



सत्यमेव जयते

**GUJARAT ELECTRICITY REGULATORY COMMISSION
(GERC)**

AHMEDABAD

**TARIFF ORDER
FOR
Uttar Gujarat Vij Company Limited (UGVCL)**

Case No. 945 of 2008

17 January 2009

C O N T E N T S

Chapter	Title	Page
1	Introduction	1
2	Summary of MGVCL's Tariff Petition	6
3	Brief outline of objections raised, response from MGVCL and Commission's comments	8
4	Analysis of ARR and Commission's Decisions	21
5	Capital Expenditure Plan	68
6	Compliance to Directives and Fresh Directives	74
7	Fuel and Power Purchase Cost Adjustment	85
8	Open Access – Transmission Charges, Wheeling charges and cross subsidy surcharge	89
9	Tariff Philosophy and Design	94
	ORDER	99
	Tariff Schedule	100

List of Tables

Table	Title	Page
4.1	Historical trend in category-wise energy sales	22
4.2	Category-wise growth rates of energy sales	23
4.3	Projected Energy sales for the control period	23
4.4	BPL Households proposed to be connected and energy consumption	24
4.5	Pending Agricultural Connections	27
4.6	Consumption of agricultural connections (Irrigation Pumpsets)	28
4.7	Total Energy Sales	30
4.8	Distribution losses Approved by the Commission	31
4.9	Energy Requirement during the control period	31
4.10	Summary of Energy Balance projected by UGVCL	32
4.11	Energy Balance approved by the Commission	32
4.12	Total Energy Requirement approved by the Commission	33
4.13	Expenses projected for the control period	33
4.14	Energy to be purchased	34
4.15	Details of PPAs Allocated	34
4.16	Power Purchase for FY 2008-09	35
4.17	Power Purchase for FY 2009-10	36
4.18	Power Purchase for FY 2010-11	37
4.19	Transmission Charges of GETCO and PGCIL	38
4.20	Projections of GUVNL's sale to licensees and trading	38
4.21	GUVNL Cost Allocation for the control period	39
4.22	GUVNL cost allocation of DISCOMs	39
4.23	Annual recurring cost of E-Urja	39
4.24	Total cost of power purchase	40
4.25	Capacities / PPA allocated to UGVCL	41
4.26	Merit Order of Stations	42
4.27	Power Purchase for FY 2008-09	43
4.28	Power Purchase for FY 2009-10	44
4.29	Power Purchase for FY 2010-11	45
4.30	Energy available and despatchable – 2008-09	46
4.31	Power purchase cost 2008-09	47
4.32	Power purchase cost 2009-10	47
4.33	Power purchase cost 2010-11	47
4.34	Transmission Charges	48
4.35	GUVNL Cost Allocation	48
4.36	GUVNL Cost Allocation to DISCOMs	51
4.37	Total power purchase costs during control period	51
4.38	O&M expenses projected for the control period 2008-11	52
4.39	Break up of O&M cost as per UGVCL	53
4.40	Provision for bad and doubtful debts projected for the control period 2008-11	55
4.41	Provision for bad and doubtful debts approved for the control period 2008-11	56
4.42	Depreciation charges projected for the control period 2008-11	56

Table	Title	Page
4.43	Capital expenditure projected by UGVCL for the control period 2008-11	57
4.44	Proposed funding of capital expenditure during the control period 2008-11	58
4.45	Sources of funding the capital expenditure approved for the control period 2008-11	59
4.46	Interest and finance charges projected for the control period 2008-11	59
4.47	Interest and finance charges approved for the control period 2008-11	60
4.48	Interest on security deposits projected by UGVCL	60
4.49	Consumer security deposit and interest approved for the	61
4.50	Interest on working capital projected for the control period 2008-11	61
4.51	Interest on working capital approved for the control period 2008-11	62
4.52	Return on equity projected for the control period	62
4.53	Other expenses projected for the control period 2008-11	63
4.54	Capitalization of O&M expenses approved for the control period	63
4.55	Provision for tax projected by UGVCL for the control period 2008-11	64
4.56	Income tax approved by the Commission for the control period 2008-11	64
4.57	Other income consumer related projected by UGVCL	64
4.58	Other income consumer related approved for the control period 2008-11	65
4.59	Non – Tariff income projected by UGVCL for the control period	65
4.60	Non-tariff income approved for the control period 2008-11	66
4.61	Revenue from current tariff projected by the control period 2008-11	66
4.62	Category-wise Sales and Revenue at current tariffs approved by the Commission for the control period 2008-11	66
4.63	Revenue requirement as projected by UGVCL and as approved by the Commission for the control period 2008-11	67
5.1	Capital Expenditure proposed during the control period	68
5.2	Break up of Capex under Normal Development Scheme	71
5.3	Capital Expenditure on other new schemes	71
5.4	Pending agriculture connections – Estimates and Assumptions	72
5.5	Phasing of release of agricultural connections	72
5.6	BPL Household Connections - Estimates and Assumptions	73
5.7	Phasing of release of BPL Household connections	73
5.8	Funding of Capital Expenditure	73

Annexure

1	List of objectors	4
2	List of objectors who appeared at the public hearing and presented their objections	5

BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION AT AHMEDABAD

Case No.945 / 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 Uttar Gujarat Vij Company Limited (UGVCL). 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**

UGVCL had filed its ARR petition for the FY 2007-08 on 28.12.2006 in accordance with the Regulation 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 UGVCL, the objections by various stakeholders, response of UGVCL, issues raised during the public hearing and other relevant material, issued the order for the year 2007-08 on 31st March 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.

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

UGVCL 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 UGVCL and admitted the MYT petition of UGVCL for the control period (Case No.945 of 2008) on 14th August 2008.

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

A public notice was issued by the UGVCL 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 consumer / 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 UGVCL 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 UGVCL. 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 10th November 2008 to 20th November 2008 for presenting their views on the UGVCL petition before the Commission in the Commission's office in Ahmedabad. The names of persons and organizations who filed their objections 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 DISCOMs is briefly given in Chapter-3.

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

UGVCL gave a presentation on its proposal to the Commission on 5th November 2008.

- 1.4.4 Taking into account the issue of MYT Framework Regulations by the Commission in December 2007 and the time required for UGVCL 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.

1.4.5 **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.



List of objectors who filed objections

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 Maldebhai V. Odedara, Ranavav.
9. Shri D. G. Parmar, Veraval
10. Borsad Industries Association, Borsad
11. Central South Gujarat Salt Manufacturers Association, Bharuch.
12. Federation of Industries and Associations (Gujarat), Ahmedabad.
13. Western Railway, Mumbai
14. Shri Sunil Balkrishna Oza, Gandhinagar.
15. Laghu Udyog Bharati, Ahmedabad.
16. Dr. S.M. Rana, Vadodara
17. The Dediyan Industrial Estate Association, Mehsana.
18. The Uttar Gujarat Ice Factory Association Mehsana.
19. The Mahuva Chamber of Commerce & Industries, Bhavnagar.
20. Shri Ghanshyam R. Darji, Vadodara.
21. The Mehsana Municipality, Mehsana.
22. The Gujarat Cold Storage Association, Ahmedabad.
23. Sachin Industries Co-operative Society Ltd, Surat.
24. Shri. Dinesh Parshottamdas Rathod, Jetpur.
25. Shri. Shri Babubhai Dhanabhai Zhalavadia
26. The Southern Gujarat Chamber of Commerce and Industry and Surat Citizen's Council Trust, Surat.
27. Tax Payers – Users Consumers Association, Jamnagar.
28. Mehsana District Education Foundation, Mehsana.
29. Consumer Education and Research Society, Ahmedabad

Annexure 2

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

1. Shri Surendra B. Mehta, Bhavnagar
2. Shri Kanubhai Patel, Gujarat Krushi Vij Grahak Suraksha Sangh
3. Gujarat Hi Tension Consumer Association, Bhavnagar.
4. Gujarat Chamber of Commerce and Industry, Ahmedabad
5. Borsad Industries Association, Borsad
6. Central South Gujarat Salt Manufacturers Association, Bharuch.
7. Federation of Industries and Associations (Gujarat), Ahmedabad.
8. Western Railways, Mumbai
9. Laghu Udyog Bharati, Ahmedabad.
10. Uttar Gujarat Ice Factory Association, Mehsana.
11. Shri Ghanshyam Darji, Vadodara.
12. Mehsana Municipality, Mehsana.
13. Gujarat Cold Storage Association, Ahmedabad.
14. Sachin Industries Co-operative Society Ltd., Surat.
15. Southern Gujarat Chambers and Industry and Surat Citizen's Council Trust, Surat.
16. Mehsana District Education Foundation, Kherva, Mehsana.
17. Shri K. K. Bajaj, Consumer Education and Research Society, Ahmedabad



Chapter 2

Summary of UGVCL's Tariff Petition

2.1 Aggregate Revenue Requirement (ARR)

The Uttar Gujarat Vij Company Limited (UGVCL) 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	250190	279566	299365	330522	353509
O&M Expenses	31282	34411	37852	41637	45801
Depreciaiton	6147	7021	8123	9356	10604
Interest on loans	9056	11468	12003	12630	13275
Interest on working capital	1499	2779	3085	3412	3732
Other debits	301	316	332	348	366
Extroinary items	33	33	33	33	33
Provision for bad debts	197	263	293	326	357
Less Interest and expenses capitalized	4343	4343	4343	4343	4343
Sub total	294363	331514	356743	393921	423333
Return on equity	0	3729	8215	9043	9905
Provision for Tax	291	172	189	208	229
Total expenditure	294655	335415	365148	403172	433466
Less: Non tariff income	14406	3576	3576	3576	3576
Aggregate Revenue Requirement	280249	331839	361571	399596	429890
Revenue from sale of power		251812	281451	312971	343249
Other income consumer related		7718	8383	9104	9888
Total revenue before subsidy		259530	289834	322075	353137
Subsidy		57384	53464	50293	47594
Other subsidies		2515	2802	3084	3359
Total revenue after subsidy		319428	346101	375452	404090
Gap		12411	15471	24144	25800



UGVCL 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 UGVCL 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 UGVCL 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 UGVCL 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 PETITION

The under mentioned objectors have objected about delay in filing the petition for control period of 2008-09 to 2010-11.

1. Sachin Industrial Co-Operative Society Limited, Surat.
2. Southern Gujarat Chambers of Commerce and Industry, Surat.
3. Consumer Education and Research Society, Ahmedabad

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 petitions in 1st week of August 2008. This filing is in violation of Terms and Conditions of Tariff Regulations 2005 and MYT Regulations 2007. Hence the petition shall be rejected." Further, it is also requested that Tariff Order be implemented with a prospective date.

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 the 30th November 2007. Subsequently, the Commission placed 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 has 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 extension of time for filing upto 31st March 2008 on the request of the licensee. The GOG was consulted on the issues relating to 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 Petition under the MYT Regulations is 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 TRANSMISSION AND DISTRIBUTION LOSS

The following objectors have raised objection on projection of T&D losses in the MYT Petition for the control period for FY 2008-09 to 2010-11.

1. Shri D.G. Parmar, Veraval
2. Shri Dinesh Parshottamdas Rathod, Jetpur
3. The Southern Gujarat Chamber of Commerce & Industry, Surat
4. Shri Rameshbhai, J. Fuletra – Valsad
5. The Gujarat Hi Tension Consumers Association, Bhavnagar
6. Shri J.M. Mori & Others, Veraval
7. Shri Maldevbhai V. Odedara, Ranawav
8. The Dediyan Industrial Estate Association, Mehsana
9. Shri G.R. Darji, Vadodara

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 been increased when compared to the losses for FY 2006-07 which is a negative sign. The projected T&D losses for control period are high and they require prudent check.

Response of Licensee

The distribution losses in all feeders of UGVCL are reduced for the year 2007-08 as compared to the year 2006-07. 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
- Taking 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 AGRICULTURAL METERING

Gujarat Krushi Vij Grahak Suraksha Sangh has raised objections on "consumption and metering of agricultural connections. The directive for fixing up of meters to all unmetered agricultural services has not been followed. The inefficiencies are being accounted for in agricultural sales. The assessment of agriculture consumption is made on imaginary average connected load of 7 HP which is incorrect."

Response of the Licensee

The assessment of agricultural consumption is made by considering 7 HP average connected load on practical observation. The metering for agriculture is being done in a phased manner. Metered agricultural connections are 110202 as on 31/03/2008. The unmetered connections are 256159. It is planned for metering the balance unmetered services but there is obstruction from farm sector in fixing up meters.

Commission's view

The licensee is directed to expedite the metering of Agricultural services for proper energy accounting.

3.4 GOVERNMENT SUBSIDY

The following objectors have demanded that Government should give full subsidy as per tariff order without any burden to the consumers.

1. Gujarat Cold Storage Association, Ahmedabad
2. Southern Gujarat Chamber of Commerce and Industry, Surat
3. Shri Maldebhai V. Odedara, Ranavav
4. Dediyan Industrial Estate Association, Mehsana
5. Shri. G.R. Darji, Vadodara
6. Sachin Industrial Co-Operative Society Limited, Surat
7. Shri Surendra B. Mehta, Bhavnagar
8. Mahagujarat Janta Party
9. Uttar Gujarat Ice Factory Association, Ahmedabad
10. Laghu Udyog Bharati, Ahmedabad

Response of the Licensee

The difference between the cost of supply and revenue realization per unit is desirable to be linked with the payment of subsidy without capping by the Government of Gujarat. The tariff proposals are submitted with the concurrence/approval of Government of Gujarat only.

Commission's view

The objections and the response of the licensee are noted.

3.5 CROSS SUBSIDY

The following objectors have objected on cross-subsidy.

1. Shri Dinesh Rathod, Jetpur
2. The Laghu Udyog Bharati, Ahmedabad
3. Shri. P.S. Meena, Dy CEE. Western Railway, Mumbai
4. The Mahuva Chamber of Commerce and Industries, Mahuva
5. The Dediyan Industrial Estate Association, Mehsana

The main contention is that the Electricity Act, 2003 focused on creating competition in the Electricity Industry, protecting the consumer interest by ensuring supply to all areas, lowering the cross subsidy levels as per Section 61 of Act 2003. The difference between cost of supply and revenue realization shall be brought down in a phased manner within $\pm 20\%$ level. The agricultural sector is being supplied power at lowest cost in addition to BPL householders. This is burdening other categories.

Response of licensee

The Tariff Policy stipulates that there is a need for rationalization of tariff to various categories so that it shall be more aligned to the cost of supply within the range of $\pm 20\%$ of average cost of supply. It is difficult to implement the same within the sector as per the current realistic conditions. The state is facing acute shortage of power in peak hours and forced to buy power at a significantly higher rate to meet the peak demand, with reliable, quality, and uninterrupted supply. The agricultural sector is being supplied power for 8 hrs. This power is being supplied in off-peak hours / night hours when average cost of purchase of power is low. The socio-economic situation of power consumers cannot be neglected, as it is the primary responsibility of the licensee and Government of Gujarat to supply power to such consumers at affordable rates. The utilities are working with the principle of cross subsidizing some part of consumers, on the basis of cost to serve, without much affecting either the licensee or the consumers.

Commission's view

The objections and response of the licensee are noted. It may not be possible to eliminate cross-subsidy totally for the present. The Commission is attempting to reduce cross-subsidy in a phased manner.

3.6 BAD DEBTS

The following objectors have raised objections for providing a part of amount for waiver as unrecoverable debts instead of timely monitoring dues for effective realization. So the



licensee should be made responsible for accountability of outstanding dues not realized in time.

1. The Southern Gujarat Chamber of Commerce and Industry, Surat
2. The Federation of Industries and Association, Ahmedabad
3. The Sachin Industrial Cooperative Society Limited, Surat
4. The Gujarat Krushi Vij Grahak Suraksha Sangh, Visnagar

Response of Licensee

Some amounts are out standing from Consumers despite of persuasion. This stands as unrecoverable amount. This amount is less than 0.1% of revenue of the company and it is waived and charged to PL account under the head bad debt. The company has waived Rs. 166 lakh during FY 2007-08.

Commission's view

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

3.7 TARIFF RELATED

The following objectors have raised objections on tariff related issues and the main contentions of the objectors are noted below:

1. Shri Dinesh Parshottamdas, Jetpur
2. The Laghu Udyog Bharati, Ahmedabad
3. Shri P.S. Meena, Dy CEE, Western Railways, Mumbai
4. The Dediyan Industrial Estate Association, Mehsana
5. The Mahuva Chamber of Commerce and Industry, Mahuva
6. The Gujarat Chamber of Commerce and Industry, Ahmedabad
7. The Central South Gujarat Salt Manufacturer Association, Bharuch
8. The Gujarat Cold Storage Association, Ahmedabad
9. Shri. G.R. Darji, Vadodara
10. Shri Maldevbhai V. Odedara, Ranavav
11. The Mehsana District Education Foundation, Kherva
12. Tax Payers'-Users Consumers Association, Jamnagar
13. Shri M.H. BrahmaBhatt, Mehsana
14. Shri Ramesh Bhai, J. Fuletra, Valsad
15. Akhil Gujarat Grahak Seva Kendra, Ahmedabad
16. The Sachin Industrial Co-operative Society Limited
17. The Federation of Industries & Association, Ahmedabad
18. The Southern Gujarat Chamber of Commerce & Industry, Surat

The main contention of the objectors are:

“There is abnormal increase in tariff in the proposed MYT period 2008-09 to 2010-11. The licensee shall improve the internal performance to absorb the increased cost of inputs. There shall be a degree of justification in the tariff being increased to. The consumers shall not be made liable to pay higher than the justified tariff”.

Response of licensee

The tariff was not increased for the last 7 years. The licensee is able to absorb the significant increase in power purchase cost and other expenses by improving the internal efficiency namely: reduction in distribution losses, improved billing and collection, etc. The situation to raise the tariff for the MYT period became inevitable due to sharp rise in the cost of fuels across the world, especially in the last few years, on account of which it may not be possible for the licensee to absorb all the multi fold cost increases unless there is some increase in tariffs at least to certain categories. It is prayed to admit the tariff petition for the MYT Period.

Commission's view

The Commission determined tariffs for various categories after detailed analysis and prudence check of the proposal.

3.8 NIGHT HOURS SUPPLY

The following objectors have requested for extension of night hours supply benefit to LT industrial consumers also.

1. Shri Surendra, B. Mehta, Bhavnagar
2. Mahagujarat Janta Party, Gujarat
3. The Gujarat Krushi Vij Grahak Suraksha Sangh, Visnagar
4. Professor Manubhai Shah, Ahmedabad
5. The Sachin Industries Co-operative Society Limited, Surat
6. The Southern Gujarat Chamber of Commerce and Industry, Surat

Response of Licensee

The objective of giving night hours usage benefits to special category of HT consumers to shift their demand to off-peak hours to maintain grid discipline. The power consumers using 24 hours supply are not covered under this concession. The concession is given on energy consumption during night hrs in excess of 1/3rd of the total consumption of that month. Since it is difficult for LT consumers to shift their demand to off-peak hours the night hour consumption benefit shall not be extended to them.

Commission's view

The Commission has noted the objection and response of the licensee. Night hours tariff is introduced for LT industry also.



3.9 TIME OF CHARGE BELOW 500 KVA IN HT CONNECTIONS

The following objectors have raised the objection on time of use charge to below 500 KVA HT consumers in the MYT petition for FY 2008-09 to 2010-11.

1. The Uttar Gujarat Ice Factory Association, Mehsana
2. The Gujarat Cold Storage, Ahmedabad
3. The Mehsana District Education Foundation, Kherva
4. The Mehsana Municipality, Mehsana
5. The Gujarat High Tension Consumer Association, Bhavnagar

Response of Licensee

The cost of supply in peak hours is higher and network requirement for peak hours is also high. Tariff frame is devised to allow recovering the peak hour tariff charges. Time of use charges to below 500 KVA HTP-1 connections are proposed to flatten the peak load curve. The off-peak hour charges to LT water works category are proposed to have affordable rate.

Commission's view

The objection of the Consumers and response of licensee are noted. Introduction of ToU is necessary to control power supply during peak-hours.

3.10 REACTIVE CHARGES

The following objectors have raised objection that "Reactive charges are being recovered from 50 HP and above consumers in the existing tariff. It is not proper to propose the reactive charges for 10 HP and above consumers, which may burden small consumers in the category of residential, commercial and industrial. The power factor improvement can be achieved by providing capacitors at sub stations and transformers. The present system can be continued and proposals of licensee shall be rejected.

1. The Mehsana District Education Foundation, Kherva
2. The Uttar Gujarat Ice Factory Association, Mehsana
3. Shri P.S. Meena, Dy. CEE, Western Railways, Mumbai
4. The Laghu Udyog Bharati, Ahmedabad
5. The Gujarat Cold Storage Association, Ahmedabad

Response of Licensee

As per the Provision of "Electricity Supply code and related Regulations" Consumers having motive power load of 2 KW or more shall have to connect power factor corrective equipment like Shunt Capacitors.

In view of the intra-state ABT to be introduced in state as per National Tariff Policy, the power sector is moving towards more maturity. The Power Sector is now going to be monitored on Real Time basis.

In view of the above, it is the prime responsibility of every consumer to maintain the PF at 0.9 or more. To maintain the grid discipline, UGVCL has proposed “Reactive Energy Charge” to be recovered from the consumers having 10 HP or more contracted demand under LT Industrial (Motive Power) category.

Commission’s view

The commission has noted the objection / response of the licensee and has taken appropriate decision.

3.11 FPPPA CHARGES

The following objectors have raised the objection in respect of fuel cost adjustment charges being collected at 12 Ps/KWH from 01/04/2007 till last quarter. The projection of Rs. 0.12 in the proposal is beyond facts, and hence the proposal may please be rejected.

1. The Laghu Udyog Bharati, Ahmedabad
2. Shri P.S. Meena, Dy CEE, Western Railways, Mumbai
3. The Sachin Industries Cooperative Society Limited, Surat
4. The Dediyan Industrial Estate Association, Mehsana
5. The Southern Gujarat Chamber of Commerce and Industry
6. The Gujarat Chamber of Commerce and Industry, Ahmedabad

Response of Licensee

The licensee has not taken the high power purchase cost prevailing at that time. The average power purchase is considered for the first six months of FY 2007-08 on the expense side and FPPPA at Rs. 0.12 prevailing at that time on revenue side. The FPPPA depends on incremental variable cost which depends on MU only but not on MW.

Commission’s view

The consumer’s objection and response of licensee are noted and appropriate decision taken.

3.12 CAPITAL EXPENDITURE OF GOLDEN GOALS

The Mahuva Chamber of Commerce and Industries, Mahuva have raised the objection on “Golden Goals” programme and its capital expenditure on the programme.

Response of Licensee

The ‘Golden Goal’ Scheme is a State Government programme for golden jubilee celebrations of the State. All DISCOMs have initiated as a part of “Golden Goal” celebration programme by releasing all pending agricultural applications and giving connections to BPL householders. This programme is started in consultation with Government of Gujarat. It is considered 100% funding support to BPL households and 10% grant for releasing agricultural connections.

Commission’s view

The consumer objection / response of licensee are noted. UGVCL should impress upon the State Government to provide 100% grant for the “Golden Goal” programme.



3.13 FIXED CHARGES AND ENERGY CHARGES

The following objectors have raised objection that the proposal to increase the fixed charges at 6%, 4% and 2% in MYT Control Period both in LT and HT MD charges is not justified. It is requested to restrict increase of the fixed charges and MD charges during control period 2008-09 to 2010-11.

1. The Laghu Udyog Bharati, Ahmedabad
2. The Southern Gujarat Chamber of Commerce and Industry, Surat
3. The Gujarat Cold Storage Association, Ahmedabad
4. The Uttar Gujarat Ice Factory Association, Mehsana
5. The Gujarat Hi Tension Consumers Association, Bhavnagar
6. Shri Surendra B. Mehta, Bhavnagar

Response of Licensee

The basic commercial principle is to recover the fixed cost through fixed charges. The company is recovering very little amount as fixed charges. To meet the projected revenue requirement, the company has proposed to increase fixed and energy charges. The overall increase is 6%, 4% and 2% in the proposal during the control period.

Commission's view

The objections of consumers and response of licensee are noted and has taken appropriate decision on revision of fixed charges.

3.14 LTP IV TARIFF REINTRODUCTION

The Uttar Gujarat Ice Factory Association, Mehsana has raised objection on abolition of LTP-IV tariff.

The main contention is that "Due to lack of proper publicity and awareness the LTP IV tariff could not be popularized. There is advantage for small scale industries and seasonal industries by this tariff for promoting the small industries livelihood".

Response of Licensee

The LTP IV tariff was introduced in the year 2000 exclusively for night hours usage. As a part of rationalization of tariff LTP IV has been deleted.

The licensee has no objection to reintroduce the night hours category LTP IV.

Commission's view

The objection of the consumers and response of DISCOM are noted and introduction of LTP-IV tariff is agreed to.

3.15 FORUMS ESTABLISHMENT AND PROPER SERVICES TO CONSUMERS

The following objectors have contended that "the grievances of the consumers are not properly solved. The forums are not functioning in full spirit of its establishment." There are number of unscheduled interruptions causing much damage to the productivity system.

Resolving of complaints properly and reliable quality of supply is requested from the licensee.

1. The Central South Gujarat Salt Manufacturer Association, Bharuch.
2. The Sachin Industries Co-Operative Society Limited, Surat.
3. Shri. P.S. Meena, Dy CEE. Western Railway, Mumbai
4. The Gujarat Krushi Vij Grahak Suraksha Sangh, Visnagar
5. The Southern Gujarat Chamber of Commerce and Industry, Surat.
6. Shri Surendra B. Mehta, Bhavnagar

Response of Licensee

The licensee has established a Forum to resolve grievances in addition to forming a committee at sub-divisional level, division level and circle level to redress grievances.

Call centres are established to resolve the grievances with a toll free number. The field officers are provided with CUG mobile phones, so that the affected consumer can directly contact them for solving their problems. Necessary steps are taken to resolve the grievances of consumers as per the standards of performance (SOP).

Commission's view

The licensee has not explained on the delays in the redressal of grievances. It has to be ensured that the grievances are redressed within the time frame prescribed.

3.16 TRACTION TARIFF

Shri P S Meena, Dy. CEE/TRD, Western Railways, Mumbai have stated that the sale of electricity to railway traction is highest at present. The policy need to be rationalized and made cost of supply at that point to the railways. The low voltage level losses shall not be made burden to the railways. The simultaneous maximum demand charges shall not be levied by fixing the tolerance maximum demand in the event of other point of supply is defunct. The maximum demand recorded at railway traction points only shall be collected.

Response of Licensee

Traction load transmits fluctuations and harmonics which are harmful to the system and generators. These are absorbed by the system of the licensee at no extra charges. Uninterrupted supply is being maintained to the extent possible, unless there is an emergency to safe guard the grid discipline.

The concept of cross subsidy is followed in India for promotion of socio-economic conditions. The charging of generation cost is not possible. The railways can opt for open access with all the conditions. The distribution network available has to serve the local demand in peak hours and it is not possible to charge on maximum demand recorded at the railway TSS. Providing of tolerance contracted demand is not possible.

Commission's view

The objection of the consumer and the response of the utility are noted.



3.17 BPL CATEGORY

The following objectors have objected that the cost of supply to BPL category of consumers is given with lowest cost price than average cost and charging the difference to other categories which is not uniform.

1. Shri Surendra B. Mehta, Bhavnagar
2. Shri Umeshbhai Patel, Laghu Udyog Bharati, Ahmedabad

Response of Licensee

Creation of new BPL category consumer slab under urban and rural residential lighting is in line with the principles of national electricity policy and tariff policy. The monthly consumption slab is upto 30 units.

Commission's view

The Commission has noted the objection of the consumers and response of the licensee and has taken appropriate decision.

3.18 DELAYED PAYMENT CHARGES

The Laghu Udyog Bharti has objected that the delayed payment surcharges collected are not shown in revenue. The surcharges are more than the interest given on security deposits. This needs to be examined.

Response of Licensee

If the consumer did not pay the bill assessed within the time prescribed, it reflects as an arrear and it is not a revenue item. Delayed payment charges are accounted under head of non-tariff income. The interest on working capital is an expenditure. The DISCOM is making all out efforts to improve the collection efficiency. The security deposit is only an amount deposited towards cost of supply made to the consumers to recover revenue upto the date of disconnection and during the disconnection period.

Commission's view

The surcharge is not interest but is a penalty. Hence it is appropriate to levy penalty for belated payment.

3.19 ENERGY AUDIT

The Laghu Udyog Bharati, Ahmedabad suggested for periodical review and monitoring of feeder-wise/ distribution transformer-wise loss reduction and other parameters of maintenance which will have cost effect.

Response of Licensee

The feeder-wise energy audit is being conducted and reports are being reviewed and losses analysed and corrective measures taken to reduce the technical losses. PF corrective methods are enforced as per the terms and conditions of supply wherever necessary. Regarding commercial losses action is being taken to replace all defective meters and to conduct raids where theft of energy is suspected.

Commission's view

The objection and response are noted.

3.20 O&M CHARGES

The Federation of Industries and Association, Ahmedabad, have objected that the O&M costs are calculated on a fixed percentage of total revenue causing steep rise in tariff. The O&M expenses are on the higher side.

Response of Licensee

The 6th Pay Commission report resulted the raise in Employee / A&G costs.

Commission's view

The objection and response are noted and appropriate decision taken to limit the expenses to permissible limit.

3.21 THEFT OF ENERGY

The Mahagujarat Janta Party, Ahmedabad have raised the objection that the enquiry and settlement of the theft cases booked under 126 and 135 section of Act 2003 will lead to loss to DISCOM as the theft cases are booked with all key parameters and physical witnesses. This procedure may lead to fill the pockets of certain quarters. The earnings on theft cases are not shown in revenue of DISCOM.

Response of DISCOM

The application of Section 126 and 135 of Act 2003, is for assessment on malpractice and theft of energy respectively. The concerned assessing officers are finalizing the assessments duly considering the representations of the consumers as per the provisions of the Electricity Act, 2003 and GERC Regulations.

Commission's view

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

3.22 RETURN ON EQUITY

The Gujarat Hi Tension Consumers Association, Bhavnagar have raised objection that the claim of ROE at 14% under expenditure side is very high.

Response of DISCOM

The proposal made at 14% under the head of ROE is as per GERC Tariff Regulations only.

Commission's view

The objection and response are noted.

3.23 NEW CONNECTIONS

The Dediyan Industrial Estate Association, Mehsana have contended that the new connection charges collected are on higher side.

Response of Licensee

The various charges to be recovered from consumers are as per Regulations only.

Commission's view

The objection and response are noted.



3.24 HIGHER THE CONSUMPTION AND RATE IS HIGHER

The following objectors have objected that the rate per unit consumption collected is on higher side for higher consumption instead of reducing tariff.

1. Shri Rameshbhai, J. Fuletra – Valsad
2. Shri B.D. Zhalavadia, Rajkot
3. The Laghu Udyog Bharati, Ahmedabad

Response of Licensee

The state is facing acute shortage of electrical energy. The cost of generation is more expensive due to inflation in the cost of fuels. It is important to give signals to the consumers who are using energy on higher side to use it prudently. The higher rate for higher consumption is required at present.

Commission's view

The response and objection are noted.

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 purchased and the likely revenue by sale of energy. This chapter examines in detail the customer category-wise energy sales projected by the UGVCL in its Multi Year Tariff petition for the control period 2008-09 to 2010-11 for approval of ARR.

4.2 Consumer Categories

UGVCL serves over 19 lakh consumers within its licensed area and the consumers are categorised 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

UGVCL 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.

UGVCL 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

UGVCL has furnished the category-wise energy sales over the last six years (2002-03 to 2007-08) 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 UGVCL are shown in Table 4.1 below:

Table 4.1
Historical trend in category-wise energy sales

MUs

Tariff Category	2003	2004	2005	2006	2007	2008
LT consumers						
Residential	545	601	662	744	828	915
Commercial	150	171	194	225	247	289
Industrial LT	456	478	521	556	588	617
Public Lighting	25	27	28	31	32	34
Agriculture	5390	4827	5017	5444	5707	5825
Public Water works	264	269	308	343	365	374
LT Total	6831	6373	6730	7343	7769	8054
HT consumers						
Industrial HT	1262	1389	1617	1498	1810	2180
Railway traction	12	12	12	11	11	11
HT Total	1274	1401	1629	1509	1821	2191
Total	8104	7774	8359	8852	9590	10245

The category-wise growth rates as furnished by UGVCL 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 2007	YoY 2008
LT consumers				
Residential	11.0%	11.8%	11.3%	10.5%
Commercial	13.3%	12.9%	10.0%	16.9%
Industrial LT	6.6%	6.3%	5.9%	4.8%
Public Lighting	6.5%	7.6%	4.5%	4.9%
Agriculture	1.4%	6.7%	4.8%	2.1%
Public Water works	8.5%	8.9%	6.5%	2.3%
LT Total	3.3%	7.4%	5.8%	3.7%
HT consumers				
Industrial HT	9.4%	5.8%	20.8%	20.4%
Railway traction	-1.0%	-2.9%	2.8%	-2.7%
HT Total	9.4%	5.7%	20.7%	20.3%
Total	4.3%	7.1%	8.3%	6.8%

Based on the above growth rates of energy sold, UGVCL 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	1049	1191	1347
Commercial	326	365	405
Industrial LT	656	697	741
Public Lighting	37	39	42
Agriculture	6018	6141	6269
Public Water works	398	424	451
LT Total	8484	8858	9256
HT consumers			
Industrial HT	2442	2686	2954
Railway traction	11	11	11
HT Total	2453	2697	2965
Total	10937	11555	12221

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.



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

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

4.4.1 Residential

The sales to this category constitutes about 8.93% of total energy sales of the company. UGVCL has projected the energy sales to residential category at 1049 MU for 2008-09, 1191 MU for 2009-10 and 1347 MU for 2010-11. A growth of 11.8% (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.)	72622	57564	57487
2	Cumulative number of connections (Nos.)	72622	130186	187673
3	Total additional energy supplied (MUs)	26	47	68
4	Additional load added (MW)	7	13	19

As seen from Table 4.2 the growth rates witnessed over a 5 year and 3 year periods are 11.0% and 11.8% respectively, and the growth during 2006-07 over 2005-06 was 11.3% and that of 2007-08 over 2006-07 is 10.5%. UGVCL has considered a mid-term growth of 11.8% (3 year CAGR) which it expects to continue during the control period.

The growth of sales during the last 6 years is consistent between 10.5 to 11.8%. Hence, the growth of 11.8% estimated by UGVCL is considered reasonable as it is consistent with past growth and hence 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. UGVCL has estimated the energy consumption by BPL households at about 30 units / month per household which gives a consumption of one unit / day. The assumption is considered 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	1049	14.6
2009-10	1191	13.54
2010-11	1347	13.00

4.4.2 Commercial

The sale to this category constitutes about 2.82% of the total sales of the company.

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

2008-09	326 MU
2009-10	365 MU
2010-11	405 MU

The company has considered a growth of 12.90% which is a midterm growth during 2004-05 and 2006-07 (3-year CAGR) and it expects the same level of growth during 2008-09 and expects to reduce by 1% each in subsequent years of the control period, which would be 11.9% during 2009-10 and 10.9% during 2010-11.

As seen from Table 4.2, there has been a growth of 13.30% during the 5-year period 2003-07, 12.90% during the 3-year period 2005-2007, and YOY growth of 10.0% during 2007 and 16.9% during 2008. The high growth of 13.3% (5-year growth) has not sustained during the 3-year period and also during 2006-07. But the YOY growth was about 16.9% during 2007-08. Though the growth during 2007-08 is 16.9%, it is reasonable to consider the 3-year CAGR (2005-2007), midterm growth during the control period as projected by the company, as growth of 16% may not sustain as seen in the past.

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

Year	Energy (MU)
2008-09	326
2009-10	365
2010-11	405

4.4.3 Industrial (LT)

The consumption of this category accounts for 6.0% of total energy sales of the company.

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

2008-09	656 MU
2009-10	697 MU
2010-11	741 MU

The company has considered a growth of 6.3% based on three year growth. The five year (2003-07) CAGR of this category was 6.6%, and that of 3 year (2005-07) was 6.3%. The YOY growth rate during 2007 and 2008 were 5.9% and 4.8% respectively. The growth rate has come down from 6.6% during the 5 year period to 6.3% during the 3 year period and further to 5.9% and 4.8% during 2007 & 2008. Since the growth assumed is in line with past growth which was fairly consistent the rate of 6.3% 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	656
2009-10	697
2010-11	741



4.4.4 Public Lighting

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

2008-09	-	37 MU
2009-10	-	39 MU
2010-11	-	42 MU

The company has considered a growth rate of 7.6% based on the growth during the period 2004-05 to 2006-07 (3 year CAGR)

The growth of this category over a five year period (2003 to 2007) and 3 year period (2005-07) were 6.5% and 7.6% respectively. The YOY growth during 2006-07 and 2007-08 were 4.5% and 4.9%. The growth of this category was 7.6% over the 3 year period but has come down to 4.5% and 4.9% during 2006-07 and 2007-08 respectively. The growth for public lighting is normally steady. The company has assumed the 3 year growth of 7.6%, the highest during the last 5 years. In view of the load condition and the potential for growth, the growth of 7.6% assumed by the company is approved. Since the consumption of the category is only 0.33%, any variation will not have much impact on the total sales.

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

2008-09	–	37 MU
2009-10	–	39 MU
2010-11	–	42 MU

4.4.5 Agricultural (Irrigation Pumpsets)

The consumption by agricultural (irrigation pumpsets) accounts to about 57.0% 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, UGVCL has projected the energy sales to this category during the control period as below:

2008-09	-	6018 MU
2009-10	-	6141 MU
2010-11	-	6269 MU

The company has considered a growth of 3.0% based on the growth during the year 2007-08 and additional connections under “Golden Goal” programme of State Government. The growth rate is applied only for the metered category and the number of unmetered is constant as no more 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 UGVCL that the State Government has set target for release of all pending agricultural connections under “Golden Goal” programme. The estimated release of additional connections in UGVCL area would be as in Table 4.5 below:

Table 4.5
Program for release of Agricultural Connections

Release of pending Agriculture Connections	Unit	FY 2008-09	FY 2009-10	FY 2010-11
Number of New Agriculture Connections	Nos.	4667	4667	4667
Cumulative number of Connections	Nos.	4667	9333	14000
Additional sales	MUs	67	135	202
Additional Load Added	HP	39667	79333	119000
Additional Load Added	MW	30	59	89

As mentioned the growth rate applied is only for metered connections which had been varying between 2,000 to 6,000 / annum during the last 5 years. The other connections are un-metered which are 1,53,556 and no more un-metered connections are being added.

The 3-year (2005-07) growth rate is about 6.7% but the growth during 2006-07 is 4.8% and during 2007-08 it is about 2.1%. The company has taken 6.7% growth including the additional connections to be released under “Golden Goal” programme. The number of services likely to be added annually is considered as 4667 and it 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 6.7% for metered connections. The Commission also approves 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 UGVCL has furnished the consumption of different categories in the MYT Petition. The consumption varies from 496 to 968 units/HP/year. It is submitted by UGVCL 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 connection - 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.	Unmetered	153556	2916053	4957
2.	Metered	55580	1058690	852
3.	New Connections (metered)	4667	39667	26
4.	Total	213803	4014410	5835
	2009-10			
1	Un-metered	153556	2916053	4957
2	Metered	56378	1122213	910
3	New Connections (metered)	9333	79333	52
4	Total	219267	4117599	5919
	2010-11			
1	Un-metered	153556	2916053	4957
2	Metered	57186	1189044	971
3	New Connections (metered)	14000	119000	78
4	Total	224742	4224097	6006

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

Year	Energy (MU)
2008-09	5835
2009-10	5919
2010-11	6006

4.4.6 Public Water Works

The energy sales to this category accounts for about 3.6% of total energy sales of the company. UGVCL has projected the sales to this category during the control period as below:

Year	Energy (MU)
2008-09	398 MU
2009-10	424 MU
2010-11	451 MU

The company assumed a growth of 6.5% for the control period based on the growth during 2006-07.

The 5 year CAGR (2003-07) of this category was 8.5%. It has marginally gone up to 8.9% during the next 3 year period. The growth during 2006-07 was 6.5% and it is 2.3% during 2007-08.

As mentioned by UGVCL the growth of this category may not grow beyond certain level and likely to be steady. The growth of 6.5% during the control period is a moderate growth compared to earlier years and may sustain during the control period and hence approved.

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

Year	Energy (MU)
2008-09	398
2009-10	424
2010-11	451

4.4.7 Industrial HT

The sales to this category accounts for about 21% of the total sales of the company.

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

2008-09	2442 MU
2009-10	2686 MU
2010-11	2954 MU

The consumption is assessed by the company at a growth rate of 12% during the year 2008-09 and 10% during the next two years of control period.

The 3-year growth was 5.8%. The growth was 20.8% during 2006-07 and 20.4% during 2007-08. It is submitted by UGVCL that there was spurt in growth during 2006-07 and 2007-08 at 20.8% and 20.4%. This sharp jump in sales in 2006-07 was largely on account of five large consumers being added by UGVCL during the year with a combined load of 50 MW. The company expects robust growth at a level of 12% during 2008-09 and 10% during next two years based on the demand potential. The growth level of 20% may not be sustainable. Hence the growth assumed is considered reasonable compared to past growth and hence approved.

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

Year	Energy (MU)
2008-09	2442
2009-10	2686
2010-11	2954

4.4.8 Railway Traction

The Railway traction load accounts hardly to about 0.1% of total sales. UGVCL has projected the sales to this category during the control period as below:

Year	(MU)
2008-09	11
2009-10	11
2010-11	11

The company has stated that there is no significant growth during the last two years and hence proposes to maintain consumption of 2006-07 level during the control period.



The growth during the past was negative except during 2006-07 there was some growth. The assumption to keep the consumption at 2006-07 is justified.

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

Year	(MU)
2008-09	11
2009-10	11
2010-11	11

4.4.9 Total Energy Sales

Total energy sales as projected by UGVCL 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 UGVCL			Energy Sales approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
	LT consumers						
1.	Residential	1049	1191	1347	1049	1191	1347
2.	Commercial	326	365	405	326	365	405
3.	Industrial LT	656	697	741	656	697	741
4.	Public Lighting	37	39	42	37	39	42
5.	Agriculture	6018	6141	6269	5835	5919	6006
6.	Public water works	398	424	451	398	424	451
	LT Total	8484	8858	9256	8301	8635	8993
	H.T Consumers						
7.	Industrial HT	2442	2686	2954	2442	2686	2954
8.	Railway Traction	11	11	11	11	11	11
9.	HT Total	2453	2697	2965	2453	2697	2965
10.	Grand Total	10937	11554	12221	10754	11332	11958

4.5 Distribution Losses

UGVCL 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 (%)	17.31	16.31	15.31	14.31

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

Year	Target fixed by the Commission	Actual achieved
2006-07	18.24%	15.82 %
2007-08	16.74%	17.31 %



It is submitted by the company that it could bring down the losses to 15.82% from the level of 19.45% (a reduction of 3.63%), but the loss level has gone up to 17.31% (an increase of 1.49%), during 2007-08. It is stated that it is merely due to increase in hours of supply to agriculture 10 hours against 8 hours during previous year. Since agricultural consumption is about 58% of total sales, this resulted in increase in losses and losses would be brought down to 14.3% by 2010-11.

The company had done commendable work during 2006-07 in reducing the losses by about 3.63%, but there is no justification for increase during 2007-08. The company shall bring down loss level to 16% during 2008-09 and reduce thereon at 1% every year during the next two years.

This is in line with the recommendations of 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 losses Approved by the Commission

Year	Distribution loss (%)
2008-09	16.00
2009-10	15.00
2010-11	14.00

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 UGVCL			Approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
1	Estimated Energy Sales	10937	11554	12221	10754	11332	11958
2	Distribution loss (%)	2131 (16.31)	2090 (15.31)	2041 (14.31)	2048 (16.00)	2000 (15.00)	1947 (14.00)
3	Energy input required to the distribution system	13068	13644	14262	12802	13332	13905



4.7 Energy Balance

The summary of Energy balance projected by UGVCL is as below

Table 4.10
Summary of Energy Balance projected by UGVCL

(MUs)

Sl.No.	Particulars		2006-07	2007-08	2008-09	2009-10	2010-11
1.	Energy Demand	MkWh	9590	10245	10937	11555	12221
2.	Distribution loss	%	15.82	17.31	16.31	15.31	14.31
3.	Loss Reduction Target	%	0.0	0.0	1.0	1.0	1.0
4.	Energy Requirement	MkWh	11392	12390	13068	13644	14262
5.	Transmission loss	%	4.06	3.85	4.09	4.04	3.99
6.	Total units to be input	MkWh	11874	12885	13625	14218	14855
7.	Pooled losses	MkWh	110	116	196	159	183
8.	Total input for power	MkWh	11985	13001	13821	14377	15037
9.	Overall T&D losses	%	19.98	21.20	20.87	19.63	18.73
10.	Met by						
11.	Energy billed by GUVNL	MkWh	11985	13001	13821	14377	15037
12.	Wheeled energy						
13.	Total Energy drawn	MkWh	12231	13296	13821	14377	15037

Commission's view:

The Commission has examined the energy balance worked out by UGVCL. 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 UGVCL 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	10754	11332	11958
2.	Distribution loss (MU)	2048	2000	1947
	Distribution loss (%)	16.00	15.00	14.00
3.	Energy requirement	12802	13332	13905
4.	Transmission loss	546	561	578
5.	Loss (%)	4.09	4.04	3.99
6.	Energy input to transmission system	13348	13893	14483
7.	Pooled loss	196	159	183
8.	Total energy requirement	13544	14052	14666

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

Table 4.12
Total Energy Requirement approved by the Commission

(MU)

Year	As projected by UGVCL	Approved by the Commission
2008-09	13821	13544
2009-10	14377	14052
2010-11	15037	14666

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

UGVCL has projected the Aggregate Revenue Requirement for the control period at Rs.361571 lakh, Rs.399596 lakhs and Rs.429890 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	299365	330522	353509
2.	O & M Costs	37852	41637	45801
3.	Depreciation	8123	9356	10604
4.	Interest on Loans & Finance Charges	12003	12630	13275
5.	Interest on Working Capital	3085	3412	3732
6.	Other Debits	332	348	366
7.	Extraordinary Items	33	33	33
8.	Provision for bad debts	293	326	357
9.	<i>Less Interest & Expenses Capitalised</i>	4343	4343	4343
10.	Sub Total	356743	393921	423333
11.	Return on Equity	8215	9043	9905
12.	Provision for Tax	189	208	229
13.	Total Expenditure	365148	403172	433466
14.	Less: non tariff income	3576	3576	3576
15.	Aggregate revenue requirement	361571	399596	429890

4.9 The Projected expenses by UGVCL and Decisions of the Commission

The projected expenses by UGVCL 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 UGVCL 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
Energy to be purchased

Year	Energy at Interface point	Energy at Generation Bus
2008-09	12802	13544
2009-10	13332	14052
2010-11	13905	14666

The cost of power purchase estimated by UGVCL 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 UGVCL 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 UGVCL

Allocated Generation Capacity from Stations	MW
Ukai TPS	476
Ukai Hydro	229
Gandhinagar I to IV	36
Wanakbori I to VI	656
Wanakbori VII	157
Kutch Lignite I to III	53
Kadana Hydro	121
GIPCL-SLPP	62
GMDC – Akrimota	32
GSEG Expansion	175
GSPC-Pipavav *	90
NPC - Tarapur- 1&2	80
NTPC – KORBA	180
NTPC - VINDHYACHAL – I	58
NTPC - VINDHYACHAL – II	55
NTPC – JHANOR	119
SSNNL – Hydro	58
NTPC Barh *	65
Sipat Stage-I*	162
Wind Farms (Old Policy)	6
Wind Farms (New Policy)	187
Bagasse	4
Adani Power *	200
Aryan *	20

* To be commissioned.

4.9.1.2 Merit Order Dispatch

It is submitted by UGVCL 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 plants and hydro power plants viz., Ukai, Kadana and SSNL hydro and NPC Tarapore 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 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 projected are depicted below in Table 4.16, 4.17 and 4.18 for each year of the control period.

Table 4.16
Projected Power Purchase for FY 2008-09

UGVCL: 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. Lacs)	Total Cost (Rs .Lakhs)	Per Unit Cost (Rs./Unit)
Ukai TPS	476	2580	2580	9659	37703	4013	0	0	51374	1.99
Ukai Hydro	229	392	392	1992	0	2105	0	0	4097	1.04
Gandhinagar I to IV	36	182	55	1016	1007	296	0	0	2319	4.24
Wanakbori I to VI	656	4183	4183	15388	69333	5530	0	0	90252	2.16
Wanakbori VII	157	1007	1007	5864	16578	1331	0	0	23772	2.36
Kutch Lignite I to III	53	285	285	4039	3243	431	0	0	7713	2.7
Kadana Hydro	121	72	72	4056	0	1108	0	0	5164	7.14
GIPCL-SLPP	62	391	391	4482	3725	517	0	61	8784	2.25
GMDC – Akrimota	32	202	202	3052	1239	267	0	32	4589	2.27
NPC - Tarapur-1&2	80	505	505	0	4750	667	260	181	5858	1.16
NTPC – KORBA	180	1237	1237	4507	7092	1635	637	0	13872	1.12
NTPC – VINDHYACHAL- I	58	394	394	1866	4045	520	203	0	6634	1.69
NTPC – VINDHYACHAL-II	55	376	376	2469	3702	498	194	0	6862	1.82
NTPC – JHANOR	119	836	718	5983	12397	1105	431	300	20215	2.82
SSNNL – Hydro	58	72	72	0	1471	535	37	0	2043	2.85
Sipat Stage-I	162	1050	1050	7569	17853	1388	541	0	27351	2.6
Wind Farms (Old Policy)	6	13	13	6	226	8	0	0	241	1.87
Wind Farms (New Policy)	134	270	270	0	9086	177	0	0	9263	3.44
Bagasse	4	19	19	3	585	4	0	0	592	3.04
Total	2678	14066	13821	71951	194035	22135	2303	574	290995	2.11



Table 4.17
Projected Power Purchase for FY 2009-10

UGVCL: 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)	Transmission Charges (Rs. Lakhs)	PGCIL Charges (Rs. Lakhs)	Incentive (Rs. Lacs)	Total Cost (Rs .Lakhs)	Per Unit Cost (Rs./ Unit)
Ukai TPS	476	2580	2580	9659	37703	4104	0	0	51466	1.99
Ukai Hydro	229	392	392	1992	0	2153	0	0	4145	1.06
Gandhinagar I to IV	36	182	55	1016	1007	303	0	0	2326	4.26
Wanakbori I to VI	656	4183	4183	15388	69333	5656	0	0	90378	2.16
Wanakbori VII	157	1007	1007	5864	16578	1361	0	0	23803	2.36
Kutch Lignite I to III	53	285	285	4039	3243	441	0	0	7723	2.71
Kadana Hydro	121	72	72	4056	0	1134	0	0	5190	7.18
GIPCL-SLPP	62	391	391	4482	3725	529	0	61	8796	2.25
GMDC – Akrimota	32	202	202	3052	1239	273	0	32	4595	2.28
NPC - Tarapur- 1&2	80	505	505	0	4750	682	273	181	5886	1.17
NTPC – KORBA	180	1237	1237	4507	7092	1672	669	445	14385	1.16
NTPC – VINDHYACHAL- I	58	394	394	1866	4045	532	213	141	6798	1.73
NTPC – VINDHYACHAL-II	55	376	376	2469	3702	509	204	135	7018	1.86
NTPC – JHANOR	119	836	251	5983	4331	1130	452	300	12197	4.86
SSNNL – Hydro	58	72	72	0	1471	547	39	0	2057	2.87
Sipat Stage-I	162	1050	695	11353	11821	1420	568	0	25162	3.62
Wind Farms (Old Policy)	6	11	11	0	197	9	0	0	205	1.83
Wind Farms (New Policy)	161	281	281	0	9479	217	0	0	9697	3.45
Bagasse	4	26	26	0	782	6	0	0	788	3.02
APPL	200	1296	1296	18655	19174	250	0	0	38079	2.94
Aryan	20	65	65	1132	135	13	0	0	1279	1.97
Total	2925	15443	14376	95513	199807	22941	2418	1295	321973	2.24



Table 4.18**Projected Power Purchase for FY 2010-11**

UGVCL: Power Purchase for FY 2010-11	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. Lacs)	Total Cost (Rs .Lakhs)	Per Unit Cost (Rs./ Unit)
Ukai TPS	476	2580	2580	9659	37703	4816	0	0	52177	2.02
Ukai Hydro	229	392	392	1992	0	2526	0	0	4518	1.15
Gandhinagar I to IV	36	182	55	1016	1007	356	0	0	2378	4.35
Wanakbori I to VI	656	4183	4183	15388	69333	6637	0	0	91358	2.18
Wanakbori VII	157	1007	1007	5864	16578	1597	0	0	24039	2.39
Kutch Lignite I to III	53	285	285	4039	3243	517	0	0	7799	2.73
Kadana Hydro	121	72	72	4056	0	1330	0	0	5386	7.45
GIPCL-SLPP	62	391	391	4482	3725	620	0	61	8888	2.27
GMDC – Akrimota	32	202	202	3052	1239	320	0	32	4642	2.3
GSEG Expansion	175	59	18	479	375	1800	0	0	2654	14.97
GSPP-Pipavav	90	30	9	246	193	926	0	0	1365	14.97
NPC - Tarapur- 1&2	80	505	505	0	4750	800	259	181	5991	1.19
NTPC – KORBA	180	1237	1237	4507	7092	1962	636	445	14642	1.18
NTPC – VINDHYACHAL- I	58	394	394	1866	4045	624	202	141	6879	1.75
NTPC – VINDHYACHAL-II	55	376	376	2469	3702	597	194	135	7097	1.88
NTPC – JHANOR	119	836	251	5983	4331	1326	430	300	12370	4.93
SSNNL – Hydro	58	72	72	0	1471	642	37	0	2150	3.00
NTPC Barh	65	421	421	4555	7163	668	217	0	12603	2.99
Sipat Stage-I	162	1050	802	11353	13641	1666	540	0	27200	3.39
Wind Farms (Old Policy)	6	11	11	0	197	10	0	0	207	1.84
Wind Farms (New Policy)	161	328	328	0	11058	297	0	0	11355	3.46
Bagasse	4	19	19	0	585	5	0	0	590	3.03
APPL	200	1296	1296	18242	19174	293	0	0	37709	2.91
Aryan	20	130	130	2187	270	29	0	0	2486	1.92
Total	3255	16058	15036	101435	210875	30364	2515	1295	346483	2.30

4.9.1.4 Transmission Charges

The transmission charges payable to GETCO and PGCIL as projected by UGVCL 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 PGCIL

(Rs.Lakhs)

Transmission charges	2008-09	2009-10	2010-11
GETCO charges	22135	22941	30367
PGCIL charges	2303	2418	2515
Total Transmission charges	24438	25359	32882

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 KPT, 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 employee 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

(Rs. Lakhs)

GUVNL Cost Allocation	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

Cost allocation (Rs. Lakhs)	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 UGVCL 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	17.70%
Allocation to the company	1046



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 UGVCL	2008-09	2009-10	2010-11
Power purchase cost from merit order	290995	321972	346485
GUVNL Cost + E-Urja charge	8370	8550	7024
Total	299365	330522	353509

4.10 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 four DISCOMs inherited the Distribution areas of erstwhile GEB covering whole of the State, excluding the distribution areas of the three licensees. The newly created DISCOMs do not have uniform consumer load mix. PGVCL and UGVCL have higher percentage of Agricultural load compared 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 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 PPA/stations to UGVCL during the control period compared to allocation during 2007-08. Certain additional stations are included for the control period to meet the additional demand. Otherwise 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.

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.

**Table 4.25
Capacities / PPAs allocated to UGVCL**

Allocated Generation Capacity from Stations	MW
Ukai TPS	476
Ukai Hydro	229
Gandhinagar I to IV	36
Wanakbori I to VI	656
Wanakbori VII	157
Kutch Lignite I to III	53
Kadana Hydro	121
GIPCL-SLPP	62
GMDC – Akrimota	32
GSEG Expansion	175
GSPC-Pipavav	90
NPC - Tarapur- 1&2	80
NTPC – KORBA	180
NTPC - VINDHYACHAL – I	58
NTPC - VINDHYACHAL – II	55
NTPC – JHANOR	119
SSNNL – Hydro	58
NTPC Barh	65
Sipat Stage-I	162
Wind Farms (Old Policy)	6
Wind Farms (New Policy)	187
Bagasse	4
APPL	200
Aryan	20



The total allocation in MW works out to 3281 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 UGVCL. The energy required to be purchased by UGVCL is discussed in para 4.7. The quantum of energy required to be purchased by UGVCL as approved by the Commission is given in Tables 4.11 and 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 GSECL and NTPC stations and IPPs are based on GSECL tariff order for the control period for GSECL stations and for central generating stations and IPPs figures which GUVNL has provided in MYT petition based on purchases during 2007-08 (April-September 2007). For a new generating units / stations now added in the PPAs allocated, the quantum and costs as provided by UGVCL / 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)
Wind Farms (New Policy)	3.37
Bagasse	3.00
GSEG Expansion	2.12
GSPC-Pipavav *	2.12
Aryan *	2.084
SSNNL – Hydro	2.05
NTPC – KORBA	2.03
Gandhinagar I to IV	1.84
Wind Farms (Old Policy)	1.75
NTPC – JHANOR	1.73
NTPC Barh *	1.70
Sipat Stage-I *	1.70
Wanakbori I to VI	1.66
Wanakbori VII	1.65
APPL *	1.48
Ukai TPS	1.46
Kutch Lignite I to III	1.14
NTPC - VINDHYACHAL – I	1.03
NTPC - VINDHYACHAL – II	0.98
GIPCL-SLPP	0.95
NPC - Tarapur- 1&2	0.94
GMDC – Akrimota	0.61
Ukai Hydro	0.00
Kadana Hydro	0.00

*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 UGVCL as approved by the Commission. The fixed and variable costs at GSECL stations are as approved by the Commission in Tariff Order for the control period. The fixed and variable costs of IPPs and central stations for the control period are as per the average of the bills for the first half (April – September 2007) of 2007-08. For other stations / purchases the fixed and variable costs are taken as proposed by UGVCL / GUVNL in MYT petition. 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

UGVCL: 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)	Incntive (Rs. Lakhs)
GSECL							
Ukai TPS	476	2732	2732	13708	1.50	40980	
Ukai Hydro	229	477	477	1842	0	0	
Gandhinagar I to IV	36	182	55	1379	1.75	963	
Wanakbori I to VI	656	4445	3494	19261	1.73	60446	
Wanakbori VII	157	1151	1151	6742	1.64	18876	
Kutch Lignite I to III	53	293	293	3973	1.07	3135	
Kadana Hydro	121	95	95	3408	0	0	
Tax				1106			
Sub-Total	1728	9375	8297	51419		124400	0
IPPS						0	
GIPCL-SLPP	62	391	391	4482	0.95	3715	61
GMDC – Akrimota	32	202	202	3052	0.61	1232	32
Sub-Total	94	593	593	7534		4947	93
Central Stations						0	
NPC - Tarapur- 1&2	80	505	505	0	0.94	4747	181
NTPC – KORBA	180	1237	1237	4507	0.57	7051	
NTPC – VINDHYACHAL- I	58	394	394	1866	1.03	4058	
NTPC – VINDHYACHAL-II	55	376	376	2469	0.98	3685	
NTPC – JHANOR	119	836	718	5983	1.73	12421	300
SSNNL – Hydro	58	72	72	0	2.05	1476	
Sipat Stage-I	162	1050	1050	7569	1.7	17850	
Sub-Total	712	4470	4352	22394		51288	481
Others						0	
Wind Farms (Old Policy)	6	13	13	6	1.75	228	
Wind Farms (New Policy)	134	270	270	0	3.37	9099	
Bagasse	4	19	19	3	3.00	570	
Sub-Total	144	302	302	9		9897	0
Total	2678	14740	13544	81356		190532	574



Table 4.28

Power Purchase for FY 2009-10

UGVCL: 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)	Incntive (Rs. Lakhs)
GSECL							
Ukai TPS	476	2808	2808	15014	1.50	42120	0
Ukai Hydro	229	477	477	1859	0	0	0
Gandhinagar I to IV	36	196	55	1516	1.75	963	0
Wanakbori I to VI	656	4445	3371	20736	1.73	58318	0
Wanakbori VII	157	1151	1151	6725	1.64	18876	0
Kutch Lignite I to III	53	293	293	4029	1.07	3135	0
Kadana Hydro	121	95	95	3404	0	0	0
Tax				1218			
Sub-total	1728	9465	8250	54501		123412	0
IPPs							
GIPCL-SLPP	62	391	391	4482	0.95	3714.5	61
GMDC – Akrimota	32	202	202	3052	0.61	1232.2	32
Sub-total	94	593	593	7534		4946.7	93
Central Station							
NPC - Tarapur- 1&2	80	505	505	0	0.94	4747	181
NTPC – KORBA	180	1237	1237	4507	0.57	7051	445
NTPC – VINDHYACHAL- I	58	394	394	1866	1.03	4058	141
NTPC – VINDHYACHAL-II	55	376	376	2469	0.98	3685	135
NTPC – JHANOR	119	836	251	5983	1.73	4342	300
SSNNL – Hydro	58	72	72	0	2.05	1476	0
Sipat Stage-I	162	1050	695	11353	1.70	11815	0
Sub-total	712	4470	3530	26178		37174	1202
Others						0	
Wind Farms (Old Policy)	6	11	11	0	1.75	193	0
Wind Farms (New Policy)	161	281	281	0	3.37	9470	0
Bagasse	4	26	26	0	3.00	780	0
APPL	200	1296	1296	18655	1.479	19168	0
Aryan	20	65	65	1132	2.084	1355	0
Sub-total	391	1679	1679	19787		30965	0
Total	2925	16207	14052	108000	0	196498	1295



Table 4.29

Power Purchase for FY 2010-11

UGVCL: 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)	Incnvte (Rs. Lakhs)
GSECL							
Ukai TPS	476	2808	2808	17034	1.50	42120	0
Ukai Hydro	229	477	477	1885	0	0	0
Gandhinagar I to IV	36	210	55	1557	1.75	963	0
Wanakbori I to VI	656	4445	3325	22794	1.73	57523	0
Wanakbori VII	157	1151	1151	6765	1.64	18876	0
Kutch Lignite I to III	53	293	293	4065	1.07	3135	0
Kadana Hydro	121	95	95	3410	0	0	0
Tax				1283			
Sub-Total	1728	9479	8204	58793		122617	0
IPPs							
GIPCL-SLPP	62	391	391	4482	0.95	3715	61
GMDC – Akrimota	32	202	202	3052	0.61	1232	32
GSEG Expansion	175	59	18	479	2.12	382	0
GSPC-Pipavav	90	30	9	246	2.12	191	0
Sub-Total	359	682	620	8259		5519	93
Central Stations							
NPC - Tarapur- 1&2	80	505	505	0	0.94	4747	181
NTPC – KORBA	180	1237	1237	4507	0.57	7051	445
NTPC – VINDHYACHAL- I	58	394	394	1866	1.03	4058	141
NTPC – VINDHYACHAL-II	55	376	376	2469	0.98	3685	135
NTPC – JHANOR	119	836	251	5983	1.73	4342	300
SSNNL – Hydro	58	72	72	0	2.05	1476	0
NTPC Barh	65	421	421	4555	1.7	7157	0
Sipat Stage-I	162	1050	802	11353	1.7	13634	0
Sub-Total	777	4891	4058	30733		46150	1202
Others							
Wind Farms (Old Policy)	6	11	11	0	1.75	193	0
Wind Farms (New Policy)	161	328	328	0	3.37	11054	0
Bagasse	4	19	19	0	3	570	0
APPL	200	1296	1296	18242	1.479	19168	0
Aryan	20	130	130	2187	2.084	2709	0
Sub-Total	391	1784	1784	20429		33693	0
Total	3255	16836	14666	118214		207979	1295



The energy from Wind farms 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.

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 – 2008-11

(MU)

Sl.No.	Source	Energy Available	Energy Despatchable
2008-09			
1.	Central Sector	4470	4352
2.	IPPs	593	593
3.	GSECL	9375	8297
4.	Others	302	302
5.	Total	14740	13544
2009-10			
6.	Central Sector	4470	3530
7.	IPPs	593	593
8.	GSECL	9465	8250
9.	Others	1679	1679
10.	Total	16207	14052
2010-11			
11.	Central Sector	4891	4058
12.	IPPs	682	620
13.	GSECL	9479	8204
14.	Others	1784	1784
15.	Total	16836	14666

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, UGVCL may draw power from these sources under intimation to the Commission explaining the circumstances under which the energy to be drawn from these sources.

Sector-wise power purchase and cost for the control period 2008-09 to 2010-11 are given in Tables-4.31, 4.32 and 4.33 below:

Table 4.31**Power purchase cost 2008-09**

Sl. No.	Source	Energy (MU)	Fixed Cost (Rs.lakhs)	Variable cost (Rs. lakhs)	Fixed and variable cost (Rs. Lakhs)	Incentive (Rs. lakhs)	Total cost (Rs. Lakhs)	Cost per kWh (Rs. / kWh)
1.	Central Sector	4352	22394	51288	73682	481	74163	1.70
2.	IPPS	593	7534	4947	12481	93	12574	2.12
3.	GSECL	8297	51419	124400	175819	0	175819	2.12
4.	Others	302	9	9897	9906	0	9906	3.28
5.	Total	13544	81356	190532	271888	574	272462	2.01

Table 4.32**Power purchase cost 2009-10**

Sl. No.	Source	Energy (MU)	Fixed Cost (Rs.lakhs)	Variable cost (Rs. lakhs)	Fixed and variable cost (Rs. Lakhs)	Incentive (Rs. lakhs)	Total cost (Rs. Lakhs)	Cost per kWh (Rs. / kWh)
1.	Central Sector	3530	26178	37174	63352	1202	64554	1.83
2.	IPPS	593	7534	4947	12481	93	12574	2.12
3.	GSECL	8250	54501	123412	177913	0	177913	2.16
4.	Others	1679	19787	30965	50752	0	50752	3.02
5.	Total	14052	108000	196498	304498	1295	305793	2.18

Table 4.33**Power purchase cost 2010-11**

Sl. No.	Source	Energy (MU)	Fixed Cost (Rs.lakhs)	Variable cost (Rs. lakhs)	Fixed and variable cost (Rs. Lakhs)	Incentive (Rs. lakhs)	Total cost (Rs. Lakhs)	Cost per kWh (Rs. / kWh)
1.	Central Sector	4058	30733	46150	76883	1202	78085	1.92
2.	IPPS	620	8259	5519	13778	93	13871	2.24
3.	GSECL	8204	58793	122617	181410	0	181410	2.21
4.	Others	1784	20429	33693	54122	0	54122	3.03
5.	Total	14666	118214	207979	326193	1295	327488	2.23

Transmission Costs

The transmission costs include the costs to be paid to PGCIL for regional transmission costs of GETCO for intrastate 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 UGVCL.



The transmission charges of GETCO are 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		
		2008-09	2009-10	2010-11
1.	Transmission charges of PGCIL	2303	2418	2515
2.	Transmission charges of GETCO	21028	21220	28849
3.	Total transmission charges	23331	23638	31364

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 UGVCL has projected the GUVNL costs which have to be shared by the four DISCOMs during the control period at Rs.27,393 lakhs, Rs.28,733 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 KPT and the expenditure including the power purchase cost from the stations allocated to GUVNL to supply power to the TPL and KPT 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, KPT 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 KPT. The revenue is arrived at about Rs.2.92/kWh for supply to TPL and Rs.3.79/unit to KPT. 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 is 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 KPT 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, which is about Rs.3.20 to 3.54 /kWh. Hence the cost of purchase of power by GUVNL for sale to TPL and KPT 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 extraordinary 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, KPT 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 UGVCL 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 to DISCOMs**

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

(Rs. Lakhs)

Depreciation	2826
Interest cost	2136
AMC	960
Total annual expenditure	5923
Percentage of total licenses with the company	17.7%
Allocation to the company	1046

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 UGVCL 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	272462	305793	327488
2	Transmission costs PGCIL & GETCO	23331	23638	31364
3	GUVNL costs	2276	2353	1046
4	Total power purchase cost	298069	331784	359898

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

Year	Power purchase cost (Rs. lakhs)
2008-09	298069
2009-10	331784
2010-11	359898

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 UGVCL 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 UGVCL that it is in line with the methodology adopted for generation and transmission utilities by the Commission for approval of expenses.

The UGVCL has projected the O&M expenses 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	2006-07 (Actuals)	2007-08 (Estimated)	Projection		
			2008-09	2009-10	2010-11
O&M expenses	31282	34411	37852	41637	45801

The O&M expenses for the year 2006-07 actuals were higher by about 58% over the actuals for the year 2005-06. Taking 2006-07 as base the UGVCL has estimated with 10% increase for the year 2007-08 and also every year during the control period. UGVCL 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. 1487 lakhs.
2. Additional provision of Rs. 6248 lakhs towards payment of arrears on implementation of the 6th Pay Commission Recommendations which are awaiting a final clearance.
3. The R&M expenditure in FY 2006-07 has increased by 9% as against the approved growth rate of 8% on account of enhanced activities in refurbishing and maintenance work of the building infrastructure which was neglected in the past.
4. Consequent increase in A&G expenses and increased customer care and computerization. The UGVCL has requested for approval of O&M expenses as projected for the control period.

UGVCL 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 UGVCL. Instead of furnishing the full details under each head the UGVCL has furnished the lumpsum figures even for the actuals making it difficult to analyse the past trend under each component. UGVCL 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 UGVCL in reply to a query from the Commission has submitted the break up of O&M expenses viz. Employee cost, R&M expenses and A&G expenses actuals for the years 2005-06, 2006-07 provisional for 2007-08 and projections for the control period 2008-11 as detailed in the Table 4.39 below:

Table 4.39
Break up of O&M cost as per UGVCL

(Rs. Lakhs)

Particulars	2005-06 (A)	2006-07 (A)	2007-08 (Proj)	2008-09	2009-10	2010-11
Employee cost	12906	24100	18698	29161	32077	35285
R&M expenses	4077	4447	7586	5380	5918	6510
A&G expenses	2808	2735	2930	3310	3641	4005
Total	19791	31282	29214	37851	41636	45800

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 UGVCL are the same as per annual accounts.

The O&M expenses proposed by the UGVCL for the control period are analysed as under:

Employee cost

UGVCL has projected the employees cost at Rs. 29161 lakhs for the year 2008-09, Rs.32077 lakhs for the year 2009-10 and Rs. 35285 lakhs for the year 2010-11.

It is submitted by UGVCL that an amount of Rs. 7735 lakhs had been provided in the employees cost in 2006-07 Accounts towards increase in various allowances (Rs. 1487 lakhs) on account of merger of 50% DA with the basic pay as per decision of Government of Gujarat and the estimated arrears (Rs.6248 lakhs) payable due to wage revision awaiting final decision on the 6th Pay Commission recommendations. As per annual accounts the employee costs for 2007-08 is Rs. 18698 lakhs. The Commission considers that an increase of 6% per year is reasonable. The employee cost with this 6% escalation works out to Rs.19820 lakhs for the year 2008-09, Rs.21009 lakhs for 2009-10 and Rs.22270 lakhs for 2010-11. The estimated arrears are Rs.6248 lakhs. 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.3749 lakhs) and balance 40% (Rs. 2499 lakhs) during 2009-10. The employee cost as above is approved by the Commission with an increase of 6% per annum.

2008-09	Rs. 23569 lakhs (19820 + 3749)
2009-10	Rs. 23508 lakhs (19820 x1.06 + 2499)
2010-11	Rs. 22270 lakhs



The Commission approves the employee cost at Rs. 23569 lakhs during 2008-09, Rs. 23509 lakhs during 2009-10 and Rs. 22270 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

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

2008-09	Rs. 5380 lakhs
2009-10	Rs. 5918 lakhs
2010-11	Rs. 6510 lakhs

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

(Rs. Lakhs)

Particulars	2005-06 (Actuals)	2006-07 (Actuals)	2007-08 (Actuals)	2008-09 (projected)	2009-10 (Projected)	2010-11 (Projected)
Repair & Maintenance expenses	4077	4447	7586	5380	5918	6510

It is seen that there is 9% increase in the R&M costs during the year 2006-07 against approved increase of 8%. It is submitted by UGVCL that the expenditure is high during 2006-07 on account of renewed focus on refurbishing and maintenance of building infrastructure. There is abnormal increase during 2007-08, for which no valid reasons are given. But the expenditure during 2008-09 is reduced to Rs.5380 lakhs from Rs.7586 lakhs during 2007-08. An increase of 8% was approved by the Commission for 2007-08

With the 8% increase the expenditure for 2007-08 works out to Rs.4803 lakhs. The Commission approves proposed expenditure of Rs. 5091 lakhs for the year 2008-09 with an increase of 6% for the next two years on the expenditure during 2007-08 (base year). The Commission approves the R&M expenses for the control period as under with 6% increase per annum.

(Rs. lakhs)

Particulars	2008-09	2009-10	2010-11
Repair & Maintenance expenses	5091	5397	5720

A&G expenses

UGVCL has projected the Administration and General Expenses for the control period as below:

2008-09	Rs. 3310 lakhs
2009-10	Rs. 3641 lakhs
2010-11	Rs. 4005 lakhs

The expenses for the earlier years and projected for the control period are as under:

(Rs. Lakhs)

Particulars	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
A&G expenses	2808	2735	2930	3310	3641	4005



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. 2930 lakhs
2008-09	Rs. 3106 lakhs
2009-10	Rs. 3292 lakhs
2010-11	Rs. 3490 lakhs

Summing up

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

(Rs. Lakhs)

S.N	Particulars	2008-09	2009-10	2010-11
1.	Employee cost	23569	23508	22270
2.	R&M expenses	5091	5397	5720
3.	A&G expenses	3106	3292	3490
	Total O&M expenses	31766	32197	31480

4.12 Provision for bad and doubtful debts

The UGVCL has projected the provision for bad and doubtful debts as detailed in the Table 4.40 below.

Table 4.40

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

(Rs. Lakhs)

Particulars	2006-07(A)	2007-08	2008-09	2009-10	2010-11
Provision for bad debts	197	263	293	326	357
% of sales revenue		0.10%	0.10%	0.10%	0.10%

UGVCL has mentioned that it is a very legitimate expenditure which is associated with the business risk and is a consumer related expense. UGVCL has projected the provision at 0.10% of the projected revenue from sale of power.

The UGVCL has a consumer base of about Rs. 22 lakhs by the end of March 2008 and about 78% of them are LT residential consumers.

The area of operations of UGVCL covers about 49950 Sq. Kms spreading over 4 circles in 9 districts. The Commission considers 0.10% of the revenue projected by UGVCL as reasonable towards provision for bad and doubtful debts. The provision is accordingly approved as detailed in the Table 4.41 below.



Table 4.41**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	293	326	357

The Commission approves the provision for bad debts at Rs. 293 lakhs for 2008-09, Rs. 326 lakhs for 2009-10 and Rs. 357 lakhs for 2010-11.

4.13 Depreciation

The UGVCL has claimed Rs. 28083 lakhs towards depreciation charges for the control period 2008-11 as detailed in the Table 4.42 below.

Table 4.42**Depreciation charges projected for the control period 2008-11**

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Gross block at the beginning of the year	180,177	207,132	241,022	275,141
Additions during year (Net)	26,955	33,889	34,119	34,713
Cumulative Depreciation at the beginning of the year	31,875	38,895	47,019	56,375
Depreciation for the year	7,021	8,123	9,356	10,604
Cumulative Depreciation at the end of the year	38,895	47,019	56,375	66,979
Average rate of depreciation	3.63%	3.63%	3.63%	3.63%
Net Block at the beginning of the year	148,303	168,237	194,003	218,766
Net Block at the close of the year	168,237	194,003	218,766	242,875

It is found that depreciation has been calculated taking into consideration the opening balance of assets at the beginning of the year and proposed capitalisation i.e. additional assets proposed to be brought into use during the control period. The actual average rate of depreciation worked out to 3.63% and the same rate has been adopted for projections during the control period.

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. 8123 lakhs for 2008-09, Rs. 9356 lakhs for 2009-10 and Rs. 10604 lakhs for 2010-11.

4.14 Capital expenditure

The UGVCL has projected a capital expenditure of Rs. 102721 lakhs for the control period 2008-11. The broad details of the capital expenditure for the year 2007-08 and projection for the control period are given in the Table 4.43 below.



Table 4.43
Capital expenditure projected by UGVCL for the control period 2008-11
(Rs. lakhs)

	Capital Expenditure Plan	2007-08	Control Period		
			2008-09	2009-10	2010-11
A	Distribution Schemes				
	Normal Development Scheme	5845	6000	6300	6600
	System Improvement Scheme	6000	4000	4200	4400
	Jyoti Gram Yojna	400	300	310	325
	Electrification of hutments	150	1072	920	590
	Kutir Jyothi Scheme	50	560	450	225
	Scheme for meters	1500	2000	2100	2200
	Others	250	350	450	500
	Total	14195	14282	14730	14840
B	Rural Electrification Scheme				
	TASP (Wells and Petapara)	1290	1787	1790	1795
	Special Component Plan	45	714	535	215
	REC wells (DPB, Meter, Adivashi area, OA & SPA etc.)	200	217	235	245
	BADP	50	35	40	45
	Total	1585	2753	2600	2300
C	Others				
	Energy Conservation	400	500	500	500
	Independent Certification Agency	25	10	10	15
	Total	425	510	510	515
D	Non Plan Scheme				
	RE Non Plan (Tatkal)	1200	0	0	0
	RGVY	2750	4049	3635	4064
	Total	3950	4049	3635	4064
E	Other New Schemes				
	Automatic PF Control panels	600	1100	1000	1000
	Switchable capacitors	0	0	0	0
	Aerial Bunch Conductors	200	210	215	220
	HVDS in selected sub-division	700	1200	1200	1400
	Hand held instruments	100	100	100	100
	Automatic meter reading	500	30	35	40
	GIS in cities	500	600	630	660
	Automation and computerization (IT for Consumer Grievance Redressal)	600	300	310	320
	Under ground cables	800	1000	1200	1400
	Load Shedding Transformers	800	800	500	500
	Other renovation work	800	1200	1400	1500
	Misc. Civil work	300	300	300	300
	Other schemes (Nirmal Gujarat)	100	100	100	100
	Total	6000	6940	6990	7540
F	Other schemes				
	Urban Development	800	900	1200	1000
	Total	800	900	1200	1000
G	Golden Goal Scheme				
	Pending agriculture connections	0	4454	4454	4454
	Capital expenditure Total	26955	33889	34119	34713



The distribution schemes include normal development schemes and system improvement schemes Jyotigram Yojana, electrification of hamlets. About 269465 new connections are proposed to be released during the control period. UGVCL 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. 4454 lakhs per annum during the control period. The number of agricultural connections to be issued are about 14000 in the control period

It is further mentioned by the UGVCL that it plans to issue over 1.87 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 requested 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 these service connections is covered with 100% grants, the agricultural connections are covered with 10% grant and 20% consumer contribution. Release of agriculture connections are actually un remunerative 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. The utility should however impress upon the State Government to provide 100% grants for this scheme.

The Commission approves the capital expenditure for the control period as projected by the UGVCL, 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 discussed separately.

The sources of funding the proposed capital expenditure as projected by UGVCL are detailed in the Table 4.44 below:

Table 4.44

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	5284	5391	5616	5841
Grants	4980	9175	8397	7943
Equity	9901	9385	9815	10237
Debt	6728	9938	10292	10692
Total capital expenditure	26893	33889	34119	34713



Regarding sources of funding the capital expenditure UGVCL has projected equity at about 60% and debt at about 40% 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 added during the year for ROE calculations has 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's in excess of normative 30%, the equity addition has been capped at the latter level and hence there is a difference in two entries. As per GERC Regulations the accepted debt and equity ratio is 70:30. Accordingly the sources of funding are worked out as detailed in the Table 4.5 below.

Table 4.45

Sources of funding the capital expenditure approved for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Capital expenditure	26893	33889	34119	34713
Less: Consumer Contribution	5284	5391	5616	5841
Grants	4980	9175	8397	7943
Balance Capex	16629	19323	20106	20929
Equity (30%)	4988	5797	6032	6279
Debt	11641	13526	14074	14650

The Commission observes that the above equity and debt are correctly taken by the UGVCL in calculation for return on equity and interest on loans.

The Commission approves the sources of funding the capital expenditure as detailed in Table 4.45 above for the control period.

4.15 Interest and Finance charges

The UGVCL has projected the interest and finance charges at Rs. 37908 lakhs for the control period 2008-11 as detailed in the Table 4.46 below:

Table 4.46

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	84887	88082	92800	97594
Additions	11684	13526	14075	14651
Repayments	8489	8808	9280	9759
Interest during the year	9297	9722	10234	10754
Interest on security deposit	1760	1869	1985	2109
Guarantee charges	411	411	411	411
Total interest and finance charges	11468	12003	12630	13275
Closing balance of loans	88082	92800	97594	102485
Average rate of interest	10.75%	10.75%	10.75%	10.75%
Average tenure of loans years	10	10	10	10



The UGVCL has mentioned that the interest expenses include interest paid to consumers on their security deposits and 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 UGVCL 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 4.45 above. The UGVCL 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 actual average rate of interest of 9.61% for the year 2006-07 (Actual). The guarantee charges are projected at Rs. 411 lakhs P.A. during the control period 2008-11 based on the actuals for 2006-07. Since the actuals for 2007-08 are available the guarantee charges are considered at Rs. 299 lakhs the actuals for 2007-08. The UGVCL has projected the interest charges estimating the interest at 10.75% P.A. The Commission approves the average interest charges on term loans at 10% for the control period. The interest and finance charges are worked out as detailed in the Table 4.47 below. The interest on security deposits is discussed in para 4.16 below:

Table 4.47

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

(Rs. Lakhs)

S.N	Particulars	2007-08	2008-09	2009-10	2010-11
1	Opening balance of loans	84887	88082	88353	88702
2	Additions	-	9079	9184	9270
3	Repayments	-	8808	8835	8870
4	Closing balance of loans	88082	88353	88702	89102
5	Interest charges @ 10%		8822	8853	8890
6	Interest on security deposits		1869	1985	2109
7	Guarantee charges		296	296	296
8	Total interest and finance charges (5 to 7)		10987	11134	11295

The Commission approves the interest and finance charges at Rs. 10987 lakhs for 2008-09, Rs. 11134 lakhs for 2009-10, Rs. 11295 lakhs for 2010-11.

4.16 Interest on security deposits

The UGVCL has projected interest on security deposits at Rs. 5963 lakhs for the control period 2008-11 @ 6% rate of interest as detailed in the Table 4.48 below.

Table 4.48

Interest on security deposits projected by UGVCL

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Interest on security deposits	1760	1869	1985	2109



The UGVCL 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. 44468 lakhs. The consumer security deposits relate to the growth in sales and revenue. The security deposits which were Rs. 28255 lakhs in 2005-06 increased to Rs. 44461 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 4.49 below.

Table 4.49

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	44468	48915	53806	59187
Interest @ 6%	2067	2801	3082	3390

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 UGVCL.

The Commission approves the interest on security deposits at Rs. 1869 lakhs for 2008-09 and Rs. 1985 lakhs for 2009-10 and Rs. 2109 lakhs for the year 2010-11.

4.17 Interest on working capital

The UGVCL has claimed Rs. 10229 lakhs towards interest on working capital for the control period 2008-11. The year-wise details projected by UGVCL are given in the Table 4.50 below.

Table 4.50

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	2919	3209	3529	3880
Maintenance spares escalated at 6% P.A.	1624	1721	1824	1934
Receivables	21925	24451	27138	29726
Total working capital	26468	29381	32491	35540
Rate of interest for working capital	10.50%	10.50%	10.50%	10.50%
Interest on working capital	2779	3085	3412	3732

The UGVCL 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 UGVCL 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 4.51 below:

Table 4.51
Interest on working capital approved for the control period 2008-11
(Rs. Lakhs)

Particulars	2008-09	2009-10	2010-11
O&M expenses one month	2467	2683	2623
Spares 1% with 6% increase P.A.	1721	1824	1934
Receivables	29328	32343	34790
Working capital	33516	36850	39347
Interest on working capital @ 10.25%	3435	3777	4033

The Commission therefore approves the interest on working capital at Rs. 3435 lakhs for the year 2008-09, Rs.3777 lakhs for 2009-10 and Rs.4033 lakhs for the year 2010-11.

4.18 Return on equity

The UGVCL has projected the return on equity at Rs. 27163 lakhs for the control period as detailed in the Table 4.52 below.

Table 4.52
Return on equity projected for the control period
(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Opening equity capital	50772	55780	61576	67608
Addition during the year	5007	5797	6032	6279
Closing equity	55780	61576	67608	73887
Average equity	53276	58678	64592	70748
Opening free reserves	23888	22609	25027	28038
Addition during the year	3729	8215	9043	9905
Less: Reserves transferred to equity	5007	5797	6032	6279
Closing free reserves	22609	25027	28038	31664
Average reserves	23248	23818	26533	29851
Reserves considered for ROE	5007	5797	6032	6279
Equity for Capex	5007	5797	6032	6279
Rate of ROE	7.0%	14.0%	14.0%	14.0%
Return on average equity	3729	8215	9043	9905

The UGVCL 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, 2005. In this regard UGVCL 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 Commission, accordingly, approves the return on equity at Rs. 8215 lakhs for 2008-09, Rs. 9043 lakhs for 2009-10 and Rs. 9905 lakhs for 2010-11.

4.19 Other expenses

The UGVCL has projected the other debits and extraordinary items under other expenses as detailed in the Table 4.53 below.

Table 4.53
Other expenses projected for the control period 2008-11

(Rs. Lakhs)

Other expenses	2007-08	2008-09	2009-10	2010-11
Other debits	316	332	348	366
Extraordinary items	33	33	33	33

UGVCL has submitted that other debits have been projected with an annual escalation of 5% P.A. during the control period 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 recover frequently or regularly. Other debits primarily include material cost variance and other miscellaneous losses.

The Commission approves the other debits and extraordinary items as projected by UGVCL for the control period.

4.20 Capitalization of expenses

The UGVCL has projected Rs. 4343 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.

When this was pointed out, the DISCOM has replied that the interest expenses capitalized have been adjusted in the interest expenses itself while for other expenses such as O&M and depreciation, capitalisation has been adjusted separately.

The Commission obtained the annual accounts for 2007-08 (Proj.) and the expenses capitalized were Rs. 5079 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 4.54 below.

Table 4.54
Capitalization of O&M expenses approved for the control period

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Expenses capitalized	5079	5384	5707	6049

The Commission, accordingly approves the capitalization of O&M expenses at Rs. 5384 lakhs for 2008-09, Rs. 5707 lakhs for 2009-10 and Rs. 6049 lakhs for 2010-11.



4.21 Taxes

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

Table 4.55

Provision for tax projected by UGVCL for the control period 2008-11

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Provision for tax	172	189	208	229

UGVCL 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 FBT 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 UGVCL.

The fringe benefit tax is worked out as detailed in the Table 4.56 below:

Table 4.56

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

(Rs. Lakhs)

Particulars	2008-09	2009-10	2010-11
Employee cost	1881	23685	25106
Fringe Benefit Tax @ 0.5% of E.C	118	118	111

The Commission accordingly approves the provision of tax at Rs. 118 lakhs for 2008-09, Rs. 118 lakhs for 2009-10 and Rs. 111 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 UGVCL has projected the other consumer related income as detailed in the Table 4.57 below for the control period.

Table 4.57

Other consumer related income projected by UGVCL

(Rs. Lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Rental for metered service lines	2872	3119	3388	3679
Recoveries for theft of power	1694	1840	1999	2171
Wheeling charges	27	30	32	35
Miscellaneous charges	3125	3394	3686	4003
Total	7718	8383	9104	9888



UGVCL 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 8.61% per annum.

The Commission has obtained the annual accounts for 2007-08 (Pro). The other income for 2007-08 as per accounts was Rs. 7019 lakhs. The year-wise growth rates of consumers for the control period projected by UGVCL are 9.7% in 2008-09, 8.6% in 2009-10 and 8.3% 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 4.58 below.

Table 4.58
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	7019	7700	8362	9056

The Commission, accordingly, approves the other consumer related income at Rs. 7700 lakhs for 2008-09, Rs. 8362 lakhs for 2009-10 and Rs. 9056 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 UGVCL has projected the non-tariff income as detailed in the Table 4.59 below for the control period.

Table 4.59
Non – Tariff income projected by UGVCL for the control period
(Rs. lakhs)

Particulars	2007-08	2008-09	2009-10	2010-11
Interest on staff loans and advances	89	89	89	89
DPC charges HT & LT	2290	2290	2290	2290
Income from trading	107	107	107	107
Gain on sale of fixed assets	51	51	51	51
APDRP incentive	0	0	0	0
Miscellaneous receipts	1039	1039	1039	1039
Total	3576	3576	3576	3576

UGVCL 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 has not been considered for projections.

The non-tariff income other than subsidies and incentives for the control period has been projected at Rs. 3576 lakhs at the level of actuals for 2006-07 for the entire control period without any escalation.

The non-tariff income other than APDRP incentive which was Rs. 3065 lakhs in 2005-06 increased to Rs. 3816 lakhs in 2007-08 (actuals) and the year on year growth is about 24%. This cannot be applied to projection. Further UGVCL accounted for Rs. 10830 lakhs in 2006-07 and Rs. 8486 lakhs during 2007-08 towards APDRP incentive. This scheme is



closed in 2007-08 and as such this incentive cannot be projected for the control period. 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 4.60 below:

Table 4.60
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	3816	4045	4288	4545

The Commission, accordingly approves the non-tariff income at Rs. 4045 lakhs for 2008-09, Rs. 4288 lakhs for 2009-10 and Rs. 4545 lakhs for 2010-11.

4.24 Revenue from existing tariff

The UGVCL has projected the revenue from existing tariff as detailed in the Table 4.61 below for the control period 2008-11.

Table 4.61
Revenue from current tariff projected by the control period 2008-11

(Rs. Lakhs)

Particulars	2008-09	2009-10	2010-11
Sales revenue	233607	253827	275802
Agriculture (compensation)	34317	34486	34661
Total	267924	288313	310462

The expected revenue from current tariff on the basis of sales approved by the Commission based on the unit rate given in Form-D-5 of MYT petition is worked out as detailed in the Table 4.62 below:

Table 4.62
UGVCL: 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	1049	2.88	30211	1191	2.87	34182	1347	2.87	38659
2	Commercial	326	4.87	15876	365	4.85	17703	405	4.83	19562
3	Industrial LT	656	4.48	29389	697	4.45	31017	741	4.42	32752
4	Public Lighting	37	3.42	1265	39	3.42	1334	42	3.42	1436
5	Agriculture (With Tariff Compensation)	5835	1.07	62435	5919	1.06	62741	6006	1.05	63063
6	Public Water Works	398	2.77	11025	424	2.77	11745	451	2.77	12493
7	Total LT	8301		150201	8635		158722	8992		167965
II	HT Consumers:									
8	Industrial HT	2442	4.72	115262	2686	4.71	126511	2954	4.7	138838
9	Railway Traction	11	5.49	604	11	5.49	604	11	5.49	604
10	Total HT	2453		115866	2697		127115	2965		139442
11	Total Revenue (With Agricultural Compensation) (7+10)	10754		266067	11332		285837	11957		307407



4.25 The summary of revenue requirement for the control period 2008-11 as projected by UGVCL and as analysed and approved in the preceding paragraphs is given in Table 4.63 below.

Table 4.63
Revenue requirement as projected by UGVCL and as approved by the Commission for the control period 2008-11

Rs.lakhs

S.No.	Particulars	As projected by UGVCL				Approved by the Commission		
		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	279566	299365	330522	353509	298069	331784	359898
2	O & M Expenses	34411	37852	41637	45801	31766	32197	31480
3	Depreciation	7021	8123	9356	10604	8123	9356	10604
4	Interest on Loans & Finance Charges	11468	12003	12630	13275	10987	11134	11295
5	Interest on Working Capital	2779	3085	3412	3732	3435	3777	4033
6	Other Debits	316	332	348	366	332	348	366
7	Extraordinary items	33	33	33	33	33	33	33
8	Provision for bad debts	263	293	326	357	293	326	357
9	Less : Interest & Expenses Capitalised	4343	4343	4343	4343	5384	5707	6049
10	Sub Total [(1 to 8)-(9)]	331514	356743	393921	423334	347654	383248	412017
11	Return on equity	3729	8215	9043	9905	8215	9043	9905
12	Provision for Tax	172	189	208	229	118	118	111
13	Total Expenditure (10 to 12)	335415	365147	403172	433468	355987	392409	422033
14	Less : non tariff income	3576	3576	3576	3576	4045	4288	4545
15	Aggregate revenue requirement (13-14)	331839	361571	399596	429892	351942	388121	417488
16	Revenue with existing tariff	251812	281451*	312971*	343249*	266067	285837	307407
17	Other Income consumer related	7718	8383	9104	9888	7700	8362	9056
18	Total revenue before subsidy (16+17)	259530	289834	322075	353137	273767	294199	316463
19	Subsidy	57384	53464	50293	47594	53464	50293	47594
20	Other Subsidies	2515	2802	3084	3359	2802	3084	3359
21	Total revenue after subsidy (18 to 20)	319429	346100	375452	404090	330033	347576	367416
22	Gap /(Deficit) (15-21)	12410	15471	24144	25802	21909	40545	50072

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



Chapter – 5

Capital Expenditure Plan

5.1 The UGVCL 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 Schemes are given in this chapter.

5.2 Scheme –wise Capital Expenditure for the control period

Table 5.1
Capital Expenditure proposed during the control period

(Rs. Lakhs)

	Capital Expenditure Plan	Control Period		
		2008-09	2009-10	2010-11
A	Distribution Schemes			
	Normal Development Scheme	6000	6300	6600
	System Improvement Scheme	4000	4200	4400
	Jyoti Gram Yojna	300	310	325
	Electrification of hutments	1072	920	590
	Kutir Jyothi Scheme	560	450	225
	Scheme for meters	2000	2100	2200
	Others	350	450	500
	Total	14282	14730	14840
B	Rural Electrification Scheme			
	TASP (Wells and Petapara)	1787	1790	1795
	Special Component Plan	714	535	215
	REC wells (DPB, Meter, Adivashi area, OA & SPA etc.)	217	235	245
	BADP	35	40	45
	Total	2753	2600	2300
C	Others			
	Energy Conservation	500	500	500
	Independent Certification Agency	10	10	15
	Total	510	510	515
D	Non Plan Scheme			
	RE Non Plan (Tatkal)	0	0	0
	RGVY	4049	3635	4064
	Total	4049	3635	4064
E	Other New Schemes			
	Automatic PF Control panels	1100	1000	1000
	Switchable capacitors	0	0	0
	Aerial Bunched Conductors	210	215	220
	HVDS in selected sub-division	1200	1200	1400
	Hand held instruments	100	100	100
	Automatic meter reading	30	35	40
	GIS in cities	600	630	660
	Automation and computerization (IT for Consumer Grievance Redressal)	300	310	320
	Under ground cables	1000	1200	1400
	Load Shedding Transformers	800	500	500
	Other renovation work	1200	1400	1500
	Misc. Civil work	300	300	300
	Other schemes (Nirmal Gujarat)	100	100	100
	Total	6940	6990	7540

	Capital Expenditure Plan	Control Period		
		2008-09	2009-10	2010-11
F	Other schemes			
	Urban Development	900	1200	1000
	Total	900	1200	1000
G	Golden Goal Scheme			
	Pending agriculture connections	4454	4454	4454
	Capital expenditure Total	33889	34119	34713

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

5.2.1 Rural Electrification Scheme:

TASP Wells and petapara: (Government Grant)

The company undertakes the work of rural electrification in Tribal areas under Tribal Area sub plan financed by the state Govt. for electrification of virgin areas and also extensive electrification in the areas already electrified earlier for providing such electrification facilities in tribal areas. The State Government is providing the financial assistance under TASP scheme. The scheme evolves of electrification of wells and petapararas for different circles under UGVCL. It has been estimated to electrify 1950 nos. of wells and 10 petapararas during the year 2008-09. The proposed expenditure for this works out to be Rs 1754 lakhs and Rs. 33 lakhs respectively.

Schedule Caste Sub Plan: (SCSP) (Govt. Grant)

It has been emphasized that whenever any village is electrified for all purpose, schedule cast localities and other backward areas of main village and surroundings are also covered. For such electrification of schedule cast localities, State Government is allocating grant every year for implementing the programme under SCP scheme.

It has been estimated that approximate 20000 schedule cast localities of UGVCL shall be covered under this scheme involving for tentative expenditure of Rs.714 lakhs for the year 2008-09.

Kutir Jyoti Scheme: (Govt. Grant)

This is also a similar scheme for benefiting the Tribal area. This is the grant scheme to be given by Govt. of Gujarat. It is estimated that 22400 single phase connections in Tribal area under Himatnagar and Palanpur circles will be covered under this scheme costing for capital expenditure of Rs. 560 Lakhs for the year 2008-09.

Electrification of Hutments (Gen & SCSP): (Govt. Grant)

This scheme is meant for electrification of hutments in certain slum areas situated in and around Urban and Rural areas with a view to support and help socially, economically and educationally weaker section of society, who are living in the hutments. The scheme involves energisation of single point power supply to the identified beneficiaries in consultation with local body. It has been proposed that during the year 2008-09 to cover about 30000 nos. of Hutments situated in Sabarmati, Mehsana, Himatnagar and Palanpur circles. Expenditure of about 1072 Lakhs for the above scheme for the year 2008-09 is proposed. This expenditure will be granted by Govt.



Normal RE Scheme: (Loan)

As indicated earlier, over and above electrification of wells and peta- paras in tribal areas, normal RE works are also carried out for electrification of wells. The work under this scheme are normally financed by Rural Electrification Corporation (REC). It has been estimated that during 2008-09 there will be Rs. 217 lakhs expenditure for electrification of 241wells.

5.2.2 Centrally Sponsored Scheme

Border Area Development Scheme (Grant)

This scheme is mainly meant for electrification of Border areas. Govt. of India gives the fund under grant for this scheme. During the year 2008-09 total expenditure for BADP scheme is proposed to be of Rs. 35.00 lakhs for 7 numbers of areas.

Rajiv Gandhi Gramin Viduyutikaran Yojna (RGGVY) (90% GOI Subsidy)

Govt. of India has launched the scheme RGGVY for rural electricity infrastructure and house hold electrification for providing access to electricity to all households in five years. The scheme envisages the provision of 66/11kv sub. station in rural areas, electrification of rural house holds, electrification of electrified villages and habitations, additional distribution transformer centers etc.

Of the total capital outlay subsidy component is provided at 90%. However for the project to be eligible for capital subsidy under the scheme, prior commitment of the states shall be required for deployment of franchisees for the management of rural distribution under the project. Under such arrangement non Governmental organization (NGO's), user's Associations, cooperative association or individual Entrepreneurs, the Panchayat Institutions would be associated as rural distribution franchisees. The Franchisees arrangement could be for system beyond and including feeders from substation or from including distribution transformers. The underlying basic purpose would be to prevent the pilferage of power.

Considering the scope of work as envisaged in four circles a provisional out lay of Rs. 4049 lakhs has only been estimated for the year 2008-09 for 114590 nos of connections.

5.2.3 Distribution Schemes

Normal Development Scheme (Non-Plan)

The company has to lay distribution lines up to installation of HT/LT consumers which calls for considerable investment for laying HT/LT lines, service connection lines and meters etc. For expansion of distribution system and considering the present year trend of capital expenditure under this head of work it is proposed to make provision of 6000.00 lakhs for the year 2008-09.

Table 5.2**Breakup of Capex under Normal Development Scheme**

S.N	NORMAL DEVELOPMENT SCHEME	2008-09		2009-10		2010-11	
		Phy. Nos.	Rs. Lakhs	Phy. Nos.	Rs. Lakhs	Phy. Nos.	Rs. Lakhs
1.	Lighting & Domestic connection	70000	2100	72000	2160	74000	2220
2.	LT industrial connections	2500	1000	2500	1000	2500	1000
3.	HT industrial connections	150	180	150	180	150	180
4.	Agriculture shifting connections	490	318.5	500	325	500	325
5.	Agriculture PDC to econnection	1150	805	1200	840	1200	840
6.	Agriculture Extension of load	4500	900	5100	1020	5900	1180
7.	Water works	300	180	325	195	350	210
8.	Turnkey maintenance KM	6000	180	8000	240	10000	300
9.	Other works		336		340	-	345
10.	Tatkal		0		0	-	0
11.	Total	85090	5999.5	89775	6300	94600	6600

System Improvement Scheme (Non- Plan, Non- Grant)

Every year under UGVCL new consumers are added to the distribution system and also existing consumers are demanding for additional load in their demand. Hence the system expansion is based on the consumer's requirement rather than technical requirement. This leads to increase the loading of existing system networks and requires to be improved by providing bifurcating existing feeders, renovation of lines and up gradation of system etc. during the year 2008-09 UGVCL has planned to expenditure of Rs. 40 crore.

5.1.4 Other New Schemes (Internal resources + Loan)

Apart from all above schemes, UGVCL also proposed the following different types of schemes to be implemented during the year 2008-09. The details of these schemes are appended below.

Table 5.3
Capital Expenditure on other new schemes

S.N	Description	Amount in Lakhs	source
1.	Ariel bunched conductor / UG cable	210	Non -Grant
2.	Automatic meter reading	30	Non -Grant
3.	Geographical information system	600	Non -Grant
4.	Other renovation work	1200	Non -Grant
5.	Automation & computerization	300	Non -Grant
6.	Total	2340	

5.2.5 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 lakh 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 4500 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 5.4
Pending agriculture connections – Estimates and Assumptions

Number of agriculture connections to be released	Nos.	14000
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	13363

Table 5.5
Phasing of release of agricultural connections

Phasing		2008-09	2009-10	2010-11
Number of new agriculture connections	Nos.	4667	4667	4667
Cumulative number of connections	Nos.	4667	9333	14000
Total additional units supplied	MUs	67	135	202
Additional load added	HP	39667	79333	119000
Additional load added	MW	30	59	89
Capital expenditure	Rs.lakhs	4454	4454	4454

5.2.6 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 lac connections per year across Gujarat.

The company plans to issue over 1.6 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 5.6
BPL Household Connections - Estimates and Assumptions

Number of household connections to be released	Nos.	160186
Phasing of the project	Years	3
Assumptions		
Consumption per month	KWh	30
Connected load per connection	kW	0.1

Table 5.7
Phasing of release of BPL Household connections

Phasing		2008-09	2009-10	2010-11
Number of household connections to be released	Nos.	72622	57564	57487
Cumulative number of connections	Nos.	72622	130186	187673
Total additional units supplied	MUs	26	47	68
Additional load added	MW	7	13	19

5.3 Funding

The above mentioned capital expenditure would be funded as follows:

Table 5.8
Funding of Capital Expenditure

Sl.No.	Source of Capex	2007-08	2008-09	2009-10	2010-11
1	Consumer Contribution	5284	5391	5616	5841
2	Grants	4980	9175	8397	7943
3	Equity	9901	9385	9815	10237
4	Additional Equity	0	0	0	0
5	Loans	6728	9938	10292	10692
6	GoG Loans	0	0	0	0
	Total Capital Expenditure	26893	33889	34119	34713

5.4 Commission's view:

UGVCL has outlined the works they proposed 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 UGVCL.

UGVCL 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 UGVCL are given below. The Commission has also given specific directives to the licensee wherever required.

Directive-1: Consumption by Agricultural Pumpsets

Compliance:

As per the directive issued by the Commission, the company has studied the consumption of unmetered 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 out 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

DTC Transformers Metering	As on March – 07	
Total Number of Transformers	Nos	109531
No of transformers with meters	Nos	57273
Unmetered Transformers	Nos	52258 (47.70)
Number of meters installed on transformers in FY 2007-08	Nos	34180
Number of meters installed on transformers in FY 2006-07	Nos	8996
Number of meters installed on transformers in FY 2005-06	Nos	14097

Current status of metering in Agriculture consumers is as below:

Metering of Agricultural Feeder Transformers

Metering of agriculture feeder transformers	As on March -08	
Number of Unmetered Agriculture Consumers	Nos	155966
Number of Agriculture dominated feeders	Nos	2002
Number of transformers on Ag. Dom Feeders	Nos	83359
Number of transformers metered	Nos	31475
Unmetered Transformers	Nos	51884 (62.24)

It may be noted that installation of meters on these feeders at the consumer end has so 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 Agricultural dominated feeders to understand the likely range of unmetered agriculture consumption:

Scenario Analysis: Energy Accounting on Agricultural dominated feeders

Scenario1: For FY 2006-07	Unit	
Total Units Sent on Agricultural dominated feeders	MUs	6645.06
Technical Losses on Agricultural dominated feeders	%	8.27%
Energy Available for sale	MUs	6095.51
Units billed to consumers other than unmeterd agriculture	MUs	5343.18
Connected load of unmetered agriculture on Agricultural dominated feeders	HP	2917380
Energy sent out per HP of Load to unmetered agriculture	Units	1831.50
Scenario 2: For FY 2006-07	Unit	
Total Units Sent on Agricultural dominated feeders	MUs	6645.06
Technical Losses on (Agricultural dominated feeders) + Commercial Losses (Overall)	%	15.27%
Energy Available for sale	MUs	5630.36
Units billed to consumers other than unmeterd agriculture	MUs	752.34
Energy available for sale to unmetered agriculture	MUs	4878.02
Connected load of unmetered agriculture on Agricultural dominated feeders	HP	2917380
Energy sent out per HP of Load to unmetered agriculture	Units	1672.05

Scenario 3: For FY 2006-07	Unit	
Total Units Sent on Agricultural dominated feeders	MUs	6645.06
Distribution Losses on Non-Agricultural dominated feeders	%	14.47
Energy Available for sale	MUS	5683.52
Units billed to consumers other than unmetered agriculture	MUs	752.33
Energy available for sale to unmetered agriculture	MUs	4931.19
Connected load of unmetered agriculture on Agricultural dominated feeders	HP	2917380
Energy sent out per HP of Load to unmetered agriculture	Units	1690.28



Scenario 1 indicates the pre-commercial loss figure for unmetered 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 unmetered agriculture is comparable to the current norm of 1700 units/HP/ annum.

Further to the above methods of estimation, the company has also undertaken a pilot study of about 33 feeders where complete DTC metering has been achieved to get a precise measure of the unmetered consumption.

The detailed calculation of one of them 11 kV Asanapur Feeder is as under.

Sample feeder Assessment of Agricultural Consumption

SI No	Item Descriptions	Parameters	Figures
1	Name of 11KV feeder	11 KV Ashanapur	
2	Name of s/s	66 KV Tatosan	
3	Period of study	3.12.06 to 1.12.07	
4	Nos. of day		363
5	Nos. of connections on the feeder	1 Ag metered	6 Nos
		2 Ag Unmetered	22 Nos
		Total Ag Connections	28 Nos
		3 Farm house ltg conn.	06 Nos
6	Load of the connections	1 Ag. Metered	427 HP
		2 Ag Unmetered	1430 HP
		Total Ag Connections	1857 HP
		3 Farm house ltg conn.	3 KW
7	Units Sent out at panel		3360200 kWh
8	Units billed at DTC	1 Ag Metered	720979 kWh
		2 Ag Unmetered	2477684 KWH
		Total Ag. Consumption	3198663 kWh
		3 Farm house ltg conn.	1155 kwh
		Total Consumption	3198663 kWh
9	Units Loss	(8) – (7)	160382 kWh
10	% Loss	(9)* 100/ (7)	4.77%
11	Units billed at DTC per HP per Day = Total Units/HP*Days	1 Ag metered	4.65 kWh
		2 Ag unmetered	4.77 kWh
		3 Over all Ag.	4.745 kWh
12	Units billed at DTC per HP per Day = per day*365	1 Ag Metered Conns	1698 kWh
		2 Ag Unmetered Conns	1742 kWh
		3 Overall Ag. Conns	1732 kWh



Agriculture consumption varies considerably from month to month and season to season, as well as other parameters like rain fall in that region during the year. During the month July-07, August-07 and September-07 there was a heavy rains in this area, which results in slight poor consumption per year, the impact of which has been taken in to account to get a clear picture regarding the level of consumption by the Unmetered Agriculture consumer's category.

Similarly UGVCL has carried out study for other 5 no of various feeders of different circles & area & found average consumption of 1672 kWh per HP per year & necessary data of these feeders are as under.

Circle wise sample feeder assessment

Name of circle	1	2	3	4	5	Total Avg
	Palanpur	Palanpur	Himatnagar	Mehsana	Sabarmati	
Name of 11 KV Feeder	Kamali	Amudh	Hajipur	Asanapur	Valad	
Period	2.12.06 to 01.12.07	4.12.06 to 1.12.07	1.12.06 to 01.12.07	3.12.06 to 1.12.07	4.12.06 to 25.12.06 & 5.03.07 to 30.11.07	
Nos of Days	364	362	365	363	291	
Contract load in HP	1626	2025	1234.7	1857	986	7728.7
Units sent out as per panel	2893340	4199870	2568780	3360200	1247580	14269770
Units recorded as per DTC meters	2457000	3532868	2443375	3198663	1081354	12713260
Units loss	4363.40	667002	12540	161537	166226	1556510
% loss	15.08	15.88	4.88	4.77	13.32	10.9
As per contract load per HP per Day consumption	4.15	4.82	5.42	4.745	3.77	4.58
As per contract load per HP per year consumption	1515.22	1759.08	1978.92	1732.0	1375.60	1672.16 say 1672 KWH

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 Agricultural Consumption

Metered consumption	Units Billed	Contracted Load	Units/HP/Year
Year	MUs	HP	
FY 2006-07	722.57	948901	761.48
FY 2005-06	719.29	869794	826.96



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 unmetered agriculture consumers to keep their motors on for the entire duration of power supply. This leads to considerably more consumption in unmetered 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 828 cases of theft were recorded by the Discom in FY 2006-07 to this category, by far the highest among any motive power category of consumers.
3. Agriculture consumers who have fewer sources of water or limited irrigated land normally opt for metered tariff. They use power supply for a shorter time than the unmetered consumers.
4. In case of failure of well/Tube wells consumers switchover to metered options so that they have minimum financial burden and retain their connection as currently new agriculture connections are not given in the dark zone area and in non dark zone areas there are long waiting lists of agriculture applications.

It may also be noted that the actual consumption in unmetered 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 UPGVCL 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 connection.

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 the distribution transformers.

The progress on this is poor. Only 31475 transformers are metered out of 83359 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:

UGVCL is in the direction of providing meters at Distribution Transformer level on HT, GIDC, IND, URBAN & JGY feeders. Out of about 26172 numbers of Distribution Transformers, 25798 numbers have been provided with 3Ø meters. Category-wise progress as on 31.03.2008 is as under.

DTC metering status

SI.No	Category	No of feeders	No of Transformers	Meters Installed on Transformer Centre	Pending for installation
1	H.T	63	19	19	0
2	GIDC	30	936	917	19
3	IND	168	3756	3436	320
4	URBAN	162	6993	6968	25
5	JGY	514	14468	14458	10
	Total	937	26172	25798	374

Company has started to give Dummy code to the transformer centers and transformer code to the consumer connected on that particular transformer center. Computerized report is being generated showing transformer-wise units sent out & sold out so as to assess losses of transformer centre. From this data high loss pocket will be found out & vigorous actions will be taken. Details of feeder having more% T&D losses cumulative up to March-08 are as under.

High loss feeder assessment

Urban feeders		Ind Feeders		GIDC Feeders		Ag DOM feeders		JGY feeders	
Total feeders	Feeders above 30% loss	Total feeders	Feeders above 30% loss	Total feeders	Feeders above 30% loss	Total feeders	Feeders above 30% loss	Total feeders	Feeders above 30% loss
162	05	168	00	30	0	2002	553	514	193

Various steps like replacement of meters, checking of connections etc are taken on the above feeders to reduce the losses less than 30% in all category. UGVCL hopes that the number of feeders having more than 30% losses will be reduced in comparison to last year by end of March-09. Procedure for energy accounting will be completed in all respect.

Commission's comments:

Action taken is noted. Measures taken to reduce the losses based on energy audit and result thereon shall be reported to the Commission.

Directive-3: Distribution Loss

Compliance:

Distribution losses of Uttar Gujarat Vij Company Ltd of last three years are as under:



Distribution losses of UGVCL

Sr. No	Year	Losses approved by Commission	Losses Achievement by company	Losses Reduction
1	2005-06	24.94%	19.45%	5.5%
2	2006-07	19.45%	15.82%	3.63%
3	2007-08	16.95%	17.31%	-

It is established fact that looking to the consumer mix, UGVCL is a agriculture dominant company, and there is 58% consumption in AG sector while revenue realized is about 13% from the same. On implementation of JGY scheme and on increase in HP of pumpsets under VDS integrated efforts are made and UGVCL has reduced distribution losses considerably from 19.45% to 15.82% at the end of 2006-07. In UGVCL, about 73% AG consumers are unmetered and its sold out units are calculated at 1700 unit per year per HP as per GERC formula. During the financial year 2007-08 about 513 hours more power supply was given to the AG dominant feeders which has resulted in high input to the AG consumers and as sold out units are fixed the losses are increased from 14.43 to 19.94% during 2007-08.

Further UGVCL has planned to reduce distribution losses by 1% per year for coming three years by taking following steps.

Steps to reduce technical losses:

- Load balancing on transformers particularly on Jyotigram feeders.
- Replacement of deteriorated conductor with optimum size.
- Bifurcation of feeders having more than 8% V.R and/or more than 150 Amp. Loading.
- Proper maintenances i.e. removal of joints as far as possible and re jumpering etc.
- Installations of APFC panels.
- Installation of Amorphous Transformer.
- Lowering of LT/HT ratio-implementation of HVDS.

Steps to reduce commercial losses:-

- Feeder wise billing, billing by hand held instrument.
- Distribution transformer metering and its energy audit.
- Review of monthly computerized programme for zero consumption, lock bills, less consumptions.
- Replacement of all conventional three phase meters by static meters Replacement of single phase meters by high quality/static meters.
- Shifting of meters outside the premises with separate services particularly in Town area.
- Weekly reading of heavy consumption/seasonal consumers.
- Arranging awareness programme to participate the public in curbing the social evil.
- Mass drive checking programme are arranged during odd hours.
- Installation checking of C.T operated meters.
- Providing MMB & sealing of single phase consumers.

- Maximum nos of consumers are released under Govt. scheme like Zuppadpatti, SCP, Kutir Jyoti, RGGVY etc in villages to avoid the theft.
- Providing of insulated/Arial bunch conductor in theft prone area.

Bronze shield was awarded by The Prime Minister for Meritorious Performance during year 2005-06 on 21/03/07 at New Delhi. First PUBLIC Sector Company to have Meritorious Performance award. Especially in T&D losses Parameter Uttar Gujarat Vij Company Ltd has got 40.53 Marks out of 50 marks with First Rank.

Commission's comments:

Action taken in reducing distribution losses are appreciated. Efforts shall continue to reduce the losses further.

Directive-4: Jyotigram Yojana

Compliance:

Uttar Gujarat Vij Company Ltd has covered 4618 towns, villages & petaparas under Jyoti Gram Yojana. Further 1164 Nos Special Designed Transformers installed for single phase power supply to Agriculture dominated feeders for scattered farm houses under JGY (GOG) scheme upto March-08 out of 2002. To address the issue of high level losses of Jyotigram feeders, we have initiated action as narrated under Directive 3. Stringent vigilance activity is also planned out for curbing the energy leakage. A feeder Manager is appointed for reduction of the feeder losses. Feeder Manager is especially taking action to reduce technical losses and commercial losses and bring awareness in public by frequent visit to the villages. With our concentrated efforts the losses under JGY category has reduced below the level of 30% at the end of FY 2007-08. Progress at a glance is as under:

Losses in JGY feeders

2005-06		2006-07		2007-08	
Total Nos of JGY Fdrs	% Losses	Total Nos of JGY Fdrs	% Losses	Total Nos of JGY Fdrs	% Losses
400	37.5%	466	30.80%	514	29.67%

Commission's comments:

Action taken is noted. Loses are high and appears to be mostly commercial losses. Efforts should be made to reduce them.

Directive-5: Effective metering, billing and revenue realization

Compliance:

Company has replaced 162428 nos of single phase meters and 18684 nos. of three Phase meters during the FY 2007-08. All three phase connections are to be provided with static meters. Further Uttar Gujarat Vij Company Ltd has planned to replace the remaining old meters by quality meters and purchase hand held equipment & provide to remaining sub divisions in a phased manner for implementing for spot billing. Bill collection through drop box has already started and currency counting machines are provided at sub division level where revenue is more than 1 crore. Facility for payment at circle Headquarters has been introduced by the company for HT consumers. A bill collection from



9:00 AM to 5:00 PM even on holiday is started. Collection through local post offices and under e-Gram Yojana collection facility in village itself has started. Progresses of providing quality-static meters are as under.

Metering Status

Sr. No	Meters	2006-07	2007-08
1	Single Phase	165942	162428
2	Three Phase	14055	18684

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 Services

Compliance:

Consumers Grievance Redressal Forum: A consumer Grievances Redressal Forum is functioning under Uttar Gujarat Vij Company Ltd. Every month cases are reviewed, total 63 cases have come before the Forum and they were reviewed and orders passed during the FY 2007-08. Progress of this matter is given to Commission through every quarterly SOP reports.

Customer care center: Progress of establishing customer care center are as under.

Customer Care Centers in UGVCL

In Operation				On Hand		Tribal area on Hand	
2006-07		2007-08		2008-09		2008-09	
1	Mehsana	1	Vijapur	1	Kheralu	1	Danta
2	Patan	2	Visnagar	2	Sathamba	2	Ambaji
3	Kadi	3	Idar	3	Chandkheda	3	Vijaynagar
4	Deesa	4	Modasa	4	Bopal	4	Bhiloda
5	Sidhpur	5	Gandhinagar			5	Meghraj
6	Unja	6	Sabarmati				
7	Planpur	7	Dhandhuka				
8	Himatnagar	8	Kalol				
9	Adlaj	9	Vadnagar				
10	Bavla	10	Talod				
		11	Khedbhrama				
		12	Radhanpur				
		13	Iqbalgadh				

For better services to the consumers directives given in the standard of performances are fulfilled. Prepaid meters are provided. Special training is imparted to staff for keeping cordial consumer relation. Helper meetings are arranged at regular interval and guided for better services to the consumers. Moreover field line staff are provided CUG mobile phone so that consumer complaints can be resolved in minimum time. Classification of complaints and complaints redressed during the quarter is submitted in the SOP Report regularly.



The first **accredited Meter Testing Laboratory** of UGVCL by National Accreditation Board for Testing and Calibration Laboratories (NABL) with an accuracy of 0.05 is functioning at Sabarmati. Uttar Gujarat Vij Company Ltd Corporate office Mehsana, Sabarmati circle office and Mehsana circle office have obtained ISO 9001 Certification. Company is going to install 7 nos of any time payment (ATP) machines at urban areas so that consumer can make the payments of his bills at any time. Directive of Commission is noted for further improvement of Consumer Services.

Commission's comments:

Action taken is noted. A survey on consumers satisfaction on the service provided shall be got conducted and the finding reported to be Commission.

Directive-7: Cent percent metering

Compliance:

UGVCL has total 213559 numbers of Agricultural consumers out of which 155966 numbers of consumers are unmetered. No Agricultural connection is released without meter. Last year i.e. FY 2007-08 company has released 3211 nos. of agricultural connections with meters. UGVCL is in the direction to provide meters to presently at unmetered consumer premises. However, large amount of capital work as well as resistance from the consumers has slowed down our progress of providing the meters on Agriculture consumers. Company tries to convince the farmers regarding advantage of having meters. Meantime, meters are being installed on Agricultural transformer centers for the study of actual Agriculture consumption of unmetered category.

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

Compliance:

Business plan for the next five years (2008-09 to 2012-13) is under active consideration. The consultancy for preparing the Business Plan is going to be fixed within a short time. Business plan for 5 years is required to be prepared and completed by the consultant within 3 to 4 months from the date of assignment given. Hence, on receipt of plan, same will be submitted to the Commission.

Commission's comments:

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

Directive-9: Introduction of MYT

Compliance:

This directive is noted by the company. New ARR & Tariff is submitted under MYT frame work for the year 2008-2011.

Commission's comments:

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



Directive-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. UGVCL may have to continue this exercise unless 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 Failures:

UGVCL has planned to reduce its Distribution Transformer Failure rate by 1% during the FY 2008-09 by adopting stringent maintenance, review of loading on existing Distribution Transformers Centres, under System Improvement scheme and also clearing expeditiously applications received for Agriculture additional load from time to time.

Year wise % Transformer Failure

Company	2003-04	2004-05	2005-06	2006-07	2007-08
UGVCL	17.80%	16.88%	15.22%	14.75%	12.62%

Transformer Failure rate is in a decreasing trend.

Commission comments:

The achievement in reducing the transformer failures is noted. The failures are to be further reduced to single digit.

FRESH DIRECTIVES

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

UGVCL is at present purchasing about 302 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
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



GSECL PLANTS	Capacity (MW)	Fixed Cost (Rs. Lakhs)	Energy Purchase (MU)	Variable Cost (Rs. KWh)
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.

$$FOG = \sum_{n=1}^k [(HB \times OGD_A) \times (Fuel CA - Fuel CB)]$$

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:

$$FPPPA = [(PPCA - PPCB)] / [1-LA]$$

Where,

$PPCA$	Is the average power purchase cost per unit of delivered energy, computed based on the operational parameters approved by the Commission or principles laid down in the power purchase agreements in Rs. / KWh for all the generating stations who have supplied power in the given quarter, calculated as total power purchase cost billed in Rs. Million divided by the total quantum of power purchase in million units made during the quarter.
$PPCB$	Is the 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.



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	Ps / kWh	13.48
7	Wheeling charges at 400 V (LT)	Ps/kWh	44.93

Plus

Point of injection	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.

8.4 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

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]
<i>EHT Industrial</i>	<i>Rs.4.73/kWh</i>	<i>4.09%#</i>	<i>Rs.0.13/kWh \$</i>	<i>3.93</i>	0.51
<i>Railway traction</i>	<i>Rs.5.18/kWh</i>	<i>4.09%#</i>	<i>Rs.0.13/kWh \$</i>	<i>3.93</i>	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 UGVCL for structural changes in tariff categories and increase in tariff

UGVCL 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 UGVCL 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 UGVCL.

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 UGVCL and decision of the Commission

UGVCL 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.289.98 crore for the year 2008-09, Rs.488.02 crore for the year 2009-10 and Rs.585.89 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 UGVCL for the control period, the Commission has arrived at a revenue gap of Rs.219.09 crore during 2008-09, Rs. 405.45 crore during 2009-10 and Rs.500.72 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 gap 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 17% of the gap on an annual basis, and 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 17% 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 UGVCL for approval of Aggregate Revenue Requirement (ARR) and determination of retail supply tariffs, the Commission approves the Aggregate Revenue Requirement for Uttar Gujarat Vij Company Limited (UGVCL) 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	298069	331784	359898
2	O & M Expenses	31766	32197	31480
3	Depreciation	8123	9356	10604
4	Interest on Loans & Finance Charges	10987	11134	11295
5	Interest on Working Capital	3435	3777	4033
6	Other Debits	332	348	366
7	Extraordinary items	33	33	33
8	Provision for bad debts	293	326	357
9	Less : Interest & Expenses Capitalised	5384	5707	6049
10	Sub Total	347654	383248	412017
11	Return on equity	8215	9043	9905
12	Provision for Tax	118	118	111
13	Total Expenditure	355987	392409	422033
14	Less : non tariff income	4045	4288	4545
15	Aggregate Revenue Requirement	351942	388121	417488

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/-

DR. P K MISHRA
Chairman

Sd/-

K P GUPTA
Member

Sd/-

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 RATE LFD-III

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 RATE-LTP

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 (KVARH) 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
---	--------------------

NOTE:

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 **RATE LTP-III**

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 Fixed charges:

	For billing demand upto the contract demand	
(a)	(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 Energy charges:

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 Municipalities / 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 **RATE-AG (AGRICULTURAL)**

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

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

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 **RATE SL (STREET LIGHTS)**

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 **RATE TMP (TEMPORARY):**

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

NOTE: 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 **DELAYED PAYMENT CHARGES FOR LT CONSUMERS:**

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 Research 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 Corporations, 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 Corporations, 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
- 12.7 Meter charges
- 12.8 Electricity Duty and tax on sale of electricity
- 12.9 Maximum demand and its measurement
- 12.10 Contract demand
- 12.11 Rebate for supply at EHV
- 12.12 Delayed payment charges

} Same
as per
HTP-I
Tariff

13.0 RATE HTP-II(B):

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 Demand Charges:

(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 Energy Charges:

For all units consumed during the month	370 Paise/Unit
---	----------------

PLUS

13.3 Time of Use Charges:

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
- 13.7 Meter Charges
- 13.8 Electricity Duty and Tax on Sale of Electricity
- 13.9 Maximum Demand and its Measurement
- 13.10 Contract Demand
- 13.11 Rebate for supply at EHV
- 13.12 Delayed Payment Charges

} Same as
per HTP-I
Tariff

14.0 RATE HTP-III:

This tariff shall be applicable to a consumer taking supply of electricity at high voltage, contracting for not less than 100 kVA for temporary period. A consumer not taking supply on regular basis under a proper agreement shall be deemed to be taking supply for temporary period.



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

16.10 Rebate for supply at EHV

As per HTP-I Tariff

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 | } | As per HTP-I Tariff |
| 17.4 | Meter charge | | |
| 17.5 | Billing Demand | | |
| 17.6 | Contract demand | | |
| 17.7 | Minimum bill | | |
| 17.8 | Maximum demand | | |
| 17.9 | Delayed Payment Charges | | |
| 17.10 | Rebate for supply at EHV | | |

Government Central Press, Gandhinagar.

