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GUJARAT ELECTRICITY REGULATORY COMMISSION

(GERC)

AHMEDABAD

TARIFF ORDER
FOR
Torrent Power Limited (TPL)

Case No. 939 of 2008

17 January 2009

C O N T E N T S

List of Tables

Annexure

BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION AT AHMEDABAD

Case No.939 / 2008

Date of Order: 17.01.2009

CORAM

Shri K P Gupta, Member

Dr. Man Mohan, Member

ORDER

1. BACKGROUND AND BRIEF HISTORY

1.1 Background

This order relates to the petition filed by Torrent Power Limited (herein after referred to as TPL or Petitioner) on 8th May 2008 for approval of Aggregate Revenue Requirement and the proposed generation, wheeling and retail supply tariffs for the control period (FY 2008-09 to 2010-11) using Multi Year Tariff principles specified by the Gujarat Electricity Regulatory Commission Multi Year Tariff Framework Regulations notified on 20th December 2007.

1.2 Torrent Power Limited (TPL)

Torrent Power Limited (TPL), a company incorporated under Companies Act, 1956 is carrying on the business of generation and distribution of electricity in the cities of Ahmedabad, Gandhinagar and Surat. TPL had assumed the business consequent to the amalgamation of Torrent Power AEC Limited (TPAL), Torrent Power Surat Limited (TPSL) and Torrent Power Generation Limited (TPGL) with Torrent Power Limited.

TPAL was a licensee under the provisions of Indian Electricity Act 1910 and TPSL was a sanction holder (in terms of the sanction granted by the Government of Gujarat) under the provisions of the Indian Electricity Act 1910, Torrent Power Limited is a deemed licensee for distribution of electricity under Section 19 (1) (d) read with Section (19) (1) (i) of Gujarat Electricity Industry (Reorganization and Regularization) Act 2003 and Under Section 14 of Electricity Act 2003. The Commission had granted approval to the transfer / assignment of licenses granted to Torrent Power AEC Limited and Torrent Power SEC Limited so as to incorporate the name of TPL as licensee in place of TPAL and TPSL in the respective licenses.

The approval of the Commission was subject to the order and directions of the Hon'ble High Court of Gujarat on the scheme of amalgamation / merger of TPAL, TPSL, TPGL and

TPL. The scheme of arrangement including amalgamation has been approved by the Hon'ble High Court of Gujarat vide its order dated 11th September 2006.

1.3 Commission's Order for FY 2007-08

Torrent Power Limited filed its ARR petition for the FY 2007-08 on 6th February 2007 in accordance with the Regulations notified by GERC on Terms and Conditions of Tariff. The Commission, in exercise of the powers vested in it Under Sections 61 and 62 of the Electricity Act 2003 and all other powers enabling it in this behalf and after taking into consideration the submissions made by TPL, the objections by various stakeholders, response of TPL, issues raised during the public hearing and all other relevant material, issued the order for the year 2007-08 on 31st July 2007.

1.4 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 Multi Year Tariff (MYT) Framework for the period FY 2008-09 to 2010-11 after going through consultation and public hearing process.

1.5 MYT Tariff Petition for control period FY 2008-09 to 2010-11

TPL 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 8th May 2008.

1.6 Admission of petition and public hearing process

The Commission conducted a preliminary analysis of the petition submitted by TPL and admitted the ARR Petition of TPL for the control period (Case No 939 of 2008) on 29th May 2008.

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

The Public Notice was published in the following newspapers on 31st May 2008 inviting objections / suggestions from its stakeholders on the ARR Petition filed by it.

1. Indian Express – Ahmedabad and Vadodara Edition
2. Sandesh – Ahmedabad Edition
3. Gujarat Samachar – Ahmedabad Edition
4. Danik Bhaskar – Ahmedabad Edition
5. Gujarat Mitra – Surat Edition
6. Sambhav Metro – Ahmedabad Edition

The interested parties/stakeholders were asked to file their objections and suggestions on the petition on or before 1st July 2008. Since a number of representations were received from stakeholders for extending the time for filing their objections / suggestions, a further notice was published in the same newspapers (in which original notice was published) on

1st July 2008 extending time to the public to file the objections / suggestions upto 14th July 2008.

TPL/Commission received objections/suggestions from 42 respondents, some of the objections / suggestions received after the last date have also been accepted.

The Commission has considered the objections received and sent communication to the objectors inviting them to take part in the public hearing process for presenting their views on the petition before the Commission.

Meanwhile Consumer Protection Council, Ahmedabad filed a petition before the Hon'ble High Court of Gujarat contending that on account of the vacancy in the office of the Chairperson, the proposal of TPL and the objections raised by the petitioner and others will be considered by the Commission comprising of only two members without the Chairperson. It will be contrary to the public interest to take a decision which will have far reaching effect on the consumers in the state. The petitioner therefore submitted to the Hon'ble High Court that till the Chairperson of the State Commission is appointed, the proposal made by TPL for approving the increase in the tariff rate should not be considered by the Commission.

After hearing the petitioner and the respondents, Hon'ble High Court passed the following order on 31/07/2008.

i) The State Government shall appoint Chairperson of the Gujarat Electricity Regulatory Commission within five weeks from today and

ii) The State Commission shall consider and decide the proposal of TPL, within six weeks from the date of appointment of the Chairperson.

The Hon'ble High Court did not grant any stay against the scheduled hearing of the objections by the State Commission, but directed that the final decision on the proposal of TPL shall be taken by the Commission after appointment of the Chairperson.

On a petition filed by the Commission seeking clarification of the order dated 31/07/2008 (of the Hon'ble High Court), the Hon'ble High Court, after hearing the petitioner and others passed an order on 05/08/2008 modifying its earlier order as under:

> *"while the direction requiring the State Government to appoint Chairperson of the State Electricity Regulatory Commission within five weeks from 31/07/2008 (i.e by 07/09/2008) shall continue to operate, the State Commission shall consider and decide the proposal of respondent No. 3, TPL Company expeditiously".*
>
> *It will be open to the present Members of the Commission to proceed with the hearing of the objections against the proposal of respondent No. 3 and pass appropriate orders on the said proposal".*

The orders of the Hon'ble High Court are given in Annexure –1.3.

In view of the above matter in the high court, the public hearing (which was originally scheduled to be held on 5th, 6th, August 2008 and was postponed) was held on 11th, 12th, 13th and on 26th, 27th, 28th, 29th August and on 6th September 2008 in the Court Hall of the Commission's office in Ahmedabad.

The issues and concerns voiced by various stakeholders have been carefully examined by the Commission.

The details of the organizations and individuals who filed their objections / suggestions on the petition are given in Annexure-1.1. The details of objectors who participated in the public hearing are given in Annexure-1.2.

The Commission has thus ensured that due process of law, contemplated to ensure transparency and public participation has been followed and adequate opportunity has been given to all stakeholders concerned to file their say in the matter.

Submission of Area-wise data for Distribution Business

Some of the stakeholders, while filing their objections on the MYT Petition for approval of ARR and Tariff of TPL for the years 2008-09 to 2010-11, raised the issue of filing separate ARRs area wise contending that TPL holds separate licenses for Ahemdabad & Gandhinagar and Surat areas. The issue was reiterated during public hearing.

Having considered the objections raised and the fact that TPL holds separate distribution licenses for Ahmedabad and Gandhinagar and Surat areas, the Commission, vide its letter GERC / SEC/ 2008/2197 dated 18th September 2008, directed TPL to file area wise data for its distribution business for determination of ARR and retail supply tariffs for Ahmedabad, Gandhinagar and Surat areas. The area wise data was filed by TPL vide its letter dated 23rd September 2008.

1.7 Contents of the Order

The order is arranged into eight chapters as under:

1. The first chapter provides a historical background regarding the petitioner, MYT, petition and details of the tariff setting process.
2. The second chapter provides detailed account of public hearing process, including the objections raised by various stakeholders, TPL responses and the Commission's views on the responses.
3. The third chapter details the process of truing up / review of the year 2007-08.
4. The fourth chapter analyses the Aggregate Revenue Requirement for generation, wheeling and retail supply business for the control period 2008-09 to 2010-11.
5. The fifth chapter deals with tariff philosophy adopted by the Commission and category wise tariffs applicable for 2008-09
6. The sixth chapter deals with compliance of directives issued earlier and fresh directives issued in this Order.
7. The seventh chapter deals with Fuel Price and Power Purchase Cost Adjustment and
8. The eighth chapter deals with Wheeling Charges and Cross Subsidy Surcharge.

Annexure 1.1

List of Organizations and Individuals who filed objections/suggestions

1.	Consumer Education and Research Society, Ahmedabad
2.	Gujarat Chamber of Commerce and Industry, Ahmedabad
3.	South Gujarat Chamber of Commerce and Industry, Surat
4.	Shri Mahadeo Ishvarlal Desai, Surat
5.	Janjagruti Abhiyan Sewa Trust, Ahmedabad
6.	Consumer Protection and Action Committee, Ahmedabad
7.	Consumer Protection Council, Ahmedabad
8.	Ahmedabad Textile Mills Association, Ahmedabad
9.	Domestic/Construction workers union, Gujarat State, Ahmedabad
10.	Human Rights Committee, GPCC, Ahmedabad (2 submissions)
11.	Gujarat Auto Rickshaw Drivers Action Committee, Ahmedabad
12.	Gujarat Pradesh Congress Committee, Ahmedabad
13.	Communist Party of India, Ahmedabad
14.	Shri Mahesh Kumar Bhikhubhai Desai, Surat
15.	Adani Energy Ltd, Ahmedabad
16.	Grahak Suraksha ane Pagla Samiti, Ahmedabad
17.	Shri Vikrambhai Keshavlal Chauhan, Ahmedabad
18.	Shri Sunil Balakrishna Oza, Ahmedabad
19.	Katargam Industrial Estate Shade Holders Asoc, Surat
20.	Ved Road Art Silk Small Scale Co. Op Federation Ltd. Surat
21.	JB Diamond Association, Surat
22.	Surat Diamond Association, Surat
23.	Shri Jigneshkumar R. Virani, Surat
24.	Shri Bipinchandra I Gonawala, Surat
25.	Shri Arvindbhai Shantilal Rana, Surat
26.	Shri Fakirbhai Chhotubhai Chauhan, Surat.
27.	Surat Municipal Corporation, Surat
28.	Surat Grey Kapad Utpadak Sangh
29.	Shri Jitendrakumar S Danecha, Surat
30.	Shri Kantilal Uttamram Dakoriya, Surat
31.	Shri Bharabahi Somabhai Umregar, Surat
32.	Shri Maheshbahi Sanmulal Chokshi, Surat
33.	Shri Rashi D Chunawala, Surat
34.	Shri Tulsibhai Bhimjibhai Goyani, Surat
35.	Shri Mahesh K Desai, Surat
36.	Shri Jagdishbhai Keshubhai Avaiya, Surat
37.	Shri Rajeshkumar Jayantilal Purohit, Surat
38.	Shri Balakrishna C Ghariya, Surat
39.	Shri Ganeshbhai C Ghariya, Surat
40.	Surat Citizen Council Trust, Surat
41.	Ahmedabad Municipal Corporation, Ahmedabad
42.	Dalit Sena, Ahmedabad

Annexure 1.2

List of participants in Public Hearing

1.	Consumer Education and Research Society, Ahmedabad
2.	Gujarat Chamber of Commerce and Industry, Ahmedabad
3.	South Gujarat Chamber of Commerce and Industry, Surat
4.	Shri Mahadeo Ishvarlal Desai, Surat
5.	Janjagruti Abhiyan Sewa Trust, Ahmedabad
6.	Consumer Protection Council, Ahmedabad
7.	Ahmedabad Textile Mills Association, Ahmedabad
8.	Domestic/Construction workers union, Gujarat State, Ahmedabad
9.	Human Rights Committee, GPCC, Ahmedabad (2 submissions)
10.	Gujarat Auto Rickshaw Drivers Action Committee, Ahmedabad
11.	Gujarat Pradesh Congress Committee, Ahmedabad
12.	Shri Mahesh Kumar Bhikhubhai Desai, Surat
13.	Adani Energy Ltd, Ahmedabad
14.	Grahak Suraksha ane Pagla Samiti, Ahmedabad
15.	Shri Vikrambhai Keshavlal Chauhan, Ahmedabad
16.	Shri Sunil Balakrishna Oza, Ahmedabad
17.	Katargam Industrial Estate Shade Holders Asoc, Surat
18.	Ved Road Art Silk Small Scale Co. Op Federation Ltd. Surat
19.	JB Diamond Association, Surat
20.	Surat Diamond Association, Surat
21.	Shri Jigneshkumar R. Virani, Surat
22.	Shri Bipinchandra I Gonawala, Surat
23.	Shri Arvindbhai Shantilal Rana, Surat
24.	Shri Fakirbhai Chhotubhai Chauhan, Surat.
25.	Surat Municipal Corporation, Surat
26.	Surat Grey Kapad Utpadak Sangh
27.	Shri Jitendrakumar S Danecha, Surat
28.	Shri Kantilal Uttamram Dakoriya, Surat
29.	Shri Maheshbahi Sanmulal Chokshi, Surat
30.	Shri Tulsibhai Bhimjibhai Goyani, Surat
31.	Shri Mahesh K Desai, Surat
32.	Shri Jagdishbhai Keshubhai Avaiya, Surat
33.	Shri Rajeshkumar Jayantilal Purohit, Surat
34.	Shri Balakrishna C Ghariya, Surat
35.	Shri Ganeshbhai C Ghariya, Surat
36.	Surat Citizen Council Trust, Surat
37.	Ahmedabad Municipal Corporation, Ahmedabad
38.	Dalit Sena, Ahmedabad

Annexure 1.3

Copy of the Orders of the Honourable High Court of Gujarat

SCA /9283 /2008 7/9 ORDER

IN THE HIGH COURT OF GUJARAT AT AHMEDABAD

SPECIAL CIVIL APPLICATION NO. 9283 of 2008

CONSUMER PROTECTION COUNCIL – Petitioner(s)

Versus

GUJARAT ELECTRICITY REGULATORY COMMISSSION & 2 – Respondent (s)

Appearance:

MR NIRUPAM NANVATY, SR. COUNSEL with MR SUDHIR M MEHTA for Petitioner (s)

MR BD KARIA FOR Respondent (s): 1,

MR KAMAL B. TRIVEDI, LD. ADVOCATE GENERAL with MS. SANGEETA VISHEN, ASSISTANT GOVERNMENT PLEADER for Respondent (s): 2,

DS AFF. NOT FILED (N) for Respondent (s): 2,

MR MIHIR THAKORE, SR. COUNSEL with MR KB PUJARA for Respondent (s): 3,

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CORAM:

HONOURABLE THE ACTING CHIEF JUSTICE MR. M.S. SHAH

and

HONOURABLE MR. JUSTICE D.H WAGHELA

Date: 31/07/2008

ORAL ORDER

(Per: HONOURABLE THE ACTING CHIEF JUSTICE MR. M.S. SHAH)

Rule. Mr. B.D. Karia, learned advocate waives service of rule for respondent No.1. Ms. Sangeeta Vishen, learned Assistant Government Pleader, waives service of rule for respondent No.2, and Mr. K.B.Pujara, learned Advocate waives service of rule for respondent No.3. at the request of the learned counsel for the parties, we have taken up the petition for final disposal.

2. In this petition under Article 226 of the Constitution of India, the Consumer Protection Council has prayed for a writ of mandamus, directing the State Government to constitute a Selection Committee in terms of Section 85 of the Electricity Act, 2003 (and the Act for brevity), for selecting Chairperson of the Gujarat Electricity Regulatory Commission. The petitioner has also prayed that the Selection Committee be required to select a Chairperson, who, as far as possible, be a retired Judge of this Court. It is further prayed that till the State Commission is properly constituted by appointment of the Chairperson, the State Commission be restrained from hearing and deciding the application of respondent No.3 for approval of increase in tariff rates.

3. The petitioner is a Non Governmental Organization looking after the interests of consumers in the State. Respondent No.3 has made an application to the State Commission for approving the proposed increase in the tariff rates for supply and distribution of electricity to the consumers. The application was received by the State Commission on 23.5.2008. Thereafter, State Commission has invited objections as to why the proposed increase in the tariff rate should not be granted. A number of persons including the petitioner have lodged their objections, and the objections are scheduled to be heard by the State Commission on 5th, 6th, 11th, 12th, and 13th August, 2008.

4. The petitioner's grievance is that in spite of mandatory provisions of Sections 82,84 and 85 of the Act, prescribing that the selection of the Chairperson and members of the State Commission shall be made by the State Government on the recommendation of a Selection Committee and in spite of the office of the Chairperson having fallen vacant on 6th January, 2008, no appointment is made to the said Office. It is submitted that on account of the vacancy in the office of the Chairperson, the proposal of respondent No.3 and the objections raised by the petitioner and others will be considered by the Commission comprising only two members without the Chairperson, and it will be contrary to the public interest to allow a body of only two members without the Chairperson, to take a decision which will have far reaching effect on the consumers in the State. it is contended that if the proposal of respondent No.3 company is accepted by the Commission, there will be heavy burden on the consumers of electricity in the state, to the tune of Rs. 1150 crores, and the State Government owes it to the consumers at large to see that the State Commission is properly constituted with the Chairperson appointed within the time limit.

It is also contended that the thrust of the provisions of the Act is to see that a retired Judge of this Court should be appointed as the Chairperson of the State Commission and thereafter, relevant provisions dispense with the appointment of the Selection Committee, where a Sitting or a Retired Judge of the High Court is to be appointed as the Chairperson of the State Commission.

5. Mr. Nirupam Nanavaty, learned Senior Counsel appearing with Mr. Sudhir Mehta for the petitioner has invited our attention to the provisions fo Section 85 of the Electricity Act, 2003 and submitted that the tenure of Mr. G. Subba Rao as the Chairperson of the Commission was going to come to an end on 6th January,2008, on attaining the age of 65 years and therefore, the State Commission was required to constitute a Selection Committee under sub – section (1) of Section 85 of the Act, by 5th July, 2007. No such Selection Committee was constituted till 29th March,2008. It is also contended that the constitution of the Selection Committee even on 29th March2008 is not done in accordance with law, as only a person who has been a Judge of the High Court can be appointed as the Chairperson of the Selection Committee and not a Sitting Judge of the High

Court. Moreover, the Selection Committee constituted on 29th March, 2008 has also not finalized the selection of the Chairperson within three months of the date on which the Committee was constituted and reference was made to it. It is therefore, vehemently submitted that either the State Government should appoint a sitting or a retired Judge of this Court as the Chairperson of the State Commission, or the State Government should reconstitute the Selection Committee headed by a retired Judge of this Court. It is also submitted that till the Chairperson of the State Commission is appointed, the proposal made by respondent No.3 for approving the increase in the tariff rates should not be permitted to be considered by the State Commission.

Reliance is placed on the decisions of the Apex Court in the workmen of M/s. Firestone Tyre and Rubber Co. of India Pvt. Ltd. Vs. the Management and ors. – (1973) 1 SCC 813 para 58, Ashok Tanwar and anr. Vs. State of H.P and ors. – (2005) 2 SCC 104 para 15, and of the Allahabad High Court in Dr. (Mrs) Shabbir Fatima and ors. Vs. The Chancellor, University of Allahabad – AIR 1966 Allahabad 45, in support of the contention that the expression and a person who has been a Judge of the High Court and can only mean a former Judge of the High Court.

6. On the other hand, Mr. Kamal B. Trivedi, learned Advocate General appearing with learned Assistant Government Pleader Ms. Sangeeta Vishen, has submitted that the Selection Committee has already been constituted on 29th March,2008 and the State Government will appoint the Chairperson of the State Commission by 30th September,2008. It is, however, submitted that the vacancy in the office of the Chairperson does not disable the State Commission from considering the proposal of respondent No.3 for approval of the proposed increase in the tariff rates. Strong reliance is placed on Section 93 of the Act and Regulation 89 of the Gujarat Electricity Regulatory Commission Conduct by Business Regulations, 1999 (as published by the Authority by Notification No. 02 of 2004) providing that no act or proceeding of the Commission shall be questioned or shall be invalidated merely on the ground of existence of any vacancy or defect in the constitution of the Commission. Reliance is also placed on Regulation No.16. The said Regulation provides that Quorum for the proceedings before the Commission shall be two. On the basis thereof, it is submitted that the Commission presently having two members can certainly proceed to perform the functions of the Commission.

7. Mr. Mihir Thakore, learned Senior Counsel with Mr. K.B. Pujara, learned Advocate for respondent No.3 has supported the submission made by learned Advocate General. Mr. Thakore has further submitted that the proposal made by respondent No.3 for permission to increase the tariff rate was received by the State Commission on 23rd May, 2008 and the said proposal is required to be considered and decided by 22nd September, 2008. He has drawn our attention to sub- section (3) of Section 64 of the Electricity Act, 2003, which provides that an application for determination of tariff under Section 62 made by a generating company or licensee shall be considered by the appropriate Commission, within 120 days from the receipt of the application and after considering all suggestions and objections received from the public. Thus, sub –section (3) of Section 64 of the Act provides in mandatory terms that the Commission shall, within 120 days of the receipt of the application, issue a tariff order accepting the application or reject the application for reasons to be recorded in writing, after considering all suggestions and objections received from the public. It is also submitted that after hearing the objections from a large number of persons between 5th and 13th August, 2008, the State Commission will also have to give a reasonable opportunity of being heard to respondent No.3 and thereafter, take a final decision on the proposal by 22nd September, 2008. It is, therefore, submitted that the decision on the proposal of respondent No.3 may not be permitted to be delayed on account of any vacancy in the office of

the Chairperson in the State Commission. Mr. Thakore has also relied upon the aforesaid statutory provisions to contend that any vacancy in the Office of the Chairperson cannot invalidate the proceedings of the State Commission.

8. Having heard learned Counsel for the parties, we find considerable substance in the submission made by the learned counsel for the petitioner that sub-section (2) of Section 85 of the Act requires the State Government to constitute the Selection Committee under sub –section (1) and make a reference to the same for filling up the vacancy six months before superannuation or end of the tenure of the Chairperson, or the member of the State Commission, as the case may be. It is only where the vacancy arises by reason of death, resignation or removal of Chairperson or member that the Legislature has provided for shorter time limit of one month after the occurrence of the vacancy, but in case of superannuation or end of the tenure of the Chairperson by efflux of time, it is known well in advance and therefore, the Legislature required the State Government to initiate the process six months in advance.

9. We also find considerable substance in the grievance being made by the learned counsel for the petitioner that the Selection Committee is required to finalize the selection of the Chairperson or Member of the State Commission, within 3 months from the date on which reference is made to it. What is required to be noted is that the Selection Committee has to recommend a panel of two names, and therefore, selection made by the Selection Committee is not going to be the end of the process. The State Government would thereafter, take some time to select one of the names recommended by the Selection Committee. Having examined the scheme of the Act, the object of establishing State Commission and the powers and the duties of the State Commission, we are of the opinion that the State Government is required to initiate the process for filling up the vacancy six months prior to the superannuation or end of the tenure of the Chairperson or the Member, as the case may be.

10. It is true that Section 93 of the Act and Regulation 89 provide that no act or proceedings of the Commission shall be questioned or shall be invalidated merely on the ground of existence of any vacancy in the constitution of the Commission. However, these provisions are only meant to be a shield against a challenge leveled after the decision is taken. These provisions cannot justify the inaction on the part of the State Government in not filling-in the vacancies in the Office of the Chairperson or Member, as the case may be.

11. In view of the above discussion, we are of the view that the State Government will have to appoint the Chairperson of the State Commission with utmost expedition, and the State Government shall do so within five weeks from today i.e. by 7th September, 2008.

12. The next question is whether the State Government is bound to appoint a sitting or a former Judge of this Court as Chairperson. Having carefully examined the provisions of the Act, particularly Sections 82 to 85, we find substance in the submission made by the learned Advocate General that it is not mandatory for the State Government to appoint either a sitting judge or a former judge of this Court as the Chairperson of the State Commission. The non-obstante Clause in sub- section (2) of Section 84 of the Act, and even the proviso to sub-section (1) of Section 85 of the Act merely enable the State Government to appoint a sitting or a retired Judge of the High Court as the Chairperson of the State Commission and in such a contingency, the procedure of constituting a Selection Committee headed by a former Judge of the High Court and the Selection Committee recommending a panel of two names, is not required to be followed. That does not,

however, mean that the State Government is obliged to appoint only a sitting or a retired Judge of the High Court as the Chairperson of the State Commission.

13. We may now consider the submission made on behalf of the petitioner that the constitution of the Selection Committee is invalid because the Selection Committee should only be headed by a former Judge of the High Court, and not by a sitting Judge of the High Court, as is done by the Government by Notification dated 29th March, 2008. While interpreting the expression 'a person who has been Judge of the High Court' in Section 7 (3) (a) of the Industrial Disputes Act,1947 and Section 16 (1) (a) of the Consumer Protection Act, 1986, the Apex Court has held in workmen Vs. Firestone Tyre and Rubber and (1973) 1 SCC 813, (para 58) and in Ashok Tanwar and anr. Vs. State of H.P and ors. – (2005) 2 SCC 104, (paras 15,16 and 19), that the expression refers to a former Judge of the High Court. Considering the provisions of the Electricity Act also, it is clear that he Act has made a distinction between a sitting Judge and a former Judge of the High Court.

14. At this stage, the learned Advocate General submits that the State Government will appoint a Chairperson of the Gujarat State Electricity Regulatory Commission by 30th September, 2008, after obtaining recommendation from the Selection Committee constituted in accordance with the provisions of Section 85 (1) of the Act, or by appointing a sitting / former Judge of the High Court as the Chairperson.

15. Having regard to the submissions made by the learned counsel for respondent No.3, we find that proposal for approval of the increase in tariff rate is pending with the State Commission since 23rd May, 2008 and the delay in considering the proposal will only be prejudicial to respondent No.3. in the peculiar facts and circumstances of the case, particularly when the delay in appointment of the Chairperson of the State Commission occurred firstly on account of the delay in appointment of the Selection Committee, and also considering the fact that the selection Committee itself has not made any recommendations for the last four months, we direct that:

(i) the State Government shall appoint Chairperson of the Gujarat Electricity Regulatory Commission within five weeks from today, and

(ii) the State Commission shall consider and decide the proposal of respondent No.3 company, within six weeks from the date of appointment of the Chairperson.

16. We clarify that we are not granting any stay against the Scheduled hearing of the objections by the State Commission, because Regulation 89 provides that no act or proceedings of the Commission shall be invalidated merely on the ground of existence of any vacancy or defect in the constitution of the State Commission. Even then the proposal of respondent No.3 for increase in the tariff rate is going to have a far reaching effect on the consumers in the State and will impose additional burden on them running into hundreds of crores of rupees, and therefore, we direct that the final decision on the proposal shall be taken by the Commission after appointment of the Chairperson.

17. Rule is made absolute to the above extent.
Direct service is permitted.

(M.S.Shah, Actg. C.J.)

(D.H. Waghela,J.)
*/Mohandas

IN THE HIGH COURT OF GUJARAT AT AHMEDABAD

MISC.CIVIL APPLICATION – CLARIFICATION OF ORDER NO,2169 of 2008.

IN

SPECIAL CIVIL APPLICATION NO. 9283 of 2008

GUJARAT ELECTRICITY REGULATORY COMMISSION – Applicant (s)

Versus

STATE OF GUJARAT & 2 – Opponent(s)

Appearance:

MR BD KARIA for Applicant (s) : 1,

MR KB TRIVEDI ADVOCATE GENERAL with MS SANGEETA

VISHEN AGP for Opponent (s) : 1,

MR MIHIR THAKORE with MR KB PUJARA for Opponent (s) : 2,

MR ND NANVATI with MR SUDHIR M MEHTA for Opponent (s) : 3,

CORAM:

HONOURABLE THE ACTING CHIEF JUSICE MR. M.S.SHAH

And

HONOURABLE MR.JUSTICE D.H. WAGHELA

Date : 05/08/2008

ORAL ORDER

(Per : HONOURABLE THE ACTING CHIEF JUSTICE MR. M.S. SHAH)

This is an application for modification of our order dated 31.7.2008 by which we had given the following directions to the respondent # authorities:-

15. Having regard to the submission made by the learned counsel for respondent No.3, we find that proposal for approval of the increase in tariff rate is pending with the State Commission since 23rd May, 2008 and the delay in considering the proposal will only be prejudicial to respondent No.3. In the peculiar facts and circumstances of the case, particularly when the delay in appointment of the Chairperson of the State Commission occurred firstly on account of the delay in appointment of the Selection Committee, and also considering the fact that the selection Committee itself has not made any recommendations for the last four months, we direct that:

(i) the State Government shall appoint Chairperson of the Gujarat Electricity Regulatory Commission within five weeks from today, and

(ii) the State Commission shall consider and decide the proposal of respondent No.3 company, within six weeks from the date of appointment of the Chairperson.

16. We clarify that we are not granting any stay against the Scheduled hearing of the objections by the State Commission, because Regulation 89 provides that no act or proceedings of the Commission shall be invalidated merely on the ground of existence of any vacancy or defect in the constitution of the State Commission. Even then the proposal of respondent No.3 for increase in the tariff rate is going to have a far reaching effect on the consumers in the State and will impose additional burden on them running into hundreds of crores of rupees, and therefore, we direct that the final decision on the proposal shall be taken by the Commission after appointment of the Chairperson.

2. Mr BD Karia, learned counsel for the applicant i.e. Gujarat Electricity Regulatory Commission submits that the aforesaid directions proceed on the assumption that the hearing of the objections scheduled to take place this month can continue and that after the Chairperson of the State Commission is appointed, the final decision on the proposal of respondent No.3 company will be taken by the Commission presided over by the Chairperson within six weeks from his appointment. However, in view of Regulations 21 and 58 (1), the decision can be taken by only those member(s) / Chairperson who hear the case or who were present during all the substantial hearings of the Commission on such matter. If the Chairperson is not appointed till 7.9.2008, the Chairperson will not be in a position to exercise his vote on a decision or to pronounce judgment on a matter in respect of which some hearings had taken place before his appointment. Mr Karia, therefore, seeks appropriate directions on behalf of the State Commission. It is submitted that since Regulation 16 provides that quorum for the proceeding before the Commission shall be two it will be possible for the existing Commission with two members to proceed with the hearing and to take final decision in the matter in three months time after the hearing.

3. Mr. KB Trivedi, learned Advocate General for the State and Mr Mihir Thakore for Original respondent No. 3 – Company support the above submission. Mr. Thakore further submits that if the proposal of respondent No. 3 is accepted, any delay in hearing the matter will result into loss of Rs. 1.45 crores per day and that in such matters recovery of money with retrospective effect is generally not resorted to on account of resistance from the consumers. Mr. Thakore has further submitted that several State Electricity Regulatory Commissions and even the Central Electricity

Regulatory Commission have been rendering their decisions for granting approval of tariff in respect of the companies under their jurisdiction through orders passed by only two members of the respective Commissions. Even where the Chairperson of the Commission is holding the Office, the remaining two members may and do hear such matters and render their final decisions. A compilation of such orders of the Central Electricity Regulatory Commission, New Delhi and Maharashtra Electricity Regulatory Commission is produced before us. A list of such orders in different cases decided by the different Commissions are also produced indicating that such orders were passed by various Electricity Regulatory Commissions without presence of the Chairperson.

4. Mr. Nirupam Nanavati, learned counsel for the original petitioner, however, opposes the application and submits that since it is the State Government which has been responsible for the delay in making appointment of the Chairperson, the provisions of law cannot be permitted to be defeated by non-appointment of the Chairperson for such a long period and it is insisted that the hearing should take place after the appointment of the Chairperson.

5. Having heard the learned counsel for the parties and having regard to the fact that various Electricity Regulatory Commissions have been conducting their proceedings only through members of the Commission without presence of the Chairperson as permitted by Regulation 16 and also having regard to Regulations 21 and 58 (1), which provide that the Chairperson and /or member (s) who hear the case shall pronounce the judgment and that no member shall exercise his vote on a decision unless he is present during all the substantial hearings of the Commission on such matter, and also having regard to the fact that the State Government is now required to reconstitute the Selection Committee under Section 85 (1) of the Act and, therefore, the appointment of the Chairperson is going to take five weeks, we modify the directions contained in our order dates 31.7.2008 as under :-

While the direction requiring the State Government to appoint Chairperson of the State Electricity Regulatory Commission within five weeks from 31.7.2008 (i.e. by 7.9.2008) shall continue to operate, the State Commission shall consider and decide the proposal of respondent No.3 company expeditiously.

It will be open to the present members of the Commission to proceed with the hearing of the objections against the proposal of respondent No.3 and pass appropriate orders on the said proposal.

6. The application accordingly stands disposed of.

(M.S.SHAH, Actg. C.J)

(D.H.WAGHELA. J.)

Chapter 2

Objections / Suggestions received, TPL's response and Commission's views on the Tariff Petition

2.1 In response to the public notice issued calling for objections / suggestions from stake holders on the MYT Petition filed by TPL for approval of ARR and Tariff for the first control period 2008-09 to 2010-11, forty-two consumers / consumer organizations have filed their objections / suggestions in writing. Out of forty-two objectors those who filed objections / suggestions 38 stakeholders have participated in the public hearings in the months of August and September 2008.

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

The objections / suggestions by consumers / consumer organisations, response of TPL and the Commission's views are as below:

2.2 DELAY IN FILING THE MYT PETITION

Ahmedabad Municipal Corporation has submitted that the MYT petition is filed on 5th May 2008 after a lapse of 3 months 6 days.

Surat Citizen Council Trust – Surat, submitted that the MYT petition is filed beyond the time prescribed i.e 31/01/2008 and should be rejected.

Mr. Sunil Balakrishna Oza and the Fakirbhai Chhotubhai Chauhan, Surat submitted that the MYT petition is against MYT regulations 2007 and normal tariff regulations 2005 and hence petition should be rejected.

Southern Gujarat Chamber of Commerce and Industry, Surat has submitted that part of energy required is being procured from GUVNL. Since GUVNL has also filed Tariff Petition, the TPL petition may be considered on finalization of GUVNL petition. The filling of MYT petition on 6.5.2008 is also objectionable and it may be rejected. MYT petition is not having the required full data / information about FY 2006-07, 2007-08 as "base year" and needs to be rejected.

Surat Municipal Corporation – Surat, has submitted that the MYT petition is filed on 6.5.2008 without valid supporting reasons for the delay. The MYT petition had to be filed, in November 2007 itself as per directive in the last Tariff order 2007-08. There is no further requisition from TPL to extend time after 31.1.08 to GERC.

Mr. Sunil Balakrishna Oza – Ahmedabad, submitted that the TPL MYT petition does not fall under section 61 to 66 of the Electricity Act, 2003 and so the same may be rejected.

Mr. Mahesh. K.Desai, has suggested that the petition itself is not maintainable as it is filed beyond the specified date.

Mr. Aravindabhai Shantilal Rana expressed that filing of total MYT petition itself is wrong and illegal with reference to the last year's directives.

Janjagruthi Abhiyan Sewa Trust, Ahmedabad submitted that the MYT petition is not maintainable, as the filing is against regulations 2005 and 2007.

Many of the objectors represented that the new tariffs needs to be implemented with prospective date and not retrospective date as demanded by TPL.

TPL's response

TPL responded stating that MYT regulations 2007 were notified on 20th Dec, 2007, the comprehensive study of regulations and preparation of the said petition took time as it is the first petition under MYT regulations. The TPL had to assimilate the data and information needed for the control period 01/04/2008 to 31/03/2011. The petition has been filed within 140 days after publication of MYT regulations. It is further submitted that the GERC has the right to admit the petition as per provisions of the GERC Regulations 2005 and GERC Regulations 2007.

Commission View

As the petition is the first one under MYT regulations, the Commission has accepted the petition and taken on record. The Commission has condoned the delay in filing the petition. The new tariffs would be implemented from prospective date.

2.3 Retrospective Application of Tariff w.e.f. 1.4.2008

The Southern Gujarat Chamber of Commerce and Industry and Surat Citizen Council Trust submitted that the petitioner has unduly desired that the increased tariff be increased from 1.4.2008 retrospectively which is not permissible under law.

TPL's Response:

TPL submitted that one of the objectives of Tariff Determination is to arrive at the gap/surplus in the Revenue Requirement which is then allowed to be recovered / adjusted by way of tariff determination. Thus, if tariff order is not allowed to be effected retrospectively, the tariff will need to be so determined to allow the recovery / adjustment of the gap.

TPL also submitted that there is no provision in law that the tariff cannot be revised from the retrospective date, particularly when the control period has been statutorily fixed from 1.4.2008 to 31.3.2011 on the contrary there is a specific provision in Regulation 65 of GERC (Terms and Conditions) Tariff 2005 for tariff revision from the retrospective date if there are compelling reasons. TPL requested the Commission to consider the implication of tariff increase from 1.4.2008.

In this connection TPL has quoted the decision of the Appellate Tribunal in following cases in support of their claim.

(a) 2007 ELR (APTEL) 1658-(Para 9 to10)

Reliance Energy Ltd V/s. Maharashtra Electricity Regulatory Commission and Ors.

(b) Appeal No.70 of 2007 dated September 19, 2007 – (Para 9) Maharashtra State Electricity Distribution Co. Ltd V/s. Maharashtra Electricity Regulatory Commission and Ors.

(c) 1992 (2) SCC 124

Kanoria Chemicals & Industries Ltd & Anr. V/s. State of U.P. & Ors.

The extract of para 7 of the case (b) above is furnished below:

"Further "any gap" on account of delay in filing has to be properly understood. The tariff policy is silent about the meaning and calculation of "gap". The sole aim of tariff fixation by an independent body like the Appropriate Commission is to ensure viability of the licensees while maintaining a reasonable price for the consumer. Therefore, the cost of supply has to be met out of revenue earned by sale of electricity. In case the MYT tariff comes into effect a month later than the day on which it was expected, the required annual revenue minus the revenue realized in that month will have to be recovered in the remaining months of that period. In such a situation the increased cost of the new period will have to be distributed over the remaining period of the MYT. The other way of fixing the tariff, in case of a delay, would be to distribute the ARR over the entire tariff period so that some amount of revenue for the delayed period remains under-recovered. Here again the under-recovered amount has to be recovered in order to maintain the viability of the licensee. However, if the under-recovery caused by increase in tariff is recovered in the rest of the MYT period a carrying cost will be involved. This carrying cost will be an additional burden which, in all fairness, should not be imposed on the consumer and has to be on account of the licensee."

Commission's view:

TPL in its reply said – "Thus if tariff is not allowed to be effected retrospectively, the tariff would need to be so determined to allow recovery / adjustment of the gap."

It is worthwhile to analyze the extract from the decision of the APTEL cited by TPL with a proper perspective and right context. It may be noted that APTEL has primarily addressed the issue of time gap of about a month in the implementation of the new tariff. However, in the case of the order relating to the present MYT petition of TPL, the time gap is more than nine-months. Furthermore, the APTEL has clearly said that there is a need to "ensure viability of licensee while maintaining reasonable price for the consumer". In other words, it is necessary to analyze whether a gap in revenue requirement if not covered would adversely affect the viability of the licensee; even in such a case, the reasonableness of tariff to the consumer is to be kept in mind. For the purpose of ascertaining the viability, one needs to look at the financial performance of the licensee for past years and also likely scenario for subsequent years.

In the same Judgement in Appeal No.70 of 2007, the APTEL has observed as follows:

> *"MERC will now pass appropriate orders making it possible for the appellant to recover the amount denied to it (MSDCL) by the impugned order, either through the process of truing up or by the process of revision in tariff."*

This means that it is for the Commission to decide whether to allow the licensee to recover the amount by a process of revision in tariff or through truing up. In the case of TPL, truing up will need to be undertaken shortly.

The Regulation 65(b) of the "Terms and Conditions of Tariff" Regulations of GERC stipulates:

> *"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 revise the same from the retrospective date in which case detailed justification will be given in writing by the Commission."*

In the present case, there is no compelling reason to give retrospective effect to the new tariff.

2.4 FILING OF COMMON ARR PETITION AND SEEKING UNIFORM TARIFF FOR AHMEDABAD AND SURAT AREAS

Ahmedabad Municipal Corporation has submitted that the licensed area of supply of TPL is not a compact block but comprises three unconnected areas of supply. The distance between Ahmedabad and Gandhinagar is about 25 Km and that between Ahmedabad and Surat areas is about 300 Kms. Ahmedabad area is served by electricity generated at Sabarmati and Vatva Power Stations, where as Gandhinagar and Surat areas are served by power from GUVNL. Since the areas of supply are supplied power from different sources and the price of power from its generating stations supplying to Ahmedabad is less than the price of power purchased and supplied to Surat, the uniform tariff for all the three areas of supply proposed by TPL is contrary to law. The Commission should not determine the tariff on that basis.

Surat Municipal Corporation has pointed out that 'distribution licensee' is authorized to operate and maintain a distribution system for supplying electricity to consumers in his area of supply, (the word area is a singular). Therefore, it is clear that when there are two separate licenses for two separate areas of supply, the petitioner is required to file separate ARRs, namely one in respect of its Surat area of supply and one in respect of its Ahmedabad and Gandhinagar area of supply. When separate ARRs are filed for two separate areas there could be separate tariffs for the two areas. It is also argued that the consumer mix, distribution loss in the two areas are different, normally Surat and Ahmedabad deserve separate tariffs which may be lower in one area than in the other area of supply which are two different licenses for two separate areas of supply though holder of both the licenses is the same.

Adani Energy Limited, Ahmedabad has stated that the present MYT Petition is preferred for Ahmedabad, Gandhinagar and Surat and it cannot be clubbed together. The basic structure and entire data would be different if a separate petition is filed for Surat. The Commission has to intervene and enforce the petitioner to file a fresh separate petition for Surat city.

TPL's Response

TPL has responded stating that the relevant statutory provisions do not mandate filing of separate petitions for determination of separate tariff by utility for its distinct areas of supply.

The petition is filed for determination of retail supply tariff common for the areas of Ahmedabad / Gandhinagar and Surat as all the areas are being served by the petitioner (TPL) as one single entity. There is no requirement in law that the petitioner should file separate petitions for the said areas of supply. There is also no requirement in law that the distribution licensee should file the revenue requirement and seek tariff separately under each license. The legal entity, having two or more licenses, incurs costs and expenses commonly for different activities covered under each license. These costs and expenses are apportioned amongst the various activities in the tariff determination process. There is no provision in law which would require that the tariff for areas of supply should be different. Further there are examples where retail supply tariff to the consumers in different areas of different licensees including in the state of Gujarat have been kept uniform as in the case of four DISCOMs (of erstwhile GEB) in Gujarat.

It is also submitted by TPL that common tariff structure and tariff level are required to be maintained for optimization of costs. Common power procurement shall reduce redundant capacity and shall help in effective load management leading to optimization in power procurement. Common power procurement for larger capacities through multiple sources will mitigate the fuel risk by ensuring a diversified fuel basket. Therefore the petitioner has proposed uniform tariff structure in Ahmedabad / Gandhinagar and Surat areas.

Commission's view

TPL holds two separate licenses for two separate areas of supply i.e. Ahmedabad/Gandhinagar and Surat. One of the objector namely, Surat Municipal Corporation contended that as per Section-2, Sub-section 17 of the Electricity Act, 2003, "a distribution licensee is authorized to operate and maintain a distribution system for supplying electricity to the consumers in his area of supply." The use of singular word for a Distribution Licensee and in his area of supply in the Act, 2003 implies that all the details/data are required to be furnished by Distribution Licensee area wise.

Commission's Regulations and directions issued so far in this regard are in line with the contention of the objector. Therefore, the licensee shall have to file separate ARRs for two areas of supply as per previous directions of the Commission issued in this regard.

The issue whether the tariffs in the two areas to be uniform or different is examined by the Commission and appropriate decision taken.

2.5 SALES FORECAST

Mr. Sunil Balakrishna Oza, Ahmedabad, has submitted that there is no support document for the revenue from sales of Rs 2902.91 crores area wise.

AMC has stated the sales projection by TPL right from 2005-06 to 2007-08 is made without clear historic scientific method.

Surat Municipal Corporation submitted that the sales forecast should be based on "base year" 2007-08 and on audited account of sales, area wise/ licence wise and not other wise.

TPL's Response

TPL has responded stating that the sales have been projected based on the historic growth of demand and sales in both Ahmedabad and Surat areas separately, which are indicated in the MYT petition itself. The revenue from sales projected is at the existing Tariff rates.

Commission View

The sales forecast furnished in the MYT petition is indicated, area wise and is based on the historic data over a five-year period. After scrutiny of the data the Commission has considered the sales projection with adjustments required if any.

2.6 POWER PURCHASE

Mr. Fakirbhai Chhotubhai Chauhan expressed that TPL has not presented the facts of power purchase cost and quantity of power purchased from GUVNL & TPL(G). The particulars in chapter '9' are unilateral to make profit to the company. The TPL has not given the quantity of power purchased from GUVNL specifying the unit rate of selling by GUVNL.

The Ahmedabad Municipal Corporation – Ahmedabad, objected that if GUVNL power is cheaper, the need to opt for SUGEN power is not wise. The SUGEN input costs and tariff are to be dealt by CERC.

Katargam Industrial Estate Shareholders Association, Surat Grey Kapad Utpadak Sangh and Ved Road Art Silk Small Scale Cooperative Federation Limited, Surat have submitted that an enquiry should be set up on TPL daily purchases and sale of energy activities.

Mr. Sunil Balakrishna Oza, Ahmedabad, submitted that making own generation ineffective lead to purchase of power at high cost and common man suffers and results in tariff increases.

Mr. Mahesh. K. Desai, Surat has pointed out that the rate of power purchase from GEB and other sources are not finding place in the MYT Petition.

Consumer Education and Research Society – Ahmedabad, submitted that the cost of purchase of power from SUGEN should be competitive and comparative to GUVNL power. It has also stated that the Fuel adjustment cost and Power purchase adjustment cost are being recovered from Consumers. Further raise in Tariff will burden the consumer.

South Gujarat Chamber of Commerce and Industry, Surat suggested more explanative details on purchase of power from GUVNL and other sources of purchase of power.

Surat Municipal Corporation has stated that the raise of power purchase + fuel cost from 2005-06 to 2007-08 was 25%, where as power purchase + fuel cost from 2005-06 to 2008-09 is 55%.

(Rs. lakhs)

	2005-06	2007-08	2008-09
Cost of purchase of energy + fuel	172457	216010	266532

TPL 's Response

The petitioner is purchasing power, for the shortfall to meet the demand in addition to its own generation at the existing and proposed stations. The power purchase bills are being submitted for scrutiny (quarterly) to the Commission for review and for approval for the fuel and power purchase price adjustment (FPPPA). Hence there is transparency about purchase of power from the existing sources and that projected as per requirement.

The TPL has stated that SUGEN power would enhance quality of power supply.

The recovery through FPPPA formula provides for increase in fuel and power purchase cost only in the intervening period of approval of tariff.

Commission's View

TPL meets its power requirements mostly from own generation at Ahmedabad and SUGEN and balance power from GUVNL. The quantum of purchase and cost are scrutinized and approved by the Commission.

2.7 TPL GENERATION PLANTS

Grahak Suraksha ane Pagla Samiti, Ahmedabad, stated that the generation plant of Torrent Power Ltd. at Kamrej will enable the company to supply electricity to many new domestic, industrial and commercial customers. The Torrent Power Ltd. intends to cater its services to area under Surat Urban Development Agency (SUDA) but the State Government has not yet given its permission to cater to additional area under SUDA. The State Government must clarify its position on this issue, so that the sales pattern of Torrent Power Ltd. would be determined. If additional energy is supplied to GEB, the realization would be different but if it is permitted to distribute in larger area to its retail customers, the realization would be different.

South Gujarat Chamber of Commerce and Industry, Surat has mentioned that the Government of Gujarat is yet to give approval to SUDA area.

Surat Municipal Corporation has objected to the adding of IDC of Rs. 89 crore for SUGEN and passing of inefficiency of TPL to consumers and sated that the same should not be permitted.

TPL's Response

The TPL responded stating that they have not made any such application (for SUDA) to the Government of Gujarat.

The IDC interest claimed Rs. 89 crore only due to uncontrollable factors.

The SUGEN plant has been established with State Government approval to have independent, quality power to Ahmedabad and the Surat areas and tariff is to be approved by CERC and any difference is to be passed on through power purchase cost.

Commission 's View

The tariff for SUGEN project has to be dealt by CERC as it is an inter- state project. CERC may go into the delay in the execution of project and the costs involved and adjustment in cost of power from SUGEN power plant of TPL shall be effected as per CERC approved tariff.

2.8 PURCHASE OF COAL

Ahmedabad Municipal Corporation and Consumer Education and Research Society, Ahmedabad submitted that purchase of imported coal at higher rate with almost the same calorific value as that of indigenous coal is a burden to the consumers. The TPL should opt for indigenous coal with least burden to the consumers.

Mr. F.C. Chauhan submitted that the price of coal purchased and transit loss of coal is on high side.

TPL 's Response

The TPL gets 70% of its total requirement of coal from indigenous sources. The balance coal has to be imported to maintain the need based generation. This is a matter concerned with coal linkage, which, essentially, is not within the purview of TPL.

However all efforts are being made to reduce costs. The indigenous and imported coal are purchased in terms of heat value 68:32 where as in terms of quantity it works out to 75:25. The imported coal is sourced from Indonesia. The average cost / Ton of indigenous coal is Rs. 2896.76 and that of imported coal is Rs. 3303.51.

Commission's view

TPL has to import coal to meet the shortfall from indigenous sources.

TPL has no control on the coal linkage. Coal from indigenous sources is allocated by the Linkage Committee. The quantum of coal obtained and costs are duly scrutinized and approved.

2.9 COAL TRANSIT LOSS

Janjagruti Abhiyan Seva Trust – Ahmedabad, has submitted that the Transit Loss of coal of 3.5% is in violation of Regulations. Further it is objected that the coal need to be transported as per concluded agreement. The deficiency in monitoring should be on TPL account only and consumers should not to be burdened.

Gujarat Chamber of Commerce and Industry submitted that coal transit loss of 3.5%, requires detailed review.

Consumer Education Research Society – Ahmedabad, has submitted that the claim of coal transit loss is high at 3.5% as against allowable loss as per GERC regulation of 0.8%.

Ahmedabad Municipal Corporation - Ahmedabad, has submitted that transit loss of coal is to be limited to 0.8% as coal transit loss considered for 2006-07 was 1.95%. Coal transported/received is not showing details of coal receipts as per agreements made with coal blocks.

TPL's Response

The TPL has responded stating that the Coal is received from South Eastern Coalfields located in Chhattisgarh at a distance of more than 1300 km. The (element of loss in weightage and) transit loss is directly related to the distance of travel. There are also other factors which are beyond the petitioner's control and hence the company is claiming 3.5% transit loss.

The company has established fully functional 24 x 7office at Manendragarh for monitoring, supervising and checking the loading by SECL. It is also deploying armed guards at random to accompany rakes from the siding to generation facility at Sabarmati. The efforts have been made to reduce its transit losses from 8% to 3.5 %. It is of the opinion that no further reduction of transit loss is possible. The loss of 3.5%is inevitable and not controllable further. It is also referred that RERC has allowed 2.5% transit loss and West Bengal ERC has allowed 1.5% transit loss, where the coal fields are nearer to the generation station.

Commission View

It is true that the coal is transported over a long distance. Some elements of loss are related to distance. Considering the factors involved, the Commission has allowed reasonable transit loss.

2.10 Employee, A&G and R&M expenses

Mr. Bipinchandra I Gonawala – Surat, has submitted that the employee strength and the cost is high comparative to similar licensees of GUVNL.

Adani Energy Ltd – Ahmadabad, has objected that the petition does not contain information function wise generation and distribution, O&M, depreciation and administrative expenses.

Consumer Education and Research Society – Ahmedabad, has submitted that -

(a) the employees cost at 10% increase in each year of control period is highly exaggerated. The actual details of retired, resigned, removed employees for last three years need to be projected with details of expenses for clarity.

(b) Voluntary retirement estimation amount of Rs. 16.19 crores is also objectionable, as TPL should not imagine the V.R.S and provide the amount. This can be added to actuals of 2009-10 on annual review by the Commission.

(c) A&G expenses 2007-08 actual is Rs 23.73 crores and increase of 5% for each year of the control period should be out rightly rejected, as the component is very high and not as per actual conditions.

(d) The incentives proposed at Rs. 12.78 crore should be rejected as the company is showing loss and required to reduce operational cost.

Janjagruti Abhiyan Sewa Trust has also objected to the incentive of Rs. 12.78 crores to the staff. It shall be paid from company's profit.

Ahmedabad Textile Mills Association – Ahmedabad, has stated that maintenance expenses shown are very high, it should have support documents.

Surat Municipal Corporation has submitted that Rs. 389.58 crore was approved by GERC for base year 2007-08 to meet O&M expenses. The revised estimate as per MYT petition is Rs. 365.93 crore with out SUGEN(i.e SUGEN O&M cost is Rs. 23.65 crore). The proposed O&M expenses for 2008-09 for generation and distribution are Rs. 469.37 crore i.e an increase of Rs. 79.79 crore i.e 20% increase at a time. The employee cost under revised estimate is Rs. 47.14 crore for 2007-08 as against Rs. 68.04 crore for 2008-09 which is irrational even taking account of inflation etc. This may be rejected.

Gujarat Chambers of Commerce & Industry has submitted that petitioner has shown substantial increase in employee cost.

TPL's Response

The incentive referred (Rs. 12.78 crores) by the objectors is for achieving high PLF of Ahmedabad generating station and this is claimed as the PLF is higher than that prescribed by GERC and is claimed as per the provisions of regulation 22 of 2005. Further, the growth in power industry has resulted in huge demand of skilled and experienced manpower to achieve good result. TPL is finding it difficult to maintain the system with the existing manpower and to meet the present needs by maintaining better quality of supply. Year to year increase of 10% against salary expenses is due to normal increments, inflation,

induction of new employees etc. Further there is 5% increase in A&G expenses which is normative expenditure. The O&M cost is required to be incurred to maintain the current level of performance which is reflected by plant availability factor and plant load factor which is above 90% and station heat rate is very low.

R&M Expenses are incurred to maintain quality supply to the consumers.

Commission's view

The Commission has scrutinized the O&M expenses projected by TPL in the MYT Petition and approved only to the extent they are allowable. An annual increase of 6% is considered during the control period to cover normal growth and inflation.

2.11 DISTRIBUTION LOSSES

Janjagruti Abhiyan Sewa Trust – Ahmedabad, objected to the increase of T&D loss from 9.26% during 2007-08 to 10.5 % for FY 2008-09 without giving any justification (by TPL).

The Consumer Protection and Action Committee for Gujarat State, Ahmedabad, made a suggestion to reduce theft by sincere effort and reduce T&D loss by frequent monitoring.

Mr. Mahadeo Ishvarlal Desai, Surat expressed that T&D loss shown in MYT petition is imaginary and mentioned that there are a number of deficiencies and that adequate steps are not being taken to reduce losses.

Surat Municipal Corporation – Surat, has suggested that the T&D losses are to be displayed separately for Ahmedabad, Gandhinagar and Surat areas instead of showing as 8.75% combined losses for 2007-08. The TPL has saved 0.51% of units purchased. The decrease in units purchased leads to increase in profit. Hence the losses for the control period to be worked out based on 8.75% and not on 10.50%, 10.25%, and 10% for the years 2008-09 to 2010-11. TPL has ignored the directive of the Commission to segregate technical and non technical losses.

Mr. Bipinchandra Gonawale objected to further investment to reduce loss levels despite economical limit already reached. This will increase assets only and burden the consumers. There shall be economical way of investment for higher efficiency.

Grahak Suraksha ane Pagla Samiti – Ahmedabad, stated that the consumers should not be burdened of higher T&D losses.

Ahmedabad Municipal Corporation has objected to the indication of losses as 10.5% (in the MYT petition) for 2008-09 as against approval by GERC of 9.26% for the year 2007-08.

Gujarat Chamber of Commerce submitted that the TPL has claimed higher T&D loss than actuals.

TPL's Response

The objectors have objected to the increase of distribution loss to 10.50% from 9.26% for year 2008-09. The projected loss is based on the rapid load growth in Licensee area on the same existing infrastructure. Higher load flow increases I^2R loss. The load growth is met through the existing network, the components are further loaded, and then it becomes necessary to incur capital expenditure to relieve the same and maintain the loss level. Increase of loading thus adds to increase in loss. 70% of additional load is from LT. Further

the petitioner is adding 33 KV network for reliability of power supply. This is planned to maintain technical loss, even though the load density increases. The adding of 33 KV voltage will initially increase the transformation losses and then loss level would stabilize. This petitioner has proposed to source power from SUGEN plant to SURAT supply area through its own net work. The line losses of this 220 KV network will be added to the total losses of the system.

The petitioner is actively making efforts to reduce T&D losses by proper metering, billing, controlling of theft, adding of distribution transformers, optimizing the ratio of HT / LT lines, installation of capacitors, reconductoring. TPL is also proposing HVDS systems in theft prone slum areas. It has formed squads to prevent theft of energy. Optimizing the equipment loading and appropriate load mix correction is under taken.

Commission's View

The commission has taken note of the objections raised and response of TPL, T&D loss is a key parameter not only in terms of energy supply requirement but also energy efficiency of supply system. There is valid, legal, economic, social justification to limit the T&D losses as per the analysis of historic data clubbed with the capital investment year to year. Appreciable efforts have been made by TPL to reduce distribution losses to 8.75%. While appreciating the efforts made by TPL to reduce distribution loss, TPL is advised to continue its efforts in this regard. The Commission has fixed loss trajectory during the control period as discussed in Chapter-4.

2.12 TARIFF RELATED ISSUES

Surat Citizen Council Trust – Surat, has submitted that the raise in tariff will affect the living conditions of public as a whole. Hence, the raise of tariff may be rejected as the TPL is earning profit even with the existing tariff.

The Communist Party of India has expressed that tariff raise is high and TPL petition may be rejected, as it has already burdened consumers at lower level in last year tariff itself.

J.B Diamonds Limited – Surat, objected that the increase in power tariff with retrospective effect from April 2008 is not justifiable. The diamond industry is facing recession all over due to volatility in foreign exchange rate, slow down in US, reduction in demand to buy diamond jewellery. It is also suggested that Gem & Jewellery industry which earns valuable foreign exchange for the country is given incentives and should be classified under separate category.

Adani Energy Ltd. stated that, the present petition is silent on almost every aspect of because it does not explain revision in great detail with illustration to all categories of consumers. The upward revision in tariff to all categories, more particularly high-tension consumers, therefore requires to be ruled out.

Adani Energy Ltd has also expressed that there cannot be any common Tariff for Ahmedabad, Surat and Gandhinagar, as the areas have different consumer mix, culture and usage and covered by separate licenses.

Surat City is being supplied by bulk supply purchase from GUVNL unlike Ahmedabad and Gandhinagar. So uniform Tariff should be rejected as there is variation of average cost of supply area wise.

South Gujarat Chambers of Commerce and industry and Surat Citizen Council Trust-Surat, expressed that TPL statement reveals that efficiency, productivity increase and equally profit. The profit also should be passed on to consumer through reduction of Tariff as a reasonable return of 14% is already included in the petition. Hence raise of Tariff further should be rejected in total.

Mr. Sunil Balakrishna Oza - Ahmedabad, has submitted that the raise of tariff is unjustified from consumer point of view while the TPL has made a profit of Rs. 211.24 crore during 2007-08 and reasonable return of 14% additionally is also satisfying the TPL concurrently. Hence the raise of Tariff should be rejected.

Gujarat Adani Energy Ltd. - objected that raise of tariff upwards is unjustified, which should be rejected, as it is not as per historic scientific methods of approach.

AMC objected the raise of tariff by 0.32 Ps. to AMC while the TPL has made profit of Rs. 211.24 crore during 2007-08 and requested that the raise of tariff should be rejected in total.

Consumer Education and Research Society – Ahmedabad, submitted that TPL demanded tariff revision for next 3 years. But as per MYT regulations it has to be revised for 2008-09 and based on the performance. The tariff for 2009-10 can be reviewed and so tariff revision for 2008-09 only is to be considered. It also objected for the revised tariff structure and number of categories proposed by TPL and pointed out that two important elements in tariff – Fuel and power purchase costs have already been recovered through FPPPA. Further increase in tariff is unjustified.

Mr. Jigneshkumar R Virani, Surat objected to domestic tariff increase of Rs. 0.50 per unit and increase of fixed charges on single phase to 200% and on three-phase to 133%. The fixed charges and energy charges proposed for commercial three-phase are very high.

Mr. Aravindhhai Santilal Rana stated that increase of tariff is not justified while the TPL is a profit making company.

Gujarat Chamber of Commerce and Industry – Ahmedabad, stated that the consumers are made to pay for the inefficiencies of TPL.

The Gujarat Pradesh Congress Committee and Gujarat Auto Rickshaw Drivers Action Committee have objected to the raise of tariff rates as it affects majority of middle class and lower middle class and others.

Shri F.C. Chauhan submitted that raise of tariff is unjustified.

TPL's Response

In spite of increase in input costs etc, the tariff remained unchanged over the last 7/8 years. TPL has managed through improvements in operational efficiencies etc and the same has been passed onto the consumers in the form of no tariff revision. It is not possible for the company to absorb further rise in cost and hence the tariff revision is sought.

Commission View

Tariff determination is considered as per GERC and MYT regulations on scrutiny of the data furnished by TPL, keeping in view the suggestions and objections of various stakeholders.

2.13 TIME OF DAY (TOD) TARIFF

J.B. Diamonds Limited and Mr. Mahesh K Desai stated that the TOD tariff cannot be applied for Diamond Industry as the usage of energy is only during day time upto 7 pm for security reasons. It is against the guidelines enumerated under Section 61 of E.A. 2003 which stipulates that interests of consumers shall be safe guarded by ERC.

Surat Municipal Corporation – Surat, objected the TOD Tariff for public service like SMC, as the usage is essential to supply filtered water to public. This will have cascading effect on public.

Consumer Education and Research Society- Ahmedabad submitted that TOD charges should be rejected as suitable time of use (TOU) meters are not yet fixed and TOD charges are being collected arbitrarily at 8 Hrs per day, which is incorrect and improper. It has urged not to approve TOD charges for commercial consumers.

Surat Diamond Association – Surat, requested exemption of TOD charges to diamond industry as production of diamonds is only during daytime and the Diamond Industry is earning foreign exchange to the country.

TPL's Response

Metering time of usage in peak hours and off peak hours is to monitor the load demand and usage of energy as per their productivity based requirement to safeguard grid system in peak and off peak hours and to flatten the power demand curve. The night usage of energy is cheaper and more economical for production. The power purchase cost is also cheaper.

The collection of TOD charges are through metered data only and not other wise or arbitrarily.

Commission View

TOD tariff is required to flatten the load curve and reduce peak demand on the system. Deficiencies if any in implementation of TOD will be looked into by the Commission.

2.14 CAPITAL EXPENDITURE AND COST BENEFIT ANALYSIS

The Ahmedabad Textile Mills association – Ahmedabad have expressed that investments made are not prudent particularly in items like cables, transformers etc and require technical evaluation to be got done (for capital investment).

Mr. Bipinchand I. Gonewala and Mr. Mahadev I. Desai of Surat objected that TPL is unprudently investing on various works for increasing asset value and rate base but not in the interest of consumers.

Mr. Sunil Balakrishna Oza – Ahmedabad, submitted that the high capital expenditure for 2008-09 to 2010-11 is without positive results. Analysis on each investment and benefit to consumers is required to be done.

Consumer Education and Research Society – Ahmedabad, has expressed that the burden of Rs. 89 crores due to delay in commissioning the SUGEN project should not be passed on to consumers.

The Surat Municipal Corporation – Surat, argued that the investments made in past 4/5 years are to be evaluated on the factual basis and ARR should be allowed. The total capital expenditure for 2002-05 is Rs. 682.53 crore, where as the proposed capital expenditure for 2008-09 alone is Rs. 610.26 crore, the classification of investment plan is not given along with benefits.

TPL's Response

The capital investments are made for the capacity creating, net work strengthening and network modernization, to provide quality supply to consumers, reduce losses and to improve customer service.

The delay in commissioning the SUGEN project is only due to uncontrollable factors and IDC claim is as per GERC regulations only. The required data in determining the Tariff has been indicated in MYT petition.

All purchases of materials are made in a transparent manner.

Commission View

Capital investments are required for capacity creation to meet additional demand, distribution loss reduction and improve quality of supply and services to consumers. The proposed investments are scrutinized as per GERC Regulation and APTEL (Appellate Tribunal for Electricity) decisions.

2.15 CLASSIFICATION OF TARIFFS / CATEGORIES

Consumer Education and Research Society – Ahmedabad, objected to redesigning of tariff structure and increasing the number of slabs. The number of categories would have been reduced. It is stated that increase in fuel & purchase costs are recovered every quarter and there is no further justification for increase in tariff.

Adani Energy Ltd - Ahmedabad, submitted that it is the biggest consumer supplying CNG to the public for usage on transport and so it may be considered for HT tariff as is being allowed to AMC and ONGC.

Surat diamond Association – Surat, suggested that demand based tariff should be made for above 50 kW load and as Diamond industry is earning foreign exchange it should be specially categorized.

TPL's Response

The basic philosophy adopted for restructuring tariff categories is to categorize the consumers based on end use of electricity i.e residential, commercial, industry etc. This kind of categorization is normal. Demand based tariff is introduced for the purpose of effective load management. It is submitted that recovery in fuel & power purchase cost through FPPPA is not adequate to meet all the costs of distribution business. Hence increase in tariff is sought.

Commission View

The proposals of the licensee and objections raised are examined and a decision has been taken by the Commission on the tariff structure etc keeping in view the interests of consumers and the utility.

2.16 FUEL COST ADJUSTMENT

Consumer Education and Research Society – Ahmedabad, suggested two separate formulae for fuel cost adjustment and power purchase adjustment. TPL in its petition indicated almost 10 % increase in the above items. Distribution companies should submit their audited expenses incurred on fuel and power purchase every quarter.

Mr. Fakirbhai Chhotubhai Chauhan objected that the fuel cost adjustment is burdening again and resulting in duplication of account.

The Consumer Protection and Action Committee – Ahmedabad, objected to the fuel charge increase through FPPPA.

Ahmedabad Municipal Corporation – Ahmedabad, objected to the provision of fuel cost adjustment clause and stated that the licensee should anticipate the cost increase and formulate tariff.

TPL's Response

The fuel cost adjustment charges are raised only when there is variance in actual price of fuel purchased and are being approved by the commission from time to time based on the operational parameters. The variances may be due to increase in fuel prices or the cost of power purchased.

The GERC has specified normative performance parameters and there is no question of passing the inefficiency to the consumers. The fuel prices are generally uncontrollable in nature. Actual variances in price of power purchased or increase fuel price or change in generation mix is a pass through.

The FPPPA charges + present charges of energy are to be borne by the consumers. The tariff can be revised not more than once in a year. Hence the FPPPA charges are being recovered as approved by GERC as uncontrollable costs.

Commission View

The fuel and power purchase adjustment formula is approved by the Commission. The data furnished by the licensee on the claims made towards increase in fuel price and power purchase cost is scrutinized by the Commission.

2.17 MINIMUM CHARGES

M/s J.B Diamonds Limited has submitted that the regulation to collect minimum charges needs to be given due consideration and rectified. The minimum charges, we believe, are required to be paid for initial period of two years after new connection is given and if this is true, the minimum charges collected after the end of the second year is unjustified.

S/Shri Kantilal Uttamram Dokoria, Jitendra Sammukhalal Danecha and Mahadev. I. Desai – Surat, submitted that no minimum charges should be collected after completion of two years from the date of supply.

TPL's Response

The TPL replied that recovery of minimum charges is only as per Supply Code.

Commission's view

This will be reviewed by the Commission and appropriate decision taken.

2.18 FIXED CHARGES IN TARIFF

The Southern Gujarat Chamber of Commerce and Industry and Surat Citizen Council Trust –Surat, have submitted that -

(a) the increase in fixed/ demand charges for single phase 200% and 100% for three phase have been proposed which are very high and there should not be any fixed charges.

(b) the Increase in fixed charges on LT/HT should not be passed on to consumers as they are very high and there is no scientific approach in arriving at these costs. The cost of unit charges is mounting up for each unit of recovery even if fixed charges are levied, that charges should be adjustable in energy charges.

Grahak Suraksha ane Pagla Samithi – Ahmedabad, stated that monthly fixed charges indicated in petition are very unfair.

Mr. Mahadev.I Desai – Surat, has stated while TPL is collecting 100% distribution cost from consumers and again charging of fixed + energy charges is objectionable.

TPL's Response

The fixed charges are being charged as it is being collected by other utilities in the country. The fixed charges are two part tariff component as per Section 45 of the Electricity Act, 2003. The increase in fixed charges is only to meet the capital costs invested.

The tariff is minimum compared to the other utilities/DISCOMs. The recovery of fixed charges is according to the approval given by the GERC. The issue falls under the powers of Commission.

Commission View

The fixed charges pertain to the investment costs and energy charges to the fuel (variable) cost.

The Commission has examined to what extent the fixed costs could be built into retail supply tariff to avoid undue burden on consumers and a decision has been taken accordingly.

2.19 CONSUMER GRIEVANCE REDRESSAL FORUMS

Surat Municipal Corporation – Surat, has stated that the Consumer Grievance Redressal Forums under the Electricity Act 2003 are acting unilaterally, though they have to perform their functions by maintaining equidistance from licensee and consumers.

Mr. Mahadev I. Desai has stated that Forums had not registered any complaint for nine months. Now the complaint is registered and TPL's manager is giving wrong information to Forum.

The Gujarat Pradesh Congress Committee has objected to the negligent way of resolving problems by the Forums.

The Communist Party of India have also objected to non resolving the problems by licensee / Forum.

TPL's Response

The licensee has provided for resolving grievances at corporate level. In case the consumers feel difficulty to get the problems solved they can approach the management and Forum or Ombudsman for redressal of their grievances which are established as per Act 2003 under Section 42 (5) and 42 (6).

Commission's view

The licensee shall invite complaints by giving wide publicity and resolve the problems of consumers. The licensee has to establish the Forum with full time Members with a 3 years fixed tenure. The Forum shall maintain equidistance between the licensee and the consumer and resolve the issues. The licensee agreed to report compliance on this issue.

The TPL shall follow the Supply Code and resolve complaints in time and arrange the required personnel sector-wise to report the compliance to the TPL who should submit quarterly report to GERC.

2.20 DEMAND BASED CHARGES

Ahmedabad Textile Mills Association has submitted that the demand based category above 15 kW for residential is highly irrational and objectionable.

Mr. Mahadev. I. Desai, Consumer Protection Council, Ahmedabad Municipal Corporation, Consumer Education Research Society, Surat Municipal Corporation objected to the demand based tariff for residential above 15 kW and below 50 kW as it is a double benefit to the company and will lead to additional burden on consumers.

TPL's Response

TPL has responded that,

- Categories are segregated based on paying capacity into 3 to 4 categories.
- Demand based tariff proposed to regulate the demand and excess usage / wasteful usage.
- For the purpose of effective load management and to monitor and control demand
- To plan to meet the load growth by system upgradation to meet the over drawal / underdrawal with suitable penal rates.
- To control wastage of energy by way of multi load use and an option to residential category to switch over to lower tariff.

Commissions' view

The Commission has examined the proposal of the licensee, the objections raised and practices in other utilities and will take an appropriate decision on the issue.

2.21 BAD AND DOUBTFUL DEBTS/ ARREARS

The Consumer Education and Research Society – Ahmedabad, has stated that the licensee has failed to recover huge amount under bad and doubtful debts and wants to pass on the burden to other consumers. Such consumers are to be disconnected.

Ahmedabad Municipal Corporation - Ahmedabad, objected for burdening consumers on account of recoveries of doubtful debts and inefficiencies of TPL.

TPL's Response

The TPL is following the prudent, commercial practices to cause recovery. However distribution business has the inherent business risk and the proposal for waving of 0.2% of the total turnover is minimal. The Commission is therefore requested to approve the same.

Commission View

The provision for bad and doubtful debts is allowed as per Commission's Regulations.

2.22 INTEREST ON SECURITY DEPOSITS

Ahmedabad Municipal Corporation, Ahmedabad and Mr. Mahadev. I. Desai have expressed that interest on consumer security deposit is allowed at 6 % while delay in payment of C.C charges are collected at 15% interest rate.

Mr. Mukesh Kumar Bikhubai Desai Surat expressed that S.D interest should be paid as is being levied on delayed payment surcharge at 15%.

Mr. Bipinchand .I. Gonawala objected that the TPL is charging higher rate of interest for delayed payment at 15% where as interest allowed on S.D is very low at 6%.

Mr. Maheshbhai .S. Choksi has stated that SD interest rate is very low comparatively.

J.B Diamonds Limited has submitted that S.D interest should be 15% as the deposit is for lifetime. TPL charges 15% DPC on delay of payment of bill by a month.

Shri Maheshbhai S. Chokshi, Shri Jagadishbhai K. Avaiya and Shri Tulasibhai, Bheemjibhai Goyami have expressed views on low interest on security deposit.

TPL's Response

The interest on SD is allowed as per guidelines given by GERC only. The activity of delay on payment of energy charge and consequential surcharges is different to that of interest allowed on fixed amount of SD available. The delayed payment surcharge is collected as per GERC approved rates only.

Commission View

The Commission considers that the interest rate on S.D and interest on delayed payment do not require any review. The delayed payment charge is levied to make the consumers to pay their dues to licensee in time to enable the later to provide prompt consumer services.

2.23 QUALITY OF SUPPLY / SERVICES

Consumer Education Research Society – Ahmedabad has stated that Commission has notified Regulations on Standards of Performance but they are being violated.

Mr. Mahadev.I. Desai, Consumer Protection Council – Ahmedabad, pointed out about the improper service on maintenance and operational matters and non compliance of directives of GERC.

Ahmedabad Textiles Mills association – Ahmedabad, has stated that the quality of supply may be good but is not good enough for expanding the economy of Ahmedabad and Gandhinagar. There are considerable voltage fluctuations.

TPL's Response

TPL has responded stating that the utility is one of the best in the country in terms of reliability and quality of power. The utility has got a shield for this for third consecutive year.

Commission View

If there are any specific issues in quality of supply or customer service the consumers may bring to the notice of Consumer Grievance Redressal Forum & Ombudsman for their redressal. The Commission will also monitor redressal of consumer grievances and quality of supply of the utilities / licensees.

2.24 DATA INADEQUACY / DISCREPANCY

Ahmedabad Textile Mills Association - Ahmedabad, requested for proper data/accurate particulars year to year from 2005-06 to 2007-08. The base year should be 2007-08 with audited accounts, followed by analysis on each issue.

Consumer Education and Research Society – Ahmedabad, expressed that data given is inadequate and actual audited accounts for 2005 to 2008 function wise, area wise, need to be projected based on actual accounts audited upto 2007-08.

Mr. Mahesh .I. Desai stated that the data furnished by the petitioner is not tallying with audited accounts of base year 2007-08. It appears that figures shown in petition are not coordinating with past historic data. Proposal to raise tariff on such data is irrational.

Surat Municipal Corporation has stated that the real data over 5/6 years are to be chronologically evaluated to arrive at correct ARR.

Ahmedabad Municipal Corporation has also raised objection about inadequate information indicated in MYT petition.

TPL's Response

All the information and required data has been filed in the MYT petition as desired by GERC and as per section 62 of Act 2003 followed by MYT Regulations 2007 and it is as per the revised estimate.

Commission View

The Commission has studied the information / data filed in MYT Petition and asked the licensee to fill gaps in information / data wherever required to scrutinize the ARR.

2.25 TRUING UP FOR FY 2007-08

Janjagruthi Abhiyan Sewa Trust – Ahmedabad, has objected to the increase in revenue gap to Rs. 137.84 crore against the approved gap of Rs. 24.29 crore by the Commission for FY 2007-08. The TPL has not mentioned details for the huge spending. The cost due to inefficiencies of the petitioner should not be transferred to consumer.

Consumer Education and Research Society – Ahmedabad, has stated that the petitioner has indicated shortfall of Rs. 137.87 crore against approved short fall of Rs. 24.29 crore for 2007-08, thus transferring burden of Rs. 113.55 crore to consumers and requested the Commission not to transfer this amount to consumers.

The Surat Municipal Corporation – Surat, has objected to the TPL's claim of Rs. 137.84 crores in Truing up for FY 2007-08 where as TPL has earned Rs. 186.95 crores as profit during 2007-08 and that too after claiming loss of Bhiwandi Distribution (Franchise). Bhiwandi details are not indicated as required, which appears to have been included in the shape of man power in TPL account and attending the "Bhiwandi" Franchisee.

Ahmedabad Textile Mills Association and some others have stated that the petitioner's request to allow the gap of Rs. 137.84 crore while truing up should not be considered.

TPL's Response

The revised estimates are prepared as per actuals coordinated with last year tariff order, which are being reviewed by the Commission under truing up exercise. The Hon'ble Appellate Tribunal for electricity in a catena of judgments held that there has to be a truing up after the financial year initially based on provisional data. The Bhiwandi expenses are not included in MYT petition. ARR Bhiwandi is a separate activity with a separate account. Hence the truing up exercise needs to be done as per rules.

Commission View

The Commission has finalized the 'Truing up' after taking into consideration all the relevant factors.

2.26 MISLEADING ACCOUNTS

Mr. Mahadev. I. Desai expressed that accounts given are not true figures. The O&M costs are repeatedly incorporated. The power purchase cost in revised estimate have increased disproportion to the sales recovery.

Mr. Fakirbhai Chotubhai Chauhan objected that the accounts given in MYT petition and the audited accounts are misleading and burdening the consumers. The real facts and figures given by TPL are not as per annual audited accounts. The figures are projected to get wrongful favour to the petitioner only.

Surat Municipal Corporation – Surat, has pointed out that MYT petition has shown that the Commission has approved for 2007-08.

- Total Expenditure of Rs. 2932.08 crores
- Total income of Rs. 2907.79 crores
- Total Loss of Rs. 24.29 crores

where as the actuals as per Directors report, show that the company has made Rs. 211.24 crores as profit.

Surat Municipal Corporation has also expressed that base year FY 2007-08 audited accounts should be taken for the control period of 2008-09 to 2010-11. The revised un-audited estimates for 2007-08 are taken for future which is incorrect and improper. If the truing up exercise for 2007- 08 is approved, this results in cascading increase of tariff will be to the tune of 21.6% for the three-years. The GERC should not allow this based on un-audited accounts for whole three-year period, which may lead to burdening the consumers heavily. The power purchase cost including fuel cost is increased by 28% only for FY 2008-09.

Sri Mahesh . K. Desai stated that A.R.R gap projected in the petition is misleading than audited reports of 2007-08.

Ahmedabad Municipal Corporation - Ahmedabad, stressed the need for audited accounts for base year 2007-08 under cascading method from 2005-06. Power purchase including fuel costs are very high for 2008-09.

TPL 's Response

The accounts are audited by Chartered Accountants of India as required by company Act 1956 and all particulars are furnished as required by the Commission for issuing MYT tariff order for the year 2008-09 to 2010-11. There is no room for misrepresenting the facts. The Commission will have scrutiny on each issue.

Commission View

The Commission has subsequently obtained Audited Accounts for 2007-08 and the data based on Audited Accounts for the year 2007-08 are considered as that for the base year.

2.27 NEW CONNECTION

J.B. Diamonds Limited has submitted that they are facing difficulties in getting new connections as demands are made for place/location to establish sub-station without allowing any compensations therefor. Monthly Rent of more than Rs. 10,000/- should be paid for sub-station land given.

TPL Response

The new connections are given as per rules only. In case monthly rent on SS is increased, that is to be passed on to consumers.

Commission's view

The TPL shall follow the supply code strictly. The consumer may file a complaint before the consumer grievance Forum and Ombudsman for their grievance on this account.

2.28 NON COMPLIANCE OF COMMISSIONS DIRECTIVES

Surat Municipal corporation – Surat, has pointed out non compliance of Commission's directives (as per Tariff Order 2007-08) by TPL.

Ahmedabad Municipal Corporation- Ahmedabad, has also objected to non compliance of the directives of GERC by TPL which need to be dealt as per Act 2003 Section 142.

TPL's Response

The Directives of GERC are scrupulously followed and reports are submitted to the commission.

Commission View

Compliance of directives issued by the Commission in Tariff Order 2007-08 are reviewed and fresh directives issued are dealt in Chapter –6 of this Order.

2.29 GENERAL ISSUES

Janajagruti Abhiyan Seva Trust – Ahmedabad, has objected to the employees being paid incentives without any productivity basis / norms.

Mr. Mahadev.I Desai has submitted that,

(a) Low tension power supply to the Industrial consumers should be upto connected load of 75 HP.

(b) Safety measures are not properly taken by TPL.

(c) The distribution costs have been increased in violation of Electricity Rules by TPL and labour charges are four times that of material cost in the estimates which are a burden on the consumer.

(d) The O&M accounts made are on imaginary basis and not based on facts. The annual accounts for 2007-08 and MYT petition projection details are example for it. TPL is misleading the public.

(e) The TPL should pay fair rent for sub station land.

(f) The cost of 33 KV lines should not be loaded on consumer which is against rules and regulations.

(g) One service to one premises is causing harassment to consumers, the service can be released basing on separate legal documents and on bonds.

(h) There should be independent agency for survey for consumer satisfaction

(i) Tariff for commercial /domestic should be on energy basis but not on demand basis upto 50 kW.

Ahmedabad Textile Mills Association –Ahmedabad, expressed that,

(a) Bhiwandi Franchisee expenses are met from TPL, full details are to be made transparent to the consumers about Bhiwandi sources of expenditure.

(b) Demand based tariff above 15 KW is highly objectionable, it shall be above 1 MW.

(c) Proposing high level of cross subsidy is against Act 2003. It shall be ± 20%.

Mr. Mukesh Kumar Bhikubhai Desai – Surat and M.B. Desai have expressed that prompt payment discount is not shown in MYT Petition and it shall be allowed as was existing in last year tariff order.

Mr. Sunil Balakrishna Oza objected to high range of Travel expenses by executives of the company, which should not be passed on to the consumers.

(a) Donations to political parties shall not be passed on to consumers, it shall be at TPL cost.

(b) Consumers shall not be burdened with very high remuneration to directors. This can be reduced and SS land rent can be increased.

Mr. V.K. Chauhan suggested that MYT Petition requires more explanation and requested for supply of a copy in Gujarat language.

Shri Ganeshbhai Ghariya, Sri Rajesh Kumar J. Purohit, Shri Balakrishna Ghariya submitted that there are certain meters running fast and consumers are forced to take demand based category.

Mr. F.C. Chauhan objected that all accounts are to be got checked by a Government body in lawful manner to avert unilateral check by Chartered Accountants of the company.

Ahmedabad Municipal Corporation-Ahmedabad, objected to the purchase of UG cables unilaterally without following corporate Governance.

TPL's Response

The TPL is acting as per guidelines and approvals of GERC. The purchase of UG cable is done on competitive and qualitative basis only.

Commission's review

All the issues raised are taken into consideration, wherever applicable, while taking decision on ARR.

2.30 SAFETY ISSUES

The Gujarat Pradesh Congress Committee, The Communist Party of India, The Consumer Protection and Action Committee have stated that TPL has not taken adequate safety measures.

TPL's Response

The safety measures are taken as per supply code and in accordance with the I.E. Rules 1956.

Commissions' view

Commission will go into the safety measures being adopted by the licensees and give appropriate direction.

Chapter 3

True up for the year 2007-08

3.1 Background

The Commission approved ARR and Tariff for the year 2007-08 for the Torrent Power Limited (TPL) in its Tariff Order dated 31st July 2007, which was based on the costs and revenues estimated by TPL, after due scrutiny. TPL furnished revised estimates for the year 2007-08 in the Multi Year Tariff Petition (MYT) for the years 2008-09, 2009-10 and 2010-11. The audited annual accounts for 2007-08 were also furnished on 31/07/2008. There are some differences between certain items of costs as well as revenues approved by the Commission with reference to the projections submitted by TPL and the actuals as per annual accounts now furnished by TPL. This chapter contains a final true up of 2007-08, based on the annual statement of accounts (actuals), and the principles and the norms approved earlier by the Commission.

3.2 Energy Demand (sales)

3.2.1 The sales projected by TPL in the ARR 2007-08, sales approved by the Commission in the Tariff Order of 2007-08 and actual sales figures now given by the TPL as per annual accounts are given in Tables 3.1 and 3.2 for Ahmedabad and Gandhinagar area & Surat supply area respectively.

Table 3.1

Energy sales – 2007-08 (Ahmedabad & Gandhinagar)

(MU)

S.N	Category / Sub-category	Proposed by TPL in ARR 2007-08	Approved by the Commission in T.O. 2007-08	Actutals as furnished in its letter dt.31.07.08 by TPL	Now approved by the Commission for True up.
1	2	3	4	5	6
1	Residential (RGP)	1307	1307	1293	1293
2	Commercial (CGP & IGP)	637	**637**	671	671
3	LTP – I	56	56	52	52
4	LTP – II	206	206	190	190
5	LTMD – I	103	103	77	77
6	LTMD-II	679	679	672	672
7	HTP-I	1290	1290	1334	1334
8	HTP-Pumping	105	105	91	91
9	Agriculture	9	9	8	8
10	GLP	7	7	7	7
11	Temporary & DoE	10	10	11	11
12	AMC & SL	78	78	86	86
13	**Total**	**4487**	**4487**	**4492**	**4492**

Table 3.2

Energy sales – 2007-08 (Surat supply area)

(MU)

S.N	Category / sub category	Proposed by TPL in ARR 2007-08	Approved by the Commission in T.O. 2007-08	Actuals as furnished in its letter dt.31.07.08 by TPL	Now approved by the Commission for True up.
1	2	3	4	5	6
1	Residential	518	518	517	517
2	Commercial	410	410	411	411
3	LTP	1555	1555	1619	1619
4	LTMD	199	199	187	187
5	HTP – I	195	195	187	187
9	HTP – II	22	22	32	32
7	GLP & St. lighting	20	20	21	21
8	Temporary	3	3	4	4
9	Agriculture	1	1	1	1
10	DOE			4	4
11	Total	2923	2923	2983	2983

The actual sale comes to 4492 MU for Ahmedabad & Gandhinagar area and 2983 MU for Surat Supply area respectively.

The Commission approves the sales for 2007-08 as furnished by TPL in column (6) of the above Tables 3.1 & 3.2 for Ahmedabad & Gandhinagar and Surat supply areas, totaling to 7475 MU (4492 MU + 2983 MU).

3.3 Distribution losses

3.3.1 The Commission in its Tariff order of 2007-08 fixed a target for distribution losses at 9.26%. TPL in its MYT Petition for the years 2008-09 to 2010-11, has furnished the estimated distribution losses for the year 2007-08 at 9.26% which is the same as approved by the Commission. Later, in its letter dated 31st July 2008 TPL furnished the actual T & D losses for 2007-08 as 8.75%.

The Commission had also, approved a transmission loss of 8 MU for the projected input of power from “SUGEN” to Ahmedabad for the year 2007-08. As there was no generation in “SUGEN” during 2007-08, no transmission loss is to be taken into consideration.

3.4 Energy requirement

The total energy requirement for TPL for both Ahmedabad & Gandhinagar and Surat areas put together is as follows for the year 2007-08, including the approved T & D losses, and as per actuals.

Table 3.3

Energy requirement now approved by the Commission for the year 2007-08

S.N	Particulars	With the approved Distribution losses of 9.26 %	With the actual Distribution losses of 8.75 %
1	Sales in Ahmedabad license area (MU)	4492	4492
2	Sales in Surat area (MU)	2983	2983
3	**Total sales (1+2) (MU)**	**7475**	**7475**
4	Distribution losses (%)	9.26	8.75
5	Distribution losses (MU)	763	717
6	Total energy requirement (3+5) (MU)	8238	8192

By achieving a loss level of 8.75 % against the approved target of 9.26 % TPL, has reduced energy requirement to the extent of 46 MU (8238 - 8192).

3.5 TPL's own generation

3.5.1 The station wise generation projected by TPL in ARR of 2007-08 from Sabarmati coal based stations, Vatva CCPP and SUGEN CCPP station, generation approved by the Commission in the Tariff Order, the actual generation now furnished by TPL and generation finally approved by the Commission for the above stations is given in Table 3.4.

Table 3.4
TPL Own Generation 2007-08

(MU)

S.N	Station	Projected by TPL in ARR 2007- 08			Approved by the Commission in T.O. 2007- 08		Actuals now supplied by TPL		Now approved by the Commission for True up	
		PLF (%)	Gross (MU)	Net (MU)	PLF (%)	Gross (MU)	PLF (%)	Gross (MU)	PLF (%)	Gross (MU)
1	2	3	4	5	6	7	9	10	12	13
A. Sabarmati Power Station (Coal based)										
1	C Station	90%	474	428	90%	474	92.07%	485.27	92.07%	485.27
2	D Station	92%	970	882	92%	970	95.46%	1006.24	95.46%	1006.27
3	E Station	90%	870	791	90%	870	99.08%	957.37	99.08%	957.37
4	F Station	93%	899	817	93%	899	101.04%	976.32	101.04%	976.32
	Total Sabarmati		3212	2918		3212		3425.20		3425.20
B	Vatva CCPP	65%	571	556	65%	571	63.03%	553.66	63.03%	553.66
C	SUGEN CCPP	-	1226	1189	-	1226	-	0	-	0
	Grand Total		**5009**	**4663**		**5009**		**3978.86**		**3978.86**

The gross generation for 2007-08, now submitted by TPL for Sabarmati and Vatva stations is accepted. However, there was no generation in SUGEN during the year 2007-08.

Accordingly, the Commission approves gross generation for the year 2007-08 from TPL own stations at 3978.86 MU. The gross generation of coal based stations with 80 % PLF would have been 2803.20 MU, against 3425.20 MU achieved by TPL with higher PLF. Hence TPL is eligible for generation incentive, according to Regulation 22 of GERC Terms and Regulations of Tariff, 2005. This is further dealt with in para 3.10.

3.5.2 Auxiliary Consumption

The auxiliary consumption proposed, approved and actuals for the 2007-08 is depicted in Table 3.5 below:

Table 3.5

Auxiliary consumption 2007-08

(%)

S.N	Station	Proposed by TPL in ARR – 2007-08	Approved by Commission in T.O. 2007-08	Actuals by TPL for 2007-08
A. Sabarmati Power (Coal based)				
1	C Station	9.76	9.35	9.41
2	D station	9.11	9.00	8.73
3	E Station	9.11	9.00	8.73
4	F Station	9.11	9.00	8.73
B	Vatva CCPP	2.60	2.60	2.92
C	SUGEN CCPP	3.00	3.00	-

It is observed that actual auxiliary consumption now reported by TPL is marginally higher in Sabarmati C Staiton and Vatva CCPP than the approved levels in the Tariff Order for 2007-08. For D, E & F stations of Sabarmati, however, the auxiliary consumption as per actuals is less than what was approved by the Commission.

In the Tariff Order 2007-08, the Commission approved the auxiliary consumption for Sabarmati "C" station and for Vatva CCPP based on the actual performance. The Commission decides to retain the auxiliary consumption for other three stations as approved in the Tariff Order 2007-08.

The net generation as per actuals works out to 3660.39 MU where as the same with approved auxiliary consumption should have been 3654.50 MU as shown in Table 3.6 below:

Table 3.6

Gross and Net Generation as per Actuals and as now approved for True up

Station	Actuals now supplied by TPL for 2007-08				Now approved by the Commission for True up.			
	Gross Generation (MU)	Auxiliary Consump-tion (%)	Auxiliary consump-tion (MU)	Net Generation (MU)	Gross Generation (MU)	Auxiliary Consum-ption (%)	Auxiliary consump-tion (MU)	Net Generation (MU)
C-Station	485.27	9.41	45.66	439.61	485.27	9.35	45.37	439.90
D-Station	1006.24	8.73	87.84	918.40	1006.24	9.00	90.56	915.68
E-Station	957.37	8.73	83.58	873.79	957.37	9.00	86.16	871.21
F-Station	976.32	8.73	85.23	891.10	976.32	9.00	87.87	888.45
Total Sabarmati	3425.20		302.31	3122.90	3425.20		309.96	3115.24
Vatva CCPP	553.66	2.92	16.17	537.49	553.66	2.60	14.40	539.26
Total	3978.86		318.48	3660.39	3978.86		324.36	3654.50

Thus, TPL has achieved an additional net generation of 5.89 MU by way of better performance in the case of auxiliary consumption.

3.6 Power purchase

3.6.1 The Commission, in its Tariff Order for the year 2007-08 approved net power purchase of 3507 MU from outside to meet the gap between the demand and the energy available from its own generating stations. TPL, now indicated in its letter dated 31st July 2008 that the actual Power Purchase during 2007-08 was 4566.05 MU.

3.7 Energy Balance

3.7.1 The details of energy requirement and availability approved by the Commission in the Tariff Order of 2007-08, and the actuals now furnished by TPL are given in Table 3.7.

Table 3.7
Energy balance – 2007-08

(MU)

S.N	Particulars	Approved by the Commission in T.O. 2007-08	Actuals by TPL now supplied vide letter dated 31st July 2008	As per the norms of distribution losses and auxiliary consumption approved by the Commission in the Tariff Order 2007-08
1	2	3	4	5
6A. Energy requirement				
1	Sales in Ahmedabad – Gandhinagar area	4487	4492	4492
2	Sales in Surat area	2923	2983	2983
3	Total sales (1+2)	7410	7475	7475
4	Distribution losses (%)	9.26	8.75	9.26
5	Distribution losses (MU)	757	717	763
6	Transmission losses on import from SUGEN (at 4.27%)	8	0*	0*
7	Total requirement	8175	8189	8238
B	Energy available			
8	Own generation (Ex-bus) (excluding sales / inadvertent flow)	4668	3660.39	3654.50
9	Power Purchase (Net)	3507	@4528.54	4584
10	**Total availability**	**8175**	**8188.93 or 8189**	**8238.50 or say 8238**

*As there is no generation from SUGEN during 2007-08, there is no transmission loss involved.

@ Excluding 37.51 MU exported.

From the above, it can be seen that TPL, by improved performance over approved norm in the case of distribution losses and auxiliary consumption, could reduce power purchase during 2007-08, to an extent of 55.46 MU.

3.8 Fuel cost

3.8.1 In its Tariff Order of 2007-08, the Commission approved the fuel cost at Rs. 861.57 Crore for a gross generation of 5009 MU. The TPL, indicated the actual fuel cost for 2007-08 at Rs. 749.81 crore for a gross generation of 3978.86 MU (Table 3.6 Col.2). The details of approved fuel cost in the Tariff Order 2007-08 and the actuals furnished by TPL are as given in Table 3.8.

Table 3.8
Fuel cost 2007-08

S.N	Station	As per Tariff Order 2007-08		As per actuals	
		Gross generation (MU)	Fuel cost (Rs. crore)	Gross generation (MU)	Fuel cost (Rs. crore)
A. Sabarmati station					
1	C Station	474	99.29	485.27	109.34
2	D station	970	140.09	1006.24	162.71
3	E Station	870	130.97	957.37	160.77
4	F Station	899	137.34	976.32	166.14
	Total Sabarmati	**3213**	**507.69**	**3425.20**	**598.96**
B	**Vatva CCPP**	**571**	**114.10**	**553.66**	**150.84**
C	**SUGEN CCPP**	**1226**	**239.78**	**0**	**0**
	Grand Total	**5009**	**861.57**	**3978.86**	**749.81**

3.8.2 The actual fuel cost intimated by TPL for 2007-08 for a gross generation of 3978.86 MU is based on calorific value and price of coal / oil as given in Table 3.9. The values given by the TPL in the MYT Petition vary from those furnished vide their letter dated 31-7-2008, in response to the clarifications sought by the Commission vide letter no. GERC / 939 / 2008 / 0839 dated 8-7-2008. The values furnished in this letter are taken into consideration, as these are the latest figures. TPL arrived at the fuel costs based on NCV of coal, but, as per the CERC Regulation 22 notified on March 26, 2004, the quantum of fuel is to be calculated on the basis of Gross Calorific value of fuel as fired.

Table 3.9
Calorific value and price of coal and oil and transit losses as per actuals as submitted by TPL for 2007- 08

s. n	Station	Wt. AV GCV of indigen-ous coal	Wt. AV NCV of indigenous coal	Wt. AV GCV of imported coal	Wt. AV NCV of Imported coal	GCV of coal (Wt Av of imported and indigenous coal) (Kcal/Kg) and gas	NCV of Coal (Wt Av of imported and indigenous coal) (Kcal/Kg)	Calorific value of oil	Price of coal excluding Transit loss		Transit loss of indigenous coal (%)	Price of oil (Rs./ MT)	Price of gas (Rs. Cr)
									Indigenous coal Rs./Mt	Imported coal Rs./Mt			
1	2	3	4	5	6	7	6	7	8	9	10	11	12
A. Sabarmati Stations													
1	C Station	5268	5012	5098	4718	5224	4936	9699	2988	3191	3.39%	21003	
2	D station	5268	5012	5098	4718	5224	4936	9699	2988	3191	3.39%	21003	
3	E Station	5268	5012	5098	4718	5224	4936	9699	2988	3191	3.39%	21003	
4	F Station	5268	5012	5098	4718	5224	4936	9699	2988	3191	3.39%	21003	
B	Vatva CCPP					8234		-	-	-		-	0.942
C	SUGEN CCPP							-	-	-		-	-

* It is reported by TPL that only indigenous coal is used for C station and for D,E and F stations a blend of indigenous and imported coal is used, in the ratio of 75:25.

When TPL was directed to furnish detailed calculations of how the values of weighted average GCV of coal (as fired) are arrived at for the year 2007-08, they came out with the plea vide letter dated 30th August 2008, that the weighted average colorific values mentioned for coal in the tariff petition for 2007-08 and in the MYT petition for the control period are NCV and not GCV and the heat rates mentioned by them for 2007-08, are also worked out based on NCV of coal and not GCV of coal. In the tariff petition for the year

2007-08, the calorific values are not very clearly specified in GCV or NCV except at one place in the submission where NCV was mentioned. On the other hand in one of the prescribed formats viz., Format-17, the figure was specified in terms of GCV.

As NCV has no relevance, universally, for arriving at the fuel costs and heat rates, the Commission would like to consider and specify the calorific values and heat rates as 'GCV' only and approve the fuel costs accordingly. However, TPL has claimed that the calorific values furnished in the Tariff Petition for 2007-08 are only NCV and the heat rates are also worked out based on NCV for earlier years also, they have also furnished plant records to this effect. The Commission for the present decides to adopt the NCV values as claimed by the TPL for calculation of fuel costs for true up purpose pending a study to be conducted and its outcome as explained in the para 3.8.3 later in this chapter.

Accordingly the Commission approves the weighted average calorific value for indigenous coal at 5012 Kcal/Kg and for imported coal at 4718 Kcal/Kg and the weighted CV average of indigenous and imported coal put together as 4936 Kcal/Kg for truing up purpose for the year 2007-08. The calorific value of gas and oil are also approved as furnished by TPL for truing up purpose for the year 2007-08. But transit loss of indigenous coal, approved by the Commission in the Tariff Order 2007-08 was 1.4%, same as that approved for Gandhinagar Station of GSECL. For the purpose of Truing up the Commission decides to adopt transit loss at 1.4% as approved in the Tariff Order 2007-08.

In its communication dated July 31st 2008, TPL showed the actual cost paid for supply of 1472013 MT of indigenous coal during 2007-08 as Rs. 42635 lakhs (excluding transit loss), which works out to Rs. 2896.37 / Mt. The quantity of imported coal supplied was 497570 MT at a cost of Rs. 15879 lakhs, which works out to Rs. 3190.71/MT. Hence for true up purpose, the cost of indigenous coal is taken as Rs. 2896.37/MT (excluding transit loss) and the cost of imported coal at Rs. 3190.71/MT.

The specific oil consumption of 1.45 gm / kWh (1.39 ml/kWh) was considered by TPL for truing up for 2007-08, which is the same as approved by the Commission in the Tariff Order 2007-08. The Commission thus approves specific oil consumption of 1.45 gm/ kWh (1.39 ml/kWh) for truing up purpose, for the year 2007-08.

3.8.3 Heat Rates

The station heat rates approved by the Commission in the Tariff Order 2007-08, actuals as furnished by TPL are given in Table 3.10.

Table 3.10
Station Heat rates 2007-08

Kcal/kWh

S.N	Station	Projection by TPL in the Tariff Order for 2007-08	Approved in T.O. 2007-08	Actuals as furnished by TPL for 2007-08
1	2	3	4	5
A. Sabarmati station				
1	C Station	3735	3735	3686
2	D station	2565	2565	2546
3	E Station	2675	2675	2671
4	F Station	2715	2715	2677
B	Vatva CCPP	2050	2050	2050
C	SUGEN CCPP		-	-

TPL, in its Tariff Petition for the year 2007-08, furnished the above heat rates and it was mentioned in the text of the petition that the values are based on NCV. But it has furnished in one of the formats (Format-17), the value of weighted average GCV of coal. In the MYT petition, for the control period 2008-09 to 2010-11, TPL has simply mentioned as CV of coal for 2007-08 actuals and the projections for the control period.

TPL was asked to furnish detailed calculations of how the values of weighted average GCV of coal (as fired) are arrived at for the year 2007-08. In reply vide their letter dated 30th August 2008, TPL asserted that the weighted average calorific values mentioned for coal in the tariff petition are NCV and not GCV and the heat rates mentioned by them for 2007-08, are also worked out based on NCV of coal and not GCV of coal. It is also stated by TPL that the heat rates worked out by them during the earlier years also were based on NCV of coal. According to TPL the heat rates for C,D,E and F stations, based on NCV and GCV of coal for 2007-08, are as shown in the Table below:

Station	Heat rates furnished by TPL for 2007-08 (Actuals)	
	Based on NCV of Coal (K.Cal/kWh)	**Based on GCV of Coal (K.Cal/kWh)**
C-Station	3686	3878
D-Station	2546	2700
E-Station	2671	2829
F-Station	2677	2837

The working out of heat rates based on NCV by TPL is not correct. The heat rate has to be worked out based on Gross Calorific Value (GCV) of coal as fired, as per CERC and GERC Regulations. Hence, calorific value of coal as fired and the corresponding heat rates for arriving at the fuel cost should be specified in terms of GCV as is the case universally.

In the Tariff Order for the year 2007-08, while approving the heat rates for different stations, the Commission mentioned as follows.

> *"with a view to establish exact correlation of SHR with age, size, technology, PLF, type and quality of fuel, Commission proposes to get a study conducted to assess the normative value of SHR, through a consultant like CEA. The study will cover old thermal units of less than 200 MW capacities in operation in Gujarat."*

Since the TPL is claiming that the Heat Rates furnished by them in the Tariff Petition for 2007-08 (which were approved by the Commission) were based on NCV and the calorific values furnished also were NCV (and not GCV) and for earlier years also, the Heat Rates are claimed to have been worked out by TPL based on NCV of fuel only, the Commission decides to get a thorough study conducted on this issue along with the other issues mentioned above.

Pending the study and its outcome, it is decided to adopt the heat rates and calorific value of fuel as approved in the Tariff Order 2007-08 for the calculation of fuel costs. After the study and its outcome, necessary review will be made.

With the approved values of gross generation, auxiliary consumption, heat rate, price of indigenous coal / Mt, price of imported coal / Mt, price of oil / Mt, price of gas / SCM, Wt. Av. CV of coal / Kg, Wt. Av. CV of oil / Kg, Wt. Av. CV of gas / Kg, Specific oil consumption

for different stations, the fuel cost for 2007-08, works out to Rs. 738.32 crore (as against Rs.749.81 crore claimed by TPL) for a gross generation of 3978.86 MU. The detailed calculations for arriving at the fuel costs are given in Annexures-1 to 5.

3.9 Power Purchase Cost

3.9.1 The Commission, in its Tariff Order for 2007-08, approved power purchase cost of Rs. 1115.23 crore for a purchase of 3507 MU from GUVNL at Rs. 3.18 / kWh according to the agreement between TPL and GUVNL approved by the Commission.

TPL mentioned that it has purchased, 4566.05 M.U, as per the letter dated 31st July 2008 during 2007-08. The purchase cost as per actuals is mentioned as 1424.59 Cr at 312 P / kWh.

Thus the Commission approves the power purchase cost of Rs. 1424.59 crore for the approved power purchase of 4566.05 MU at 312 P/kWh.

3.10 Incentive Approved / Expenses Disapproved by the Commission

3.10.1 Incentive due to higher generation over and above 80% PLF

Incentives

GERC Regulations on "Terms and Conditions of Tariff" provide for incentive in respect of generation as under:

Regulation-15: Norms of Operation: The norms of operation as given here under shall apply.

(i) Target Availability for recovery of full capacity (Fixed) charges.

(a) All thermal power generating stations – 80% recovery of capacity (Fixed) charges below target availability shall be on pro-rata basis. At zero availability no capacity charges shall be payable.

(ii) Target Plant Load Factor for incentive.

(a) All thermal power generating stations – 80%.

Regulation 22 provides the quantum of incentive.

Incentive: Incentive shall be payable at a flat rate of 25.00 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to target plant load factor.

As mentioned in para 3.5.1, TPL is eligible for generation incentive at 25 P / kWh, for the generation over and above 80% PLF in the thermal stations. This is also committed by the Commission in its letter dated 18th December 2007. The gross generation with 80% PLF for the coal based stations works out to 2803 MU whereas actual generation is 3425 MU. The additional generation due to higher PLF is thus 622 MU (3425 – 2803) which works to an incentive of Rs.15.55 crore.

3.11 Operation and Maintenance Expenses (O&M)

The Commission in the Tariff Order of 2007-08 had approved the O&M expenses for the integrated utility of TPL which includes Torrent Power AEC Ltd (TPAL), Torrent Power SEC Ltd. (TPSL) and Torrent Power Generation Ltd (TPGL). The TPL generation represents

SUGEN power project consisting of 3 units of which 2 units were expected to be commissioned during the FY 2007-08. TPL has now reported that due to factors beyond the control of TPL, SUGEN Plant is yet to be commissioned and therefore in the truing up application expenses relating to SUGEN project have been segregated from the approved ARR of TPL for the year 2007-08. These segregated expenses are taken into consideration for the truing up exercise and the expenses are discussed in the following paragraphs separately.

3.12 Employee cost

The Commission in the Tariff Order for the year 2007-08, had approved the employee cost at Rs. 131.79 crore for the year 2007-08 for the integrated utility of TPL.

3.12.1 The TPL has submitted the actual employee cost as per the Annual Accounts at Rs. 137.74 crore excluding Bhiwandi and SUGEN as against Rs. 131.79 crore approved in the ARR for 2007-08. The increase is 4.51% over the approved employee cost for the year 2007-08. The TPL has mentioned that the overall O&M expenses viz., Employee cost, A&G charges and R&M expenses have been slightly lower than the approved values.

The Commission therefore, approves the employee cost at Rs. 137.74 crore actual as per Annual Accounts for the year 2007-08.

3.13 Administration and General (A&G) expenses

3.13.1 The Commission in the Tariff Order for the year 2007-08 had approved the A&G expenses at Rs. 93.20 crore for the TPL as a whole including SUGEN power project. As the SUGEN power project has not become operational, the A&G expenses have been segregated and put at Rs. 88.07 crore for the TPL, out of Rs. 93.20 crore approved in the Tariff Order for the year 2007-08.

3.13.2 The TPL has furnished the actual A&G expenses as per Annual Accounts as Rs. 81.33 crore against Rs. 88.07 crore approved in the ARR for 2007-08. On further scrutiny of the details it is observed that the amount of Rs. 81.33 crore included donation charges of Rs. 7.20 crore. The donation charges cannot be treated as a part of A&G expenses performing to the electricity business. The Commission, therefore, disallows these donation charges of Rs. 7.20 crore claimed by TPL as part of Adm. & General charges for the year 2007-08.

The Commission, accordingly approves the A&G expenses at Rs.74.13 crore for the year 2007-08 in the review.

3.14 Repairs and Maintenance (R&M) expenses

3.14.1 The Commission in the tariff order for the year 2007-08 had approved the R&M expenses at Rs. 164.59 crore for the TPL as a whole including SUGEN power project. Since the SUGEN power project has not been operational, the segregated R&M expenses excluding SUGEN project have been given at Rs. 147.58 crore, out of Rs. 164.59 crore approved in the Tariff Order for 2007-08.

3.14.2 The TPL has submitted the actual R&M expenses as per Annual Accounts as Rs. 134.89 crore against Rs. 147.58 crore approved in the ARR for 2007-08.

The Commission, accordingly approves the R&M expenses at Rs. 134.89 crore for the year 2007-08 in the review.

3.15 Interest charges

3.15.1 The Commission had approved the interest charges at Rs. 83.09 crore in the tariff order for the year 2007-08 for the TPL including SUGEN project. As the SUGEN project has not become operational in the FY 2007-08, the approved interest on term loans has been segregated as Rs. 31.67 crore as relating to SUGEN project and the balance Rs. 51.42 crore relates to TPL (APP) and TPL – D.

3.15.2 The TPL has now furnished the actual interest charges as per Annual Accounts for the year 2007-08 as Rs. 49.54 crore against Rs. 51.42 crore for TPL other than SUGEN.

The Commission, therefore, approves the interest and finance charges at Rs. 49.54 crore for the year 2007-08.

3.16 Interest on working capital

3.16.1 The Commission had approved the interest of Rs. 64.46 crore on a working capital of Rs. 628.91 crore @ 10.25% P.A. in the tariff order for the year 2007-08.

3.16.2 The TPL has now claimed Rs. 85.45 crore towards interest on working capital of Rs. 697.59 crore @ 12.25% P.A in the review for the year 2007-08.

3.16.3 Consequent on the changes in the expenses in the review for the year 2007-08 the working capital base and the interest charges are re worked out as detailed below:

(Rs. crore)

Particulars	Norms	Amount	Working capital requirement
Fuel			
Coal	2 months	587.49	97.92
Gas	1 month	150.83	12.57
Maintenance spares	1% of historical cost	1636.77	16.37
O&M expenses	1 month	346.76	28.90
Receivables	2 months	2925.45	487.58
Working capital			643.34
Interest on working capital @ 10.25%			65.94

The working capital on which interest is allowable to the TPL on normative basis comes to Rs. 649.19 crore. In the tariff order for 2007-08 the rate of interest on working capital was adopted at 10.25%. In the review the TPL has claimed at an interest of 12.25%. Regulation 20 (v) (b) specified that 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 as on 1st April of the year in which the generating station or a unit thereof is declared under commercial operation which ever is later. In view of the above the interest charges on working capital are allowed at 10.25%.

The Commission, therefore, approves the interest on working capital at Rs. 65.94 crore on a working capital of Rs.643.34 crore in the review for the year 2007-08.

3.17 Depreciation

3.17.1 The Commission had approved the depreciation charges at Rs. 128.19 crore in the tariff order for the year 2007-08 for the TPL including SUGEN project. The SUGEN project has not become operational during 2007-08. The TPL has segregated the depreciation of Rs.

25.47 crore as pertaining to the SUGEN project. Thus the depreciation charges are given as Rs. 102.72 crore for the TPL other than SUGEN project for the year 2007-08.

3.17.2 The TPL has submitted the actual depreciation charges as per Annual Accounts as Rs. 109.90 crore against Rs. 102.72 crore for the year 2007-08 vide TPL's letter dated 31.07.2008. Rs.102.72 crores approved in the tariff order 2007-08 was estimated depreciation only whereas Rs.109.10 is actual as per annual accounts.

The Commission, therefore, approves the depreciation charges at Rs. 109.90 crore for the year 2007-08.

3.18 Return on Equity

3.18.1 The Commission had approved the return on equity at Rs. 239.70 crore in the tariff order for the year 2007-08 for the integrated utility of TPL including SUGEN power project as detailed below:

Particulars	Rs. Lakhs
Equity as on 01/04/2005	47244
Free reserves considered	77701
Capital deployed as on 01/04/2005	124945
30% of Capex financed by internal resources during 2005-06	5165
30% of Capex financed by internal resources during 2006-07	7606
Capital employed as on 01/04/2007	137716
30%of Capex proposed during 2007-08	**67002**
Capital deployed as on 31/03/2008	204718
Average of opening and closing capital employed	171217
Return @14% thereon	23970

(Source: Tariff Order 2007-08)

3.18.2 The TPL has now claimed Rs. 206.21 crore stating that equity addition on account of capital investment for TPL –G (SUGEN) has not been considered in the truing up as the plant did not get commissioned in FY 2007-08. The details are as below:

All figures in Rs. Crores	
Opening Equity as on 01.04.2007	**1375.14**
Capital addition during the year (Net of SLC)	652.10
Equity addition during the year	195.63
Closing equity as on 31.03.2008	1570.77
Average equity	1472.96
Return on Equity @14%	206.21

3.18.3 In the tariff order for the year 2007-08 the equity capital employed as on 01/04/2007 was determined at Rs. 1377.16 crore representing the equity of TPAL, TPSL and TPGL. The TPGL represents the SUGEN power project. This opening balance of Rs. 1377.16 crore includes Rs. 76.06 crore towards 30% Capex estimated for the year 2006-07. However the opening equity as on 01/04/2007 is taken by TPL as Rs. 1375.14 crore in the ARR based on the actual 30% of Capex at Rs. 74.04 crore against Rs. 76.06 crore estimated for the year 2006-07. This opening balance of equity of Rs. 1375.14 crore is taken into consideration for determining the return on equity for the year 2007-08 in the true up as detailed below:

	Rs. crore
Equity as on 01.04.2005	472.44
Free reserve considered	777.01
Capital deployed as on 01.04.2005	1249.45
30% of Capex financed by internal resources:	
2005-06 (Actual)	51.65
2006-07 (Actual)	74.04
Capital employed as on 31.03.2007	1375.14

This capital of Rs.1375.14 crore is for the TPL including TPGL i.e. SUGEN project. The original equity other than free reserves is Rs.472.44 crore as mentioned above. Out of this equity of Rs.472.44 crore, some shares were allotted to the TPGL i.e SUGEN project. TPL has confirmed, vide TPL's letter dated 16th October, 2008, that the share capital to the extent of Rs.15.13 crore has been allotted to TPGL.

Since Sugen project has not yet commissioned and as the tariff of Sugen will be determined by CERC, the Commission has not considered this Rs.15.13 crore relating to Sugen equity. The opening balance of capital employed as on 01.04.2007 is determined at Rs.1360.01 crore (Rs.1375.14-15.13 crore). The return on equity / capital employed is worked out to Rs.200.65 crore as detailed below in respect of TPL excluding SUGEN project as the same has not been commissioned during the year 2007-08. The Commission has obtained the details of capital expenditure for the year 2007-08 from TPL vide TPL's letter dated 31.07.2008. The actual capital expenditure (net of SLC) was Rs.487.87 crores against Rs.652.10 crores furnished in the ARR. This is taken into consideration for arriving at the Equity and ROE.

(Rs. crore)

1	Opening equity on 01/04/2007	1375.14
2	Less: Equity relating to TPGL (SUGEN)	15.13
3	Equity of TPL other than SUGEN	1360.01
4	Capital addition during the year 2007-08 (net of SLC)	487.87
5	Equity addition during the year (30% of capital addition)	146.36
6	Closing equity as on 31/03/2008 (3+5)	1506.37
7	Average equity	1433.19
8	Return on equity @ 14%	200.65

The Commission, accordingly approves the return on equity at Rs. 200.65crore in the review for the year 2007-08.

3.19 Provision for bad and doubtful debts

3.19.1 The Commission, in the tariff order dated 31st July 2007, had approved the provision for bad and doubtful debts at Rs. 3.00 crore for the year 2007-08.

3.19.2 The TPL had sought Rs. 6.10 crore towards provision for bad and doubtful debts in the review for the year 2007-08. The TPL has mentioned that continuous efforts are being made to recover the arrears by disconnection, following up etc. and that the money recovered is shown as and when the same is recovered. The TPL has revised the provision to Rs. 5.61 crore in its submission dated 17th June 2008.

3.19.3 According to the Tariff Regulation the reasonable and actual entitled expenditure to be recovered in the ARR included bad and doubtful debts actually written off which is subject to Commission's clearance. The TPL has not furnished any particulars or shown such evidence of write off for the year 2007-08. The Commission feels there is no justification for enhancing the provision for bad and doubtful debts in the review for the year 2007-08 as sought by the TPL.

The Commission, therefore, retains the provision at Rs. 3.00 crore for the year 2007-08.

3.20 Contingency Reserve

3.21.1 The Commission in the Tariff Order dated 31st July 2007 did not approve any amount towards contingency reserve.

3.20.2 The TPL has now requested to approve contingency reserve of Rs. 14.88 crore which was worked out at the rate of 0.5% of its gross fixed assets. The TPL has claimed that the Commission in their letter dated December 8th, 2007 agreed to consider contingency reserve in the next ARR in accordance with the regulations.

The issue of contingency reserve for the control period 2008-11 is dealt with in Chapter –4.

The Commission finds no justification to revise its decision not to provide any contingency reserve in the true up for the year 2007-08.

3.21 Income Tax

3.21.1 The Commission had considered the income tax at Rs. 43.01 crore in the tariff order for the year 2007-08.

3.21.2 The TPL has now claimed Rs. 106.18 crore in the review for the year 2007-08 in the MYT petition. TPL has explained that income tax as per applicable tax rates including surcharge of 10% and education cess of 3% has been considered at Rs. 106.18 crore so as to provide post tax regulated return of 14%. With reference to a query from the Commission, as to actuals TPL has revised the tax to Rs. 104.41 crore vide letter dated 31/07/2008.

3.21.3 The Commission notes that Regulation 66 (20) of GERC (Terms and Conditions of Tariff) Regulations, 2005 specifies that all taxes on income and profit calculated shall be on permissible return as allowed by the Commission relating to business of electricity. As per this Regulation tax is allowable on the approved return. The return on equity is determined at Rs. 200.65 crore for the year 2007-08 and the tax thereon @33.99% works out to Rs. 68.20 crore.

The recovery/ over recovery on account of tax shall be adjusted every year on the basis of income-tax assessment under the Income Tax Act as certified by statutory auditors and as per the prevailing Regulations of the GERC.

The Commission, therefore approves the provision for tax at Rs. 68.20 crore in the review for the year 2007-08.

3.22 Non tariff income

3.22.1 The Commission, in the tariff order for the year 2007-08, had approved the other income at Rs. 112.00 crore for the year 2007-08.

3.22.2 The TPL has furnished the actuals for non tariff income as per Annual Accounts at Rs. 97.60 crore for the year 2007-08.

The Commission, accordingly, approves the non tariff income at Rs. 97.60 crore for the year 2007-08.

3.23 Revenue from sale of power

3.23.1 The Commission had approved the revenue from tariff at Rs. 2795.79 crore in the Tariff Order for the year 2007-08.

3.23.2 The TPL has furnished the actual revenue from sale of power at Rs. 2935.21 crore as per the Audited Annual Accounts for the year 2007-08.

The Commission approves the sales revenue at Rs. 2935.21 crore for the year 2007-08.

3.24 Revenue Requirement

3.24.1 A summary of the review for the year 2007-08 as analyzed in the preceding Paragraphs is given in Table 3.11. The table shows overall surplus of Rs. 10.64 crores. The surplus is subject to any adjustment of actual income tax paid based on assessment. Surplus, if any, thereafter shall be shared between consumers and the licensee in accordance with the Regulations of the Commission.

Table 3.11
Annual Revenue Requirement for 2007- 08

(Rs. crore)

S.N	Particulars	Approved by the Commission in Tariff Order for 2007-08	Excluding Sugen Project for 2007- 08	As per ARR 2008 - 11	Actuals as per TPL's letter dt.31.07.2008 2007- 08	Approved by the Commission in True up
1	2	3	4	5	6	7
1	Power Purchase Cost	1115.23	1115.23	1445.37	1441.51	1424.59
2	Fuel Cost	861.57	621.79	717.64	749.81	738.32
3	Transmission Charges	4.25		0	0	0
4	Employee Cost	131.79	130.28	140.55	137.74	137.74
5	Repairs & Maintenance	164.59	147.58	139.86	134.89	134.89
6	Administration and General Expenses	93.2	88.07	78.34	81.3	74.13
7	Provision for bad and doubtful debts	3.00	3.00	5.61	5.61	3.00
8	Interest on Loans	83.09	51.42	70.86	49.54	49.54
9	Interest on Working Capital	64.46	62.21	84.81	85.45	65.66
10	Depreciation	128.19	102.72	112.07	109.9	109.9
11	Contingency Reserve			14.88	14.88	0
12	Return on Equity	239.7	206.21	206.21	202.77	200.65
13	Provision for Tax	43.01	43.01	106.18	104.41	68.20
14	**Total Revenue Requirement**	**2932.08**	**2571.52**	**3122.38**	**3117.81**	**3006.62**
15	Less: Non -Tariff Income	112.00	112.00	95.00	97.60	97.60
16	**Net ARR**	**2820.08**	**2459.52**	**3027.38**	**3020.21**	**2909.02**
17	**Add: Incentive for higher generation**			12.88	14.01	15.55
18	**ARR including incentive**	2820.08	2459.52	3040.26	3034.22	2924.57
19	Revenue from existing tariff	2795.79	0	2902.91	2935.21	2935.21
20	**Surplus / (Gap) (19 - 17)**	**-24.29**		**-137.35**	**-99.01**	**10.64**

Sabarmati C. Station (60 MW)

Sl.No.	Item	Derivation	Unit	2007-08
1	Generation (Gross)	A	MU	485.27
2	Heat Rate	B	Kcal/kWh	3735
3	Specific Oil Consumption	C	mg/kWh	1.45
4	Calorific Value of Oil	D	KCal/Kg.	9699
5	Calorific Value of Coal	E	KCal/Kg.	5012
6	Overall Heat	F=(A * B)	G. Cal.	1812483.45
7	Heat from Oil	G=(A*C*D)/1000	G.Cal	6824.62
8	Heat from Coal	H=(F-G)	G.Cal	1805658.83
9	Actual Oil Consumption	I =A*C	MT	703.64
10	Actual Coal Consumption	J=(H*1000/E)	MT	360267.13
11	Indigenous Coal including transit loss of 1.4%	J1=J*1.00/0.986	MT	365382.48
12	Imported Coal	J2=J*0.00	MT	0
13	Cost of Oil per MT	K	Rs./MT	21003
14	Cost Of Indigenous Coal Per MT	L1	Rs./MT	2896.37
15	Cost Of Imported Coal Per MT	L2	Rs./MT	3190.71
16	Total Cost of Oil	$M=I*K/10^5$	Rs. Lakhs	147.79
17	Cost of Indigenous coal	$N1=J\ 1*\ L1\ /\ 10^5$	Rs. Lakhs	10582.83
18	Cost of Imported Coal	$N2=J2\ *\ L2\ /\ 10^5$	Rs. Lakhs	0
19	Cost of Coal	N=N1+N2	Rs. Lakhs	10582.83
20	Total Fuel Cost	O = M + N	Rs. Lakhs	10730.61
21	Fuel cost / Unit Gross	O/(A*10)	Rs/KWh	2.21
22	Auxiliary consumption (percent)	P	%	9.41
23	Auxiliary consumption	Q = (A*P) / 100	MU	45.66
24	Net Generation	R = A - Q	MU	439.61
25	Fuel cost / Unit Net	O/(R*10)	Rs / KWh	2.44
	Ratio of Indigenous and Imported Coal = 1:0			

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Annexure 3.2

Sabarmati D. Station (120 MW)

Sl.No.	Item	Derivation	Unit	2007-08
1	Generation (Gross)	A	MU	1006.24
2	Heat Rate	B	Kcal/kWh	2565
3	Specific Oil Consumption	C	mg/kWh	1.45
4	Calorific Value of Oil	D	KCal/Kg.	9699
5	Calorific Value of Coal	E	KCal/Kg.	4936
6	Overall Heat	F=(A * B)	G. Cal.	2581005.60
7	Heat from Oil	G=(A*C*D)/1000	G.Cal	14151.31
8	Heat from Coal	H=(F-G)	G.Cal	2566854.29
9	Actual Oil Consumption	I =A*C	MT	1459.05
10	Actual Coal Consumption	J=(H*1000/E)	MT	520027.21
11	Indigenous Coal including transit loss of 1.4%	J1=J*0.75/0.986	MT	395558.22
12	Imported Coal	J2=J*0.25	MT	130006.80
13	Cost of Oil per MT	K	Rs./MT	21003
14	Cost Of Indigenous Coal Per MT	L1	Rs./MT	2896.37
15	Cost Of Imported Coal Per MT	L2	Rs./MT	3190.71
16	Total Cost of Oil	$M=I*K/10^5$	Rs. Lakhs	306.44
17	Cost of Indigenous coal	$N1=J\ 1*L1 / 10^5$	Rs. Lakhs	11456.83
18	Cost of Imported Coal	$N2=J2 * L2 / 10^5$	Rs. Lakhs	4148.14
19	Cost of Coal	N=N1+N2	Rs. Lakhs	15604.97
20	Total Fuel Cost	O = M + N	Rs. Lakhs	15911.41
21	Fuel cost / Unit Gross	O/(A*10)	Rs/KWh	1.58
22	Auxiliary consumption (percent)	P	%	9.00
23	Auxiliary consumption	Q = (A*P) / 100	MU	90.56
24	Net Generation	R = A - Q	MU	915.68
25	Fuel cost / Unit Net	O/(R*10)	Rs / KWh	1.74
	Ratio of Indigenous and Imported Coal = 75:25			

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Sabarmati E. Station (110 MW)

Sl.No.	Item	Derivation	Unit	2007-08
1	Generation (Gross)	A	MU	957.37
2	Heat Rate	B	Kcal/kWh	2675
3	Specific Oil Consumption	C	mg/kWh	1.45
4	Calorific Value of Oil	D	KCal/Kg.	9699
5	Calorific Value of Coal	E	KCal/Kg.	4936
6	Overall Heat	F=(A * B)	G. Cal.	2560964.75
7	Heat from Oil	G=(A*C*D)/1000	G.Cal	13464.02
8	Heat from Coal	H=(F-G)	G.Cal	2547500.73
9	Actual Oil Consumption	I =A*C	MT	1388.19
10	Actual Coal Consumption	J=(H*1000/E)	MT	516106.31
11	Indigenous Coal including transit loss of 1.4%	J1=J*0.75/0.986	MT	392575.79
12	Imported Coal	J2=J*0.25	MT	129026.58
13	Cost of Oil per MT	K	Rs./MT	21003
14	Cost Of Indigenous Coal Per MT	L1	Rs./MT	2896.37
15	Cost Of Imported Coal Per MT	L2	Rs./MT	3190.71
16	Total Cost of Oil	$M=I*K/10^5$	Rs. Lakhs	291.56
17	Cost of Indigenous coal	$N1=J\ 1*\ L1\ /\ 10^5$	Rs. Lakhs	11370.45
18	Cost of Imported Coal	$N2=J2\ *\ L2\ /\ 10^5$	Rs. Lakhs	4116.86
19	Cost of Coal	N=N1+N2	Rs. Lakhs	15487.31
20	Total Fuel Cost	O = M + N	Rs. Lakhs	15778.87
21	Fuel cost / Unit Gross	O/(A*10)	Rs/KWh	1.65
22	Auxiliary consumption (percent)	P	%	9.00
23	Auxiliary consumption	Q = (A*P) / 100	MU	86.16
24	Net Generation	R = A - Q	MU	871.21
25	Fuel cost / Unit Net	O/(R*10)	Rs / KWh	1.81
	Ratio of Indigenous and Imported Coal = 75:25			

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Sabarmati F. Station (110 MW)

Sl.No.	Item	Derivation	Unit	2007-08
1	Generation (Gross)	A	MU	976.32
2	Heat Rate	B	Kcal/kWh	2715
3	Specific Oil Consumption	C	mg/kWh	1.45
4	Calorific Value of Oil	D	KCal/Kg.	9699
5	Calorific Value of Coal	E	KCal/Kg.	4936
6	Overall Heat	F=(A * B)	G. Cal.	2650708.80
7	Heat from Oil	G=(A*C*D)/1000	G.Cal	13730.53
8	Heat from Coal	H=(F-G)	G.Cal	2636978.27
9	Actual Oil Consumption	I =A*C	MT	1415.66
10	Actual Coal Consumption	J=(H*1000/E)	MT	534233.85
11	Indigenous Coal including transit loss of 1.4%	J1=J*0.75/0.986	MT	406364.49
12	Imported Coal	J2=J*0.25	MT	133558.46
13	Cost of Oil per MT	K	Rs./MT	21003
14	Cost Of Indigenous Coal Per MT	L1	Rs./MT	2896.37
15	Cost Of Imported Coal Per MT	L2	Rs./MT	3190.71
16	Total Cost of Oil	$M=I*K/10^5$	Rs. Lakhs	297.33
17	Cost of Indigenous coal	$N1=J\ 1*L1 / 10^5$	Rs. Lakhs	11769.82
18	Cost of Imported Coal	$N2=J2 * L2 / 10^5$	Rs. Lakhs	4261.46
19	Cost of Coal	N=N1+N2	Rs. Lakhs	16031.28
20	Total Fuel Cost	O = M + N	Rs. Lakhs	16328.61
21	Fuel cost / Unit Gross	O/(A*10)	Rs/KWh	1.67
22	Auxiliary consumption (percent)	P	%	9.00
23	Auxiliary consumption	Q = (A*P) / 100	MU	87.87
24	Net Generation	R = A - Q	MU	888.45
25	Fuel cost / Unit Net	O/(R*10)	Rs / KWh	1.84
	Ratio of Indigenous and Imported Coal = 75.25			

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Vatva CCPP (100 MW)

Sl.No.	Item	Derivation	Unit	2007-08
1	Generation (Gross)	A	MU	553.66
2	Heat Rate	B	Kcal/kWh	2050
3	Calorific Value of Gas	C	KCal/SCM	8234
4	Specific Gas Consumption	D=B/C	SCM/kWh	0.25
5	Actual Gas Consumption	$E = A*D*10^6$	SCM	137843453.97
6	Cost of gas per SCM	F	Rs./SCM	10.94
7	Total Cost of Gas	$G=E*F / 10^5$	Rs. Lakhs	15082.83
8	Total Fuel Cost	H = G	Rs. Lakhs	15082.83
9	Fuel cost / Unit Gross	I=H/A*10	Rs/KWh	2.72
10	Auxiliary consumption (percent)	J	%	2.60
11	Auxiliary consumption	K = (A*J)/100	MU	14.40
12	Net Generation	L = A - K	MU	539.26
13	Fuel cost / Unit Net	M=H/(L*10)	Rs / KWh	2.80

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Chapter 4

Analysis of ARR – TPL Generation and Distribution

4.1 TPL - Generation - Ahmedabad Power Plant (APP)

TPL has existing generation capacity of 500 MW at Ahmedabad [TPL – G (APP)], which consists of 400 MW coal based thermal power plant at Sabarmati and 100 MW combined cycle gas based power plant at Vatva. This capacity caters to the needs of Ahmedabad & Gandhinagar areas of TPL to a large extent.

TPL is also in the process of establishing a 1147.50 MW combined cycle gas based power plant at village, Akhakhol, District Surat, Gujarat-TPL-G (Sugen). The generation of Sugen will serve the needs of Surat area initially and that of Ahmedabad and Inter-State later.

The performance of the generating stations - PAF, PLF, gross generation, net generation, fuel costs of TPL-G (APP) are discussed in the following paragraphs.

4.1.1 Generating Stations of Ahmedabad – TPL – G (APP) - and their performance

The capacity of each generating station, commercial operation date (COD) of each generating unit and age of each unit are given in Table 4.1 below.

Table 4.1

Capacity, COD and age of TPL – G (APP) Stations

S.N	Name of the station	Capacity (MW)	Year of COD	Age / years
A	**Sabarmati Thermal Power station (Coal based)**			
1	C Station	2X30 MW=60MW	1997*	11
2	D Station	1X120 MW	1978/2004**	30
3	E Station	1X110 MW	1984	24
4	F Station	1X110 MW	1988	20
B	Vatva duel fuel Combined Cycle Power Plant			
1	Gas turbine	2X32.5 MW	1990 & 1991	17
2	Steam turbine	1X35 MW	1991	17

* year of turbine retrofitting
** uprating of the capacity

4.1.2 Performance of Generating Stations (APP) - TPL's projections and Commission's analysis and decisions

TPL has furnished the actual performance of the stations for the year 2007-08 and projected performance for the control period, which are discussed hereunder.

4.1.2.1 Plant Availability Factor (PAF) and Plant Load Factor (PLF)

TPL has submitted the PAF and PLF for the TPL-G (APP) generating stations, actuals for the year 2007-08 and projections for the control period (2008-09 to 2010-11) as given in Table 4.2 below:

Table 4.2
Plant Availability and Plant Load Factors

(%)

Station	2007-08 (Revised Estimate)		2008-09 (Projected)		2009-10 (Projected)		2010-11 (Projected)	
	PAF	PLF	PAF	PLF	PAF	PLF	PAF	PLF
C Station	91.03	92.07	93.71	92.51	95.05	93.84	91.03	89.89
D Station	94.08	95.46	88.06	86.79	94.73	93.37	90.73	89.42
E Station	97.17	99.08	93.71	92.53	73.63	72.71	93.71	92.53
F Station	98.77	101.04	92.41	91.42	95.36	94.34	94.02	93.01
Vatva CCPP	97.35	63.03	95.68	83.54	93.81	87.97	95.63	89.23

TPL has furnished the following schedule for preventive maintenance for different units during different years, of the control period.

Table 4.3
Projected Annual Planned Maintenance Schedule

(Days)

Station	Control period		
	FY 2008-09	FY 2009-10	FY 2010-11
Sabarmati Station			
1. C Station	15	10	25
2. D Station	35	10	25
3. E Station	15	90	15
4. F Station	21	10	15
Vatva CCPP	GTG 1 – 10 GTG 2 – 10 STG - 10	GTG 1 – 22 GTG 2 – 16 STG - 15	GTG 1 – 06 GTG 2 – 22 STG - 05

For FY 2008-09, TPL mentioned that it has planned the following schedule for preventive maintenance.

a) C&E stations for 15 days for statutory (Boiler Annual Survey) and efficiency related work,

b) F station for 21 days for boiler annual overhauling and boiler & generator RLA (Residual Life Assessment) work;

c) Planned outage of D station for 35 days for carrying out Electro Static Precipitator (ESP) extension work; and

d) CCPP G Station for 10 days for both HRSG annual survey work.

For FY 2009-10 Company has stated that it planned the following schedule for preventive maintenance and up gradation.

a) For C, D & F – 10 days each for statutory (Boiler annual survey) and efficiency related work;

b) Turbine up rating work of E Unit from 110 to 120 MW for 90 days and so availability of this unit has been reduced to 73.63%;

c) For CCPP GTG 1-22 days for GT major inspection work;

d) For GTG 2: 16 days for GT Lube oil Cooler replacement; and

e) For STG: 15 days for Generator inspection work.

For FY 2010-11, the company has stated that it planned the following schedule for preventive maintenance and up gradation:

a) For E & F station – 15 days each for statutory (Boiler annual survey) and efficiency related work;

b) For C and D station – 25 days each for boiler annual overhauling and boiler RLA (Residual Life Assessment) work;

c) For GTG 1 & STG 5 days representing for miscellaneous maintenance work; and

d) For GTG 2 – 22 days for GT major inspection work

The projected PLF for Vatva CCPP for the control period is reported to be reasonably high, due to better availability of gas during the control period, compared to the year 2007-08.

Commission's view

The reasonability of PAF and PLF projected by TPL is discussed hereunder.

The actuals of PAF and PLF of the TPL –G (APP) Sabarmati stations, for the last 3 years 2005-06 to 2007-08 are as given in Table 4.4 below:

Table 4.4
PAF and PLF Actuals from 2005-06 to 2007-08

(%)

Station	2005-06		2006-07		2007-08		Average of 3 years	
	PAF	PLF	PAF	PLF	PAF	PLF	PAF	PLF
C Station	95.95	92.00	94.42	93.64	91.03	92.07	93.8	92.57
D Station	95.27	94.00	93.81	92.18	94.08	95.46	94.39	93.88
E Station	85.54	82.60	96.74	96.30	97.17	99.08	93.15	92.66
F Station		94.57	89.45	90.02	98.77	101.04	94.70	95.21

A comparison of the projection of PAF by the TPL during the control period with reference to the planned and unforced outages of the average of earlier 3 years and the remarks are given below:

C - STATION

Details	PAF	Planned and forced outages	*Remarks*
a) Average of last 3 years	93.8%	6.20%	-
b) 2008-09 Projection	93.71%	6.29%	-
c) 2009-10 Projection	95.05%	4.95%	-
d) 2010-11 Projection	91.03%	8.97%	Outages are more due to RLA work for boiler.
2. D STATION			
a) Average of last 3 years	94.39%	5.61%	-
b) 2008-09 Projection	88.06%	11.94%	Outages are more due to planned maintenance for 35 days for Electro Static Precipitator(ESP) extension work.

Details	PAF	Planned and forced outages	*Remarks*
c) 2009-10 Projection	94.73%	5.27%	-
d) 2010-11 Projection	90.73%	8.97%	Outages are more as boiler RLA work is programmed.
3. E STATION			
a) Average of last 3 years	93.15%	6.85%	-
b) 2008-09 Projection	93.71%	6.29%	-
c) 2009-10 Projection	73.63%	26.37%	Duration of outages more as R&M work for turbine uprating from 110 mW to 120 mW for 90 days is programmed.
d) 2010-11 Projection	93.71%	6.29%	-
4. F STATION			
a) Average of last 3 years	94.70%	5.30%	-
b) 2008-09 Projection	92.41%	7.59%	Outages are more as boiler and generator RLA work planned for 21 days.
c) 2009-10 Projection	95.36%	4.64%	-
d) 2010-11 Projection	94.02%	5.98%	-

The PAF projected for all the stations is in line with three years average, wherever the outage period is high, this is due to other than routine maintenance works.

The PLFs projected by the TPL for the control period are also considered and found to be in tune with the PAFs.

For Vatva gas station, however, the PAF was low during the earlier years due to non-availability of gas. TPL has projected the PAF at 95.68%, 93.81% and 95.63% for the years 2008-09, 2009-10 and 2010-11 respectively and PLF at 83.54%, 87.97% and 89.23% for the respective years. PAF and PLF projected by TPL are approved considering better availability of gas, maintenance schedule etc.

Accordingly, the PAF and PLF of the TPL –G (APP) stations are approved, as given in Table 4.5 below:

Table 4.5

PAF and PLF approved for the control period

Station	PAF			PLF		
	2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
'C' Station	93.71	95.05	91.03	92.51	93.84	89.89
'D' Station	88.06	94.73	90.73	86.79	93.37	89.42
'E' Station	93.71	73.63	93.71	92.53	72.71	92.53
'F' Station	92.41	95.36	94.02	91.42	94.34	93.01
Vatva	95.68	93.81	95.63	83.54	87.97	89.23

It is observed that the Plant Availability and Plant Load Factors of the TPL generating plant is far above the National Average of similar capacity plants as per CEA study for the year 2006-07.

4.1.2.2 Auxiliary Consumption

TPL has furnished the auxiliary consumption, actuals for 2007-08 and projections for the control period 2008-09 to 2010-11 as given in the Table 4.6 below.

Table 4.6

Auxiliary Consumption (%) – submission by TPL

S.N	Station	2007-08 (Actuals)	2008-09 (Projections)	2009-10 (Projections)	2010-11 (Projections)
	Sabarmati				
1	C Station	9.41	9.61	9.70	9.77
2	D Station	8.73	8.96	9.00	8.83
3	E Station	8.73	8.96	9.00	8.83
4	F Station	8.73	8.96	9.00	8.83
5	Vatva CCPP	2.92	3.00	3.01	3.01

TPL has claimed that auxiliary consumption for unit C is high on account of old age of the unit, and it is better than contemporary plants in the country. It has also submitted that the projected values for auxiliary consumption during the control period for all the units are far below the observed values in plants of similar size and age in the country. TPL has also submitted that the "Normative Auxiliary Consumption for smaller units other than 210 MW shall be specified by the Commission and the Commission for setting the normative rates may study past performance and performance of similar technology / size machines owned by other utilities outside the state, including CPSUs, IPPs, SEBs etc".

Commission's view

Commission in its Regulations, has specified auxiliary consumption of 9% for coal based stations of 200 MW series with cooling towers and 8.5% for those without cooling towers.

For units smaller than 210 MW, the Commission may specify auxiliary consumption separately based on past performance etc. For gas based stations, it is 1% for open cycle and 3% for combined cycle.

The issue of auxiliary consumption are discussed for Sabarmati – 'C' Station (2 x 30 MW), Sabarmati – 'D', ,'E' and 'F' Stations (110/120 MW) and Vatva CCPP Station as under.

Sabarmati – 'C' Station

In the Tariff Order for the year 2007-08 the Commission approved auxiliary consumption of 9.35% for C Station based on previous performance, capacity of the units and vintage. The auxiliary consumption for this station during the period 2002-03 to 2007-08 was as follows:

Auxiliary Consumption of 'C' - Station

(%)

2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
8.47	8.18	8.41	8.94	9.50	9.41

The auxiliary consumption during the period 2002-03 to 2005-06 varied from 8.18 to 8.94 %. There is increase during the years 2006-07 and 2007-08. Based on the past

performance auxiliary consumption of 9.41% can reasonably be maintained during the control period.

Accordingly the auxiliary consumption for 'C'- Station for the Control Period is approved as follows:

(%)

2008-09	2009-10	2010-11
9.41	9.41	9.41

Sabarmati 'D', 'E' and 'F' Stations

The generating units of TPL at 'D', 'E' and 'F' Stations are of 110 / 120 MW. There are no operational norms for the units below 200 / 210 MW either in GERC or CERC regulations. CERC regulations have however fixed some parameters for specific stations of NTPC. The auxiliary consumption parameters of TPL stations are examined with reference to previous performance of the stations and similar units in other states.

The auxiliary consumption for these stations during the period 2002-03 to 2007-08 are as follows.

Auxiliary Consumption of 'D', 'E' and 'F' - Stations

(%)

Station	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
D	8.91	9.25	9.00	8.98	8.86	8.73
E	8.91	9.25	9.00	8.98	8.86	8.73
F	8.91	9.25	9.00	8.98	8.86	8.73

The auxiliary consumption of some of the similar capacity stations in the other States are as follows:

Station	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Remarks
Bhatinda	9.62	9.62	9.54	11.00	11.00	11.00	R & M of 2 Units completed in 2007-08
KTPS Unit-5	10.38	9.92	9.77	10.16	10.30	10.09	R & M completed during 2001
KTPS Unit-6	10.13	9.94	9.66	9.87	10.24	10.12	R & M completed 2002
KTPS Unit-7	10.70	11.97	7.49	8.07	8.18	7.81	R & M completed 2004
KTPS Unit-8	10.68	10.27	7.64	8.20	8.23	7.76	R & M completed 2004
Badarpur	8.96	9.00	9.47	9.57			
Panipat	9.20	9.41	10.34	9.57			

The auxiliary consumption for Bhatinda Station varies between 9.62 % to 11 % during the period 2002-03 to 2007-08.

The auxiliary consumption of KTPS Units 5 to 8 varied from 7.49 % to 11.97 % during the period 2002-03 to 2007-08 where the units have under gone R&M.

For Badarpur, it varies from 8.96 to 9.57 % during the period 2002-03 to 2005-06.

For Panipat Station, it varies 9.20 to 10.34 % during the period 2002-03 to 2005-06.

When compared to the performance of other stations and the past performance of 'D', 'E' & 'F' Stations, the actual auxiliary consumption of 8.73 % for 2007-08 is considered reasonable. This could be maintained even during the control period.

Accordingly the Commission approves the auxiliary consumption for 'D', 'E' and 'F' Stations of Sabarmati as follows for the Control Period at the same level as in 2007-08.

FY 2008-09 8.73%

FY 2009-10 8.73%

FY 2010-11 8.73%

Vatva CCPP

The auxiliary consumption for this station during the period 2002-03 to 2007-08 is as follows:

Auxiliary Consumption of Vatva CCPP Station (%)

Station	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
G (Vatva)	3.42	2.84	2.45	2.66	2.85	2.92

As per GERC terms and conditions of tariff, 3 % is the norm for the combined cycle gas stations. The actuals from 2002-03 to 2007-08 has been below 3 %. **The Commission approves 2.92%, same as actuals of 2007-08 for the Control Period 2008-09 to 2010-11.**

As discussed above, the auxiliary consumption is approved by the Commission for various stations as in Table 4.7 below

Table 4.7

Auxiliary consumption (%) – Approved by the Commission for 2008-09 to 2010-11 for TPL –G (APP)

S.N	Station	*Projected by TPL*			Approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
	Sabarmati						
1	C Station	9.61	9.70	9.77	9.41	9.41	9.41
2	D Station	8.96	9.00	8.83	8.73	8.73	8.73
3	E Station	8.96	9.00	8.83	8.73	8.73	8.73
4	F Station	8.96	9.00	8.83	8.73	8.73	8.73
5	**Vatva CCPP**	**3.00**	**3.01**	**3.01**	**2.92**	**2.92**	**2.92**

4.1.2.3 Gross Generation

Based on the capacity of the stations, approved PLF (Table 4.5) the energy that could be generated by each station is given in Table 4.8 below.

Table 4.8
Gross generation (Approved) – TPL – G (APP) – 2008-09 to 2010-11

S. No	Station	Capacity (MW)	PLF(%)			Gross Generation (MU)		
			2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
	Sabarmati							
1	C - Station	60	92.51	93.84	89.89	486.23	493.22	472.46
2	D - Station	120	86.79	93.37	89.42	912.34	981.51	939.98
3	E - Station	110*	92.53	72.71	92.53	891.62	700.63	972.68
4	F - Station	110	91.42	94.34	93.01	880.92	909.06	896.24
	Total Sabarmati	**400**				**3171.11**	**3084.42**	**3281.36**
5	**Vatva CCPP**	**100**	83.54	87.97	89.23	**731.81**	**770.62**	781.65
	Total APP	**500**				**3902.92**	**3855.04**	**4063.01**

* Turbine to be uprated to 120 MW during 2009-10.

4.1.2.4 Net Generation

Considering the approved auxiliary consumption for each of the generation stations (Table 4.7) the net generation from each station of the TPL-G(APP) is given in Table 4.9 below:

Table 4.9
Approved Net generation – 2008-09 to 2010-11 for TPL – G (APP)

S. No	Station	2008-09				2009-10				2010-11			
		Gross Genera-tion (MU)	Auxiliary Consump-tion (%)	Auxiliary Consump-tion (MU)	Net Genera-tion (MU)	Gross Genera-tion (MU)	Auxiliary Consump-tion (%)	Auxiliary Consump-tion (MU)	Net Genera-tion (MU)	Gross Genera-tion (MU)	Auxiliary Consump-tion (%)	Auxiliary Consump-tion (MU)	Net Genera-tion (MU)
	Sabarmati												
1	C – Station	486.23	9.41	45.75	440.48	493.22	9.41	46.41	446.81	472.46	9.41	44.46	428.00
2	D - Station	912.34	8.73	79.65	832.69	981.51	8.73	85.69	895.82	939.98	8.73	82.06	857.92
3	E - Station	891.62	8.73	77.84	813.78	700.63	8.73	61.16	639.47	972.68	8.73	84.91	887.77
4	F - Station	880.92	8.73	76.90	804.02	909.06	8.73	79.36	829.70	896.24	8.73	78.24	818.00
	Total Sabarmati	3171.11		280.14	2890.97	3084.42		272.62	2811.80	3281.36		289.67	2991.70
5	**Vatva CCPP**	731.81	2.92	21.37	710.44	770.62	2.92	22.50	748.12	781.65	2.92	22.82	758.83
6	**Total APP**	3902.92		301.51	3601.41	3855.04		295.12	3559.92	4063.01		312.49	3750.52

4.1.3 Fuel (Variable) cost of TPL – G (APP)

The fuel (variable) costs for a particular level of generation depend on the following parameters.

Station Heat Rate

Transit loss of fuel, (coal) if any

Specific oil consumption

Calorific value of the fuel used

Price of fuel

These are discussed in the following paras.

4.1.3.1 Station Heat Rate

TPL has submitted the actual station heat rates for the year 2007-08 and projections for the control period as given in the Table 4.10 below.

Table 4.10

Station Heat Rate of TPL – G (APP) – Submitted by TPL

(K Cal/kW)

S.N	Station	Approved by the Commission 2007-08	Actual by TPL 2007-08	2008-09 (Projection)	2009-10 (Projection)	2010-11 (Projection)
	Sabaramati					
1	C station	3735	3686	3735	3700	3675
2	D station	2565	2546	2565	2565	2565
3	E station	2675	2671	2675	2675	2525
4	F station	2715	2677	2715	2715	2715
5	Vatva CCPP	2050	2062	2050	2050	2050

TPL has submitted that the norms considered are derived for a useful life of 25 years for coal based plants and the same cannot be extended as the units get older. It has also stated that the performance of the C station is better than most of the contemporary plants in terms of Station Heat Rate, even though, it has several other disadvantages in terms of the vintage and size. TPL has projected for D and F stations, Station Heat Rates approved by the Commission in the Tariff Order 2007-08 for the control period. For other stations TPL has projected lower heat rates for the year 2009-10 & 2010-11 as they propose to achieve higher efficiency in future.

When TPL was directed to furnish detailed calculations of how the values of weighted average GCV of coal (as fired) are arrived at for the year FY 2007-08, they came out with the plea vide letter dated 30th August 2008, that the weighted average calorific values mentioned in the tariff petition are NCV and not GCV and the heat rates mentioned by them for 2007-08 are also worked out based on NCV of Coal and not GCV of Coal. It is also stated by TPL that the heat rates worked out by them during the earlier years also were based on NCV of Coal.

Commission's View

The working out of heat rates based on NCV of coal, by TPL, is not correct. The heat rate has to be worked out based on Gross Calorific Value (GCV) of coal as fired, as per CERC and GERC regulations. Hence it is only fair to consider GCV of coal as fired and the corresponding heat rates for arriving at the fuel costs, as is the case universally.

As already discussed in para 3.8.3 of Chapter –3, the Commission has decided to get a study conducted to assess the normative values of SHR, through consultant like CEA, covering old thermal units of less than 200 MW capacities in operation in Gujarat including those of TPL at Sabarmti Power Stations.

The terms of reference to the consultant for TPL power stations shall be to establish the following among others.

i) Normative plant performance parameters such as PAF, PLF, Auxiliary consumption and specific oil consumption of all TPL stations.

ii) How do the heat rates furnished by TPL correlate with design heat rates and recommendations of CEA with regard to the operational parameters as listed in (i) based on the vintage, technology etc of the generating plant. And to establish whether the heat rates (as furnished by TPL) are based on net or gross calorific value (GCV or NCV) of coal.

iii) What would be the appropriate values of SHR on GCV basis for the thermal plant at Sabarmati based on –

   a) Major R&M activity carried out

   b) Present performance of the plant such as plant load factor, secondary fuel consumption, auxiliary consumption etc.

   c) The vintage, technology and other related factors

   d) Any other factors within or beyond the control of the power plant operation

iv) Whether the calorific value of coal furnished by TPL to GERC and other agencies are Net Calorific Value (NCV) or Gross Calorific Value (GCV) based on laboratory tests and records maintained by them.

Pending the above study and its outcome it is decided to adopt the heat rates and the corresponding calorific values and prices, as approved in the Tariff Order 2007-08 for the year 2008-09. The heat rates for 2009-10 and 2010-11 are also assumed for the timebeing as projected by TPL. A review of these values will be made after the receipt of the study report.

The issue of heat rates are discussed for Sabarmati 'C' station (2 x 30 MW), Sabarmati 'D', 'E' & 'F' stations(110 / 120 MW) and Vatva CCPP station below.

Sabarmati 'C' station

The actuals of heat rate and corresponding PLF for the years 2002-03 to 2007-08 are as follows:

PLF and Heat rates of 'C' - Station

	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
PLF(%)	83.5	89.8	85.10	92.00	93.64	92.07
Heat rate (K.Cal/KWh)	3765	3571	3630	3667	3808	3686

As stated by TPL, the above rates were worked out based on NCV of coal. The capacity of this station is 2X30MW and there are very few plants of this capacity in the country to compare the performance. A similar capacity plant at Nellore, Andhra Pradesh has been closed.

As mentioned earlier, the heat rate of 3735 Kcal/kWh for the year 2008-09 (as approved by the Commission for the year 2007-08) and 3700 Kcal/kWh and 3675 Kcal/kWh (as projected by TPL) for the years 2009-10 and 2010-11, respectively are approved for the C

Station. After the receipt of the study report, the whole issue of heat rates of TPL stations will be reviewed and appropriate corrective action will be taken.

Sabarmati 'D', 'E' and 'F' stations

The generating units of TPL at 'D', 'E' and 'F' Stations are of 110 / 120 MW capacity. There are no operational norms for plants below 200 / 210 MW Units either in GERC or CERC regulations. CERC regulations have however fixed some parameters for specific stations of NTPC. The station heat rates of TPL stations are examined with reference to previous performance of these stations and similar units in other states. The heat rates and the corresponding PLF of the stations at Bhatinda and KTPS which have similar capacity units are given for the years 2002-03 to 2007-08 in the Table below:

Heat rates of some stations (with corresponding PLF in brackets)

Station	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Remarks
Bhatinda	2865 (60.96%)	2838 (57.10%)	2899 (51.68%)	2908 (61.20%)	3000 (57.62%)	3000 (78.05%)	R & M of 2 Units completed in 2007-08
KTPS Unit-5	2482 (86.27%)	2488 (88.13%)	2513 (85.06%)	2550 (80.90%)	2673 (76.14%)	2694 (73.49%)	R & M completed during 2001
KTPS Unit-6	2413 (60.32%)	2481 (89.02%)	2495 (86.70%)	2546 (72.49%)	2660 (78.08%)	2695 (74.19%)	R & M completed 2002
KTPS Unit-7	2870 (71.00%)	3027 (35.96%)	2424 (87.05%)	2523 (72.52%)	2465 (72.81%)	2469 (85.42%)	R & M completed 2004
KTPS Unit-8	2868 (67.99%)	2902 (29.32%)	2421 (94.76%)	2553 (73.89%)	2477 (67.87%)	2476 (79.95%)	R & M completed 2004

These heat rates are based on GCV of coal.

The heat rate of Bhatinda station was in the range of 2838 to 3000 K.Cal/KWh during the above period. The heat rates of Kottagudem Units 5 to 8 before R&M and up gradation were in the range of 2868 to 3027 K.Cal/KWh and after up gradation they are in the range of 2413 to 2695 K.Cal/Kwh after R&M and up gradation.

The Heat rates with corresponding PLFs of Sabarmati 'D', 'E' and 'F' stations during the period 2002-03 to 2007-08 were as follows:

PLF and Heat rates of 'D', 'E' and 'F' - Stations

Station		2002-03	2003-04	2004-05	2005-06	2006-07	2007-08
D-Station	PLF(%)	85.90	69.50	85.90	94.00	92.18	95.46
	Heat rate (K.Cal/KWh)	2682	2616	2527	2529	2629	2546
E-Station	PLF(%)	88.90	91.40	86.70	82.60	96.30	99.08
	Heat rate (K.Cal/KWh)	2657	2598	2603	2657	2770	2671
F-station	PLF(%)	86.90	95.00	88.30	94.57	90.02	101.04
	Heat rate (K.Cal/KWh)	2646	2571	2576	2632	2732	2677

As earlier stated, the above heat rates mentioned were worked out based on NCV of coal by TPL.

The D -station was already upgraded to 120 MW and E -station is proposed to be upgraded to 120 MW during 2009-10.

As stated earlier, pending a study to be got conducted by the Commission, the heat rates as approved for the year 2007-08, in the Tariff Order for 2007-08 (as projected by the TPL)

are approved for the year 2008-09. For the year, 2009-10 and 2010-11 also, the heat rates as projected by TPL are approved as they are as per CEA norms and better than similar units in other utilities. The approved heat rates for D, E and F stations of Sabarmati are as follows for the control period.

Approved Heat Rates for 'D', 'E' and 'F' stations

(K.Cal/KWh)

Station	2008-09	2009-10	2010-11
D – Station, (Which had undergone R & M.)	2565	2565	2565
E – Station, (Which has to undergo R & M in 2009-10.)	2675	2675	2525
F-Station, (For which no R & M is planned during Control Period.)	2715	2715	2715

To a query from Commission TPL provided vide letter no. nil dated 4th October 2008 the design heat rates of various units at Sabarmati TPS which are as below:

Station	Capacity	Design heat rates on GCV/HCV (K.Cal./kWh)
D-Station	1x120	2339
E-Station	1x110	2538
F-Station	1x110	2538

The design heat rates on all HCV (High Calorific value) are 2538 and 2339 K.Cal. /kWh for110 MW and 120 MW units respectively. The figures of SHRs reported so far during 2007-08 onwards for these units 2677 and 2546 for 110 and 120 MW respectively and are 5.5% and 8.9% higher than the design values on HCV basis.

However, since TPL is claiming that these figures of SHR are based on NCV. Hence, the coal requirement has been worked out by dividing 2677 and 2546 with NCV figure (in the range of 4936 to 5012) that is about 5150 K.Ca./kg, instead of GCV figure (in the range of about 5400 to 5664 K.Cal/kg) that is 5660 K.Cal/kg. Thus the quantity of coal now worked on the above basis would be corrected subject to the report of study by CEA and at the time of Annual Performance Review.

The whole issue of heat rates will be reviewed after the outcome of the study to be conducted covering all aspects of fuel costs and appropriate corrective action will be taken.

Vatva CCPP

For Vatva CCPP, the SHR was approved by the Commission for 2007-08 is on higher side (2050 Kcal/kWh), against the designed heat rate is 1910 Kcal/kWh, as the plant was operating at lower capacity due to gas supply being 80% of required quantity. It is expected, that the PLF for the control period will be more than 80%, with better gas supply position. The Commission considers, station heat rate of 1950 Kcal/kWh, as per GERC norm for the control period 2008-09 to 2010-11 against 2050 Kcal/Kwh projected by them as it is a new plant and will be operating at a PLF of more than 80 %.

Accordingly, the Commission approves station heat rate of 1950 Kcal/kWh for Vatva CCPP for the control period 2008-09 to 2010-11.

4.1.3.2 Transit loss of coal

TPL has indicated the transit loss of coal as 3.5% for the control period 2008-09 to 2010-11. It has mentioned that that the high transit loss is due to long distance involved in transport of indigenous coal and related windage, seepage, evaporation, pilferage and theft during transportation and other natural factors. The high loss is also attributed to the in accuracy of weighing measures at the mine head.

Commission's view

The Commission has specified in the tariff regulations, transit loss of coal in transport as follows.

- Pit head stations - 0.3%
- Non pit head stations - 0.8%

Transit loss is applicable only for indigenous coal.

Though regulations specify the transit loss at 0.8% for non-pit head stations, in view of the long distance involved in transport and other constraints, the Commission has dealt this in detail in the tariff order for 2007-08 and approved the transit loss at 1.4% as was allowed for Gandhinagar station of GSECL; which also obtains coal from the same source.

At present the scope available to TPL to reduce transit loss of coal appears to be limited as both the Coal India and Indian Railways are monopolies and have not been willing to consider commercially feasible solutions in order to bring down the losses.

Considering the various aspects, the Commission allows transit loss of 1.4% for the indigenous coal, for the control period.

The Commission feels that with more efforts and proper coordination with coal India and Indian Railways, TPL should try to reduce the transit loss of Indigenous coal to the norm of 0.8% in a span of 5 years, i.e. by 2013-14.

The Commission allows the transit loss for indigenous coal at 1.4% for the control period, at the same level as in 2007-08 for the reasons mentioned above.

No transit loss, however, is allowed for the imported coal.

4.1.3.3 Specific Oil Consumption

TPL projected specific oil consumption of 1.45 grams for KWh (1.39 ml per KWh) for all the stations of Sabarmati.

Commissions View

The specific oil consumption, according to the norms of the Commission is 2 ml/KWh (i.e.) 2.08 grams/KWh. Though the specific oil consumption projected by TPL for the control period is only 1.45 grams/KWh which is within the norm of the Commission, in view of the high PLF at which the units operate, the consumption is compared to the performance of other similar units.

The specific oil consumption of some of the similar units in the country with the corresponding PLF are as follows

Specific Oil Consumption of some other stations (with PLF in the brackets)

(ml/KWh)

Station	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	Remarks
Bhatinda	1.50 (60.96%)	1.50 (57.10%)	1.65 (51.68%)	2.00 (61.20%)	3.50 (57.62%)	3.50 (78.05%)	R & M of 2 Units completed in 2007-08
KTPS Unit-5	1.48 (86.27%)	1.24 (88.13%)	0.69 (85.06%)	0.74 (80.90%)	1.25 (76.14%)	0.64 (73.49%)	R & M completed during 2001
KTPS Unit-6	2.27 (60.32%)	0.70 (89.02%)	0.82 (86.70%)	0.82 (72.49%)	1.02 (78.08%)	0.68 (74.19%)	R & M completed 2002
KTPS Unit-7	2.38 (71.00%)	3.22 (35.96%)	1.39 (87.05%)	1.50 (72.52%)	1.59 (72.81%)	0.82 (85.42%)	R & M completed 2004
KTPS Unit-8	2.54 (67.99%)	2.93 (29.32%)	1.76 (94.76%)	1.71 (73.89%)	2.21 (67.87%)	1.66 (79.95%)	R & M completed 2004

As can be seen above, the specific oil consumption of the Sabarmati stations projected at 1.39 ml/KWh is comparable to the similar stations in the country, though the performance is better in some stations after R&M and up gradation.

The actuals for the years 2005-06 to 2007-08 for the Sabarmati stations was also stated to be 1.39 ml/KWh only.

The specific oil consumption of 1.39 ml/kWh (1.45 grams / kWh) is approved as projected by TPL for all the years during the control period 2008-09 to 2010-11. This is the same as approved in the Tariff Order 2007-08 for the year 2007-08.

4.1.3.4 Other fuel inputs like calorific value of fuel, cost of coal, cost of oil, cost of gas etc to arrive at fuel cost is discussed below.

TPL projected the other inputs to arrive at the fuel cost parameters for the control period, as mentioned in the Table 4.11 below.

Table 4.11

Projected fuel cost parameters for the control period 2008-09 to 2010-11 for TPL – G (APP)

S.N	Station	Ratio of indigenous coal & imported coal	Wt. Av. CV of coal (Kcal/kg)		Wt. Av. CV of oil (Kcal/kg)	Wt. Av. Cost of indigenous coal Rs. / MT	Wt. Av. Cost of imported coal Rs. / MT	Cost of oil Rs./Mt	Wt. Av. CV of gas Kcal/SCM	Wt. Av. Cost of gas Rs./SCM
			Indigenous	Imported						
A	Sabarmati									
1	C Station	100:0.00	5236	4929	9766	2757	3035	18053		
2	D station	65.35	5236	4929	9766	2757	3035	18053		
3	E station	65.35	5236	4929	9766	2757	3035	18053		
4	F station	65.35	5236	4929	9766	2757	3035	18053		
5	Vatva CCPP	-	-	-	-	-	-	-	8305	8.095 or Rs.243.88 MMBTU

Note: As discussed earlier the colorific value of coal is net value.

Commission's view

As already stated, pending the study to be conducted, all the fuel cost parameters, including (1) the mix of indigenous and imported coal (2) Wt Av CV of coal and oil (3) Cost of coal and oil per MT as approved in the Tariff Order for 2007-08, will apply for the control period also.

For Vatva gas station, however, the gas cost for the control period is worked out based on the cost of gas / MMBTU. The cost of gas /MMBTU as per the parameters approved in the 2007-08 order, works out to Rs. 243.88/MMBTU (or Rs.8.095/SCM) and the same will apply for the control period also.

Thus, the other inputs required to arrive at fuel cost approved by the Commission for the control period 2008-09 to 2010-11 are given in Table 4.12 below.

Table 4.12

Approved fuel cost parameters for the control period 2008-09 to 2010-11 for TPL – G (APP)

S.N	Station	Ratio of indigenous coal	Wt. Av. CV of coal (Kcal/kg) (Imported and indigenous) *	Wt. Av. CV of oil (Kcal/kg)	Wt. Av. Cost of indigenous coal Rs. / MT	Wt. Av. Cost of imported coal Rs. / MT	Cost of oil Rs./Mt	Cost of gas (Rs/ SCM)
A	Sabarmati							
1	C Station	72:28	5150	9766	2757	3035	18053	
2	D station	72:28	5150	9766	2757	3035	18053	
3	E station	72:28	5150	9766	2757	3035	18053	
4	F station	72:28	5150	9766	2757	3035	18053	
5	Vatva CCPP	-						8.095

Note: As discussed earlier the colorific value of coal is net value.

4.1.3.5 Fuel Costs

The fuel costs worked out based on the approved parameters are as follows.

Year	Gross generation (MU)	Net generation (MU)	Fuel cost (Rs.crore)
2008-09	3902.92	3601.41	641.51
2009-10	3855.04	3559.92	634.93
2010-11	4063.01	3750.52	656.94

Pending the outcome of the study and review of the heat rates etc of the stations and any variation in the CV of coal, gas and oil and the costs of coal, oil and gas could be claimed by TPL under approved FPPPA.

The detailed calculations of these fuel costs are given in Annexures 1 to 5 of this chapter.

4.1.4 Fixed cost elements (TPL (G) – APP)

The fixed costs include

- O&M expenses
- Interest on loan capital
- Interest on working capital
- Depreciation
- Return on Equity
- Tax on income

4.1.5 Operation and Maintenance (O&M) expenses

The O&M expenses comprise Employee expenses, Repair and Maintenance (R&M) expenses and Administration and General (A&G) expenses. The TPL has submitted that O&M expenses should be determined after giving due consideration to vintage and small capacity sizes of the generating units. TPL has explained that exceptional items which are one time in nature and expenses under capitalization have been excluded from the base providing for escalation and have been added separately to arrive at the projections and that TPL has taken into consideration the need to provide the highest feasible availability and loading factor that ensures reliable and efficient generation at optimal costs.

These O&M expenses viz. Employee expenses, R&M expenses and A&G expenses are separately discussed in the following paras.

4.1.6 Employee expenses

The employee expenses include salaries, dearness and other allowances, ex-gratia, contribution towards terminal benefits, leave encashment, staff welfare expenses etc.

4.1.6.1 The TPL has projected the employee expenses for the control period as detailed in the Table 4.13 below.

Table 4.13
Employee expenses projected for the control period 2008-11

(Rs. crore)

S.N	Particulars	2007-08 (RE)	Control period		
			2008-09	2009-10	2010-11
1	Salary, wages and Bonus	47.14	51.86	57.04	62.74
2	Provision for VRS	-	16.19	-	-
	Total employee cost	47.14	68.04	57.04	62.74

The TPL has projected the employee cost with 10% increase per annum over 2007-08 (RE) during the control period of 3 years 2008-11 attributing the increase to inflation, induction of new employees and other expenses incurred to strengthen human resource to meet the emerging challenges. Apart from the above 10% escalation the TPL has included a special provision of Rs. 16.19 crores for the year 2008-09 i.e the first year of control period towards Voluntary Retirement Scheme (VRS).

4.1.6.2 The Commission has obtained the employee cost actuals for the year 2007-08 for determining the costs of the base year for the control period in accordance with Regulation 4.2(c) of Multi Year Tariff Frame Work Regulations, 2007. The employee cost (actual) for 2007-08 as furnished by TPL in their letter dated July 31, 2008 in respect of TPL – G (APP) is detailed in the Table 4.14 below.

Table 4.14
Employee cost of APP 2007-08 (Actuals)

S.N	Particulars	Rs. crore
1	Salary, wages and bonus	53.43
2	Less: Allocated to Maintenance Repairs and Capital Expenditure	18.16
3	Salary, wages and bonus (Net of allocation)	35.27
4	Staff welfare	3.09
5	Leave encashment	8.53
6	Gratuity	-
	Employee cost (Net)	46.89

4.1.6.3 As already mentioned in para 4.1.6.1, the TPL has projected the employees expenses with 10% escalation per annum during the control period of 3 years and included a special provision of Rs. 16.19 crores for the year 2008-09 towards Voluntary Retirement Scheme (VRS) which is one time in nature.

The TPL has stated that in its endeavour to achieve reduction in operating cost, the petitioner has decided to reduce the number of employees both through normal attrition and separation under a Voluntary Retirement scheme for which special provision of Rs. 16.19 crore has been claimed for implementation in FY 2008-09. TPL has mentioned that the Commission had allowed 5% increase in the Tariff Order of 2007-08 over the actual employee expenses of 2006-07 against TPL's proposal of 20% increase. TPL has further submitted that any disallowance of projected employee cost would make it difficult for TPL (G) (APP) to recruit and retain skilled professionals and requested that the proposal be approved as projected.

4.1.6.4 The Commission has examined and analyzed the actual employee cost of TPL (generation and distribution) for the period 2004-05 to 2007-08. The details are given in Table 4.15 below.

Table 4.15

Employee cost of TPL 2004-05 to 2007-08 (Actuals)

(Rs. crore)

S. N	Particulars	2004-05 (Actual)	2005-06 (Actual)	2006-07 (Actual)	2007-08 (Actual)	CAGR (%)
1	Salaries, wages and bonus (Gross)	161.10	154.34	150.80	169.00	1.59
2	Less: Allocated to maintenance & repairs and capital expenditure	45.00	49.23	54.97	63.71	12.16
3	Salary, wages and bonus (Net)	116.10	105.11	95.83	105.29	(3.17)
4	Staff welfare	6.06	6.28	9.55	8.92	13.59
5	Leave encashment	18.39	14.36	10.20	23.53	8.47
6	Gratuity	8.85	7.10	9.93	-	
7	Employee cost (Net of capitalization)	149.40	132.85	125.51	137.74	

It could be seen from the above table there is an increase of about 2% in the gross employee cost during the period 2004-05 to 2007-08. The TPL has projected 10% increase per annum under this head. The Commission feels there is no justification for 10% escalation per annum in the employee cost during the control period. It is observed generally the annual increase in most of the utilities is about 5 to 6%. A 6% increase per annum over the actual employee cost of Rs. 46.89 crores as per the audited annual accounts for the year 2007-08 is considered reasonable towards sanction of normal increment, increase in DA, other allowances and inflation.

Regarding one time provision of Rs. 16.19 crore claimed by TPL towards Voultnary Retirement Scheme in the first year 2008-09 of the control period the Commission has obtained the salient features of VRS which is proposed to be implemented in 2008-09. The TPL in its letter dated October 13, 2008 has intimated that TPL –G has a cadre strength of about 1566 including unskilled, semi skilled, skilled, supervisors, trainees and officers. The VRS aims at reducing surplus man power, improve efficiencies and optimize the utilisation of human resources. It is stated that applications under VRS are being invited in the month of October – Novermber 2008 and expected that about 500 employees will avail the benefit of the scheme.

Receiving applications and scrutiny and finalisation would take considerable time. The initial commitment may be more on the part of utility / licensee but the benefits of shedding the over weight of human resources would ultimately benefit the consumers at large in the long run. Since the VRS is not finalised, the Commission takes a view that the scheme will be considered on implementation by TPL in the performance review for the year 2008-09 based on the actual expenditure as certified by the C.A. The TPL has to furnish the list of beneficiaries of the scheme with all the details of names with the cadres and the amounts sanctioned at that time.

The employee cost with 6% escalation on the actuals for 2007-08 during the control period are worked out as given in the Table 4.16 below.

Table 4.16
Employee cost of TPL-G (APP) approved for the years 2008-09, 2009-10 and 2010-11

Rs. crores

Particulars	2007-08 (Actual)	Control period		
		2008-09	2009-10	2010-11
Employee expenses	46.89	49.70	52.69	55.85

The Commission, accordingly, approves the employee expenses at Rs. 49.70 crore for the year 2008-09, Rs. 52.69 crore for the year 2009-10 and Rs. 55.85 crore for the year 2010-11.

4.1.7 Repair and Maintenance (R&M) expenses of TPL-G (APP)

The R&M expenses include expenses on repairs and maintenance of plant and machinery, buildings, other civil works, vehicles, furniture and fixtures, office equipment etc.

The TPL has projected the R&M expenses for the control period as detailed in the Table 4.17 below.

Table 4.17
R&M expenses projected for the control period 2008-11

(Rs. crore)

Particulars	2007-08 (RE)	Control period		
		2008-09	2009-10	2010-11
1. Regular R&M (Sabarmati and Vatva plants)	36.69	39.63	42.80	46.22
2. One time CCPP spares	-	-	14.25	4.50
Total	**36.69**	**39.63**	**57.05**	**50.72**

The TPL has explained that repairs and maintenance expenses have been projected considering the past trends and anticipated repairs and maintenance activities. The TPL has projected the repair and maintenance expenses with an annual escalation of 8% on the base year expenses. TPL has also included additional expenses of Rs. 14.25 crores in FY 2009-10 and Rs. 4.50 crore in FY 2010-11 towards CCPP spares and major overhauling at Vatva station on one time basis. TPL has explained that R&M expenditure would be relatively high due to the small size and age of the units and are required to maintain the high level of efficiency in the operating parameters of the station and requested the Commission to approve the R&M expenses as projected.

4.1.7.1 The Commission has obtained the actual R&M expenses for the year 2007-08. As furnished by the TPL in their letter dated 31/07/2008 the actual expenditure under the R&M is Rs. 40.82crore.

4.1.7.2 The Commission has analyzed the actual R&M expenditure for the years 2004-05 to 2007-08. The year wise repairs and maintenance expenses (actuals) under generation function (APP) are given in the Table 4.18 below:

Table 4.18

R&M expenses from 2004-05 to 2007-08 (Actuals)

(Rs. crore)

Particulars	2004-05	2005-06	2006-07	2007-08
R&M expenses	53.41	34.14	55.68	40.82

The decrease in R&M expenditure must be due to planned capital and renovation and modernization works being carried out by TPL. The Commission had approved 8% increase in the tariff order for 2007-08. The TPL has proposed Rs. 210.87 crore of capital expenditure during the control period 2008-11 which include over hauling and up gradation. The R&M expenses should gradually reduce during the control period as a result of the proposed capital expenditure. This is a controllable expenditure. The Commission considers as reasonable annual increase of 6% during the control period over the actual R&M expenditure of Rs. 40.82 crore as per the audited annual accounts for the year 2007-08.

As regards one time CCPP spares the TPL has furnished the details in letter dated October 4, 2008. TPL has stated that internal components of gas turbine are required to be replaced at specified Equivalent Operating Hours (EOH) as specified by the Original Equipment Manufacturer depending upon the type of fuel used and start up / shut down of the units. The spares are required for (A) GT 1 (B) Steam Turbine control system during the year 2009-10 and spares for GT –2 during 2010-11.

The Commission, accordingly approves the special provision for CCPP spares as projected by TPL. The TPL is required to furnish the details on obtaining and utilisation of these spares. These spares need to be accounted for separately.

The R&M expenses with the above increase of 6% escalation over the actuals for 2007-08 during the control period and special provision for CCPP spares are worked out as given in the Table 4.19 below:

Table 4.19
R&M expenses approved for the control period 2008-09

(Rs. crore)

Particulars	2007-08 (Actual)	Control period		
		2008-09	2009-10	2010-11
1.R&M expenses	40.82	43.27	45.87	48.62
2. One time CCPP spares	-	-	14.25	4.50
Total	40.82	43.27	60.12	53.12

The Commission accordingly, approves the R&M expenses (including procurement of CCPP spares) at Rs. 43.27 crore for the year 2008-09. Rs. 60.12 crore for the year 2009-10 and Rs. 53.12 crore for the year 2010-11.

4.1.8 Administration and General (A&G) expenses

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

4.1.8.1 The TPL has projected the A&G expenses for the control period as detailed in the Table 4.20 below:

Table 4.20
A&G expenses projected for the control period 2008-11

(Rs. crore)

Particulars	2007-08 (RE)	Control period		
		2008-09	2009-10	2010-11
A&G expenses	23.73	24.92	26.16	27.47

The TPL has projected the A&G expenses considering 5% escalation P.A. over the A&G expenses 2007-08 RE to provide for the inflationary increase in the expenses.

4.1.8.2 The Commission has obtained the A&G expenses actuals for the year 2007-08 as per annual accounts.

The TPL has furnished the actual A&G expenses at Rs. 22.87 crores for the year 2007-08 as detailed in the Table 4.21 below:

Table 4.21
A&G expenses actuals for the year 2007-08

S.N	Particulars	Rs. crores
1	Insurance	8.35
2	Legal & professional charges	0.51
3	Auditor's remuneration	0.05
4	Director's fees	0.05
5	Loss on sale of fixed assets	-
6	Misc. expenses	6.80
7	Printing & stationery	0.29
8	Rent, Rates & Hire charges	1.95
9	Consumable stores	2.70
10	Bill collection charges	-
11	Advertisement	0.21
12	Donation	1.96
	Total	**22.87**

4.1.8.3 The Commission has analysed the A&G expenses (generation and distribution) for the years 2004-05 to 2007-08. The year wise expenses were Rs. 80.18 crore in 2004-05, Rs. 88.99 crore in 2005-06, Rs. 100.73 crore in 2006-07 and Rs. 81.33 crore in 2007-08.

On analyzing the A&G expenses it is observed that the actual A&G expenses of Rs. 22.87 crore during the year 2007-08 included Rs. 1.96 cores towards donation charges. As mentioned in para 3.13.2 of this order the donation charges cannot be considered as a legitimate charge of the electricity business. The Commission

therefore disallows these donation charges of Rs. 1.96 crores claimed by TPL as part of A&G expenses for the year 2007-08 and determines the actual A&G charges at Rs. 20.91 crores for the base year 2007-08. A&G expenses are controllable expenditure and the Commission determines 6% escalation P.A. over the actual expenses for the year 2007-08 during the control period 2008-11 and are worked out as given in the Table 4.22 below.

Table 4.22

A&G expenses as approved by the Commission for the control period 2008-11

(Rs. crore)

Particulars	2007-08 (Actual)	Control period		
		2008-09	2009-10	2010-11
A&G expenses	20.91	22.16	23.49	24.90

The Commission, accordingly approves the A&G expenses at Rs. 22.16 crore for the year 2008-09, Rs. 23.49crore for the year 2009-10 and Rs. 24.90 crore for the year 2010-11.

The annual increase of 6% approved for O&M expenses is in line with 5.17% increase indicated by CERC (Terms and Conditions of Tariff) Regulations 2008 (Draft)

4.1.9 Capital expenditure

The TPL has projected Rs. 210.87 crore towards capital expenditure during the control period 2008-11. The details are given in the Table 4.23 below.

Table 4.23

Capital expenditure projected for the control period 2008-11

Rs. crore

S.N	Particulars	2008-09	2009-10	2010-11
1	E Station upgradation	20.00	85.00	-
2	ESP field extension, overhauling of existing ESP, control replacement, Ash handling system extension	20.00	-	-
3	Pollution control scheme	2.05	7.95	-
4	Renovation of down stream conveyor from existing crusher house to D,E & F station Bunkers	-	6.25	7.50
5	Construction of new cooling towers	-	2.00	8.00
6	Normal Capex – Sabarmati	19.29	12.08	12.54
7	Normal Capex - Vatva	3.05	2.03	3.13
	Total	**64.39**	**115.31**	**31.17**

The TPL has mentioned that the company operates the generating plant with very high PAF and PLF and this has been possible on account of effective preventive maintenance as well as up gradation / modernization of plants. TPL has further stated that it is planning to carryout major over hauling and uprating of Sabarmati E unit by 10 MW in the first control period at a cost of Rs. 105 crore of which Rs. 20 crore is expected to be utilized in FY 2008-09 and the balance Rs. 85 crore in FY 2009-10. The capital expenditure, sources of funding and capitalization proposed by TPL are given in the Table 4.24 below:

Table 4.24

Capital expenditure and source of funding for the control period 2008-11

Rs. crore

S.N	Particulars	2008-09	2009-10	2010-11
1	Planned capital expenditure	64.39	115.31	31.17
2	Proposed capitalisation	42.34	136.61	33.17
3	Sources of funding			
	Debt	29.64	95.63	23.22
	Equity	12.70	40.98	9.95

Out of the proposed capital expenditure of Rs. 210.87 crore during the control period about Rs. 105 crore is towards Sabarmati E station uprating and the balance is towards routine Capex, pollution control, over hauling etc.

The Commission approves the capital expenditure indicated in Table 4.23 as proposed by the TPL for the control period.

The actual capitalization of expenditure on major items such as E-station upgradation, ESP field extension, overhauling of existing ESP etc., on re-commissioning of the plant duly certified by the safety inspector.

4.1.10 Interest on term loan

4.1.10.1 The TPL has projected Rs. 63.93 crore towards interest on term loans during the control period as detailed in the Table 4.25 below for the control period.

Table 4.25

Interest charges projected for the control period 2008-11

(Rs. crore)

S.N	Particulars	2008-09	2009-10	2010-11
1	Interest on existing loans	1.70	1.12	0.53
2	Interest on new loans	13.61	23.72	23.25
	Total interest cost	15.31	24.84	23.78

4.1.10.2 The TPL has stated that a long term loan of Rs. 25 crores with an interest rate of 8.17% is outstanding at the beginning of the first control period and the loan is repayable by the end of 2011-12. TPL has further submitted that while projecting the interest expenses on existing loans, a due diligence has been carried out on the loans borrowed in the past years and the cumulative additional borrowings till 31st March 2007 from 1st April 2005 have been normatively adjusted to 70% of cumulative capitalisation during that period. It has been further stated that the normative additional loan of Rs. 85.57 crore on account of the lesser borrowing with respect to the cumulative additional capitalization of Rs. 122.24 crore

is assumed to be serviced at the terms of existing loans. TPL has assumed the interest rate of 12% and repayment in seven years inclusive of one-year moratorium. The additional borrowings during the control period and interest expenses on the new loans have been proposed on the basis of capitalization during the year. TPL has assumed 12% interest rate and repayment in 24 quarterly installments with a moratorium of one year.

4.1.10.3 The TPL has included Rs. 85.57 crore as normative additional loan on account of lesser borrowing during the earlier years and included the interest charges on this normative loan. The Commission has carefully examined this and does not agree for the normative adjustment of cumulative additional borrowings. Regulation 20 (i) (b) of GERC (Terms and Conditions of Tariff) Regulations, 2005 specifies that in the case of existing projects, the actual debt equity shall be used for tariff determination and interest on loans shall be paid at actuals. Accordingly the interest on actual loans outstanding as on 01/04/2008 and the additional borrowings in accordance with the approved sources of funding the new capital expenditure could be considered for the purpose of allowing interest charges.

The TPL has, in its letter dated October 16, 2008, submitted information on interest cost for the first MYT control period on the basis of actual borrowing for the FY 2007-08 and borrowing till 16/10/2008 for the year 2008-09. TPL has clarified that it has not claimed any normative loans as mentioned at para 4.97 (P.58) and at para 6.130 (P. 102) of MYT petition for its distribution and generation business. It is further clarified that normative loans of Rs. 158.68 crore and Rs. 85.57 crore mentioned at para 4.98 and para 6.131 of MYT Petition are replaced with the actual loans drawn during the year and accordingly submitted the revised data on 16/10/2008. In the revised data TPL has claimed Rs. 53.85 crore towards interest charges on term loans on the basis of loans actually drawn during 2007-08 and 2008-09 (upto 16/10/ 2008) and proposed to be drawn during the control period as detailed in the Table 4.26 below.

Table 4.26
Interest charges claimed by TPL as per the revised data submitted by TPL in letter dated 16/10/2008

(Rs. crores)

Particulars	2007-08	2008-09	2009-10	2010-11
IDFC-Term Loan 1				
Gross loan – Opening	50.00	0.00	0.00	0.00
Cumulative repayments of loans upto previous year	39.47	0.00	0.00	0.00
Net loan – Opening	10.53	0.00	0.00	0.00
Increase / Decrease due to FERV				
Increase / Decrease due to ACE				
Total	10.53	0.00	0.00	0.00
Repayments of loans during the year	10.53			
Net loan – Closing	0.00	0.00	0.00	0.00
Average Net loan	5.27	0.00	0.00	0.00
Rate of interest on loan	7%	7%	7%	7%
Interest on loan	0.43	0.00	0.00	0.00
IDFC-Term Loan 2				
Gross loan – Opening	50.00	50.00	50.00	50.00

Particulars	2007-08	2008-09	2009-10	2010-11
Cumulative repayments of loans upto previous year	17.86	25.00	32.14	39.29
Net loan – Opening	32.14	25.00	17.86	10.71
Increase / Decrease due to FERV				
Increase / Decrease due to ACE				
Total	32.14	25.00	17.86	10.71
Repayments of loans during the year	7.14	7.14	7.14	7.14
Net loan – Closing	25.00	17.86	10.71	3.57
Average Net loan	28.57	21.43	14.29	7.14
Rate of interest on loan	8.17	8.17	8.17	8.17
Interest on loan	3.06	1.70	1.12	0.53
Total loan				
Gross loan – Opening	100.00	50.00	50.00	50.00
Cumulative repayments of loans upto previous year	57.33	25.00	32.14	39.29
Net loan – Opening	42.67	25.00	17.86	10.71
Increase / Decrease due to FERV	0.00	0.00	0.00	0.00
Increase / Decrease due to ACE	0.00	0.00	0.00	0.00
Total	42.67	25.00	17.86	10.71
Repayments of loans during the year	17.67	7.14	7.14	7.14
Net loan – Closing	25.00	17.86	10.71	3.57
Average Net loan	33.84	21.43	14.29	7.14
Rate of interest on loan				
Interest on loan	3.49	1.70	1.12	0.53
Additional loans				
Gross loan – Opening	0.00	100.00	100.00	195.63
Cumulative repayments of loans upto previous year	0.00	0.00	2.50	12.50
Net loan – Opening	0.00	100.00	97.50	183.13
Increase / Decrease due to FERV				
Addition	100.00	0.00	95.63	23.22
Total	100.00	100.00	193.13	206.35
Repayments of loans during the year	0.00	2.50	10.00	25.94
Net loan – Closing	100.00	97.50	183.13	180.41
Average Net loan	50.00	98.75	140.32	181.77
Rate of interest on loan	11%	12%	12%	12%
Interest on loan	0.00	11.85	16.84	21.81
Total interest	**3.49**	**13.55**	**17.95**	**22.35**

The clarification now submitted by TPL totally negates the earlier submission regarding normative loans. TPL must be knowing the loans actually drawn to end of March 2008 while submitting the ARR and should have given the right information in the ARR. The revised data based on the actual loans drawn, is accepted. The Commission accepts the rate of interest at 12% projected by TPL on the proposed new loans during the control period considering the present market conditions.

The Commission, accordingly approves the interest on term loans at Rs. 13.55 crore for the year 2008-09, Rs. 17.95 crore for the year 2009-10 and Rs. 22.35 crore for the year 2010-11.

4.1.11 Interest on working capital

4.1.11.1 The TPL has claimed Rs. 105.59 crore towards interest on working capital for the control period 2008-11. The year wise details projected by TPL are given in the Table 4.27 below.

Table 4.27

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

(Rs. crore)

S.N	Particulars	2008-09	2009-10	2010-11
1	Cost of coal for 2 months	85.11	82.72	86.16
2	Cost of gas for 1 month	12.19	12.83	13.02
3	1% Maintenance spares	8.03	9.40	9.73
4	O&M expenses for 1 month	11.05	11.69	11.74
5	Receivables for 2 months	159.51	162.93	168.55
6	**Total working capital**	**275.89**	**279.57**	**289.21**
7	Interest on working capital @ 12.5%	34.49	34.95	36.15

The TPL has stated that interest on working capital has been calculated at 12.5% as per the norms specified in proviso (V) under section 20 of GERC (Terms and Conditions of Tariff) Regulations, 2005.

4.1.11.2 Regulation 20 (V) (b) specifies 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. All the units of Ahmedabad Power Plant had come under operation before 01/04/2004. Therefore, the short term PLR of SBI as on 01/04/2004 is applicable which was 10.25%. The interest on working capital, is accordingly worked for the control period as detailed in the Table 4.28 below.

Table 4.28

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

(Rs. crore)

S.N	Particulars	2008-09	2009-10	2010-11
1	Cost of coal for 2 months	83.73	81.41	86.08
2	Cost of gas for 1 month	11.59	12.21	12.38
3	1% Maintenance spares	7.31	7.74	9.10
4	O&M expenses for 1 month	9.59	11.36	11.16
5	Receivables for 2 months	147.61	152.24	157.74
6	**Total working capital**	**259.83**	**264.96**	**276.46**
7	Interest on working capital @ 10.25%	26.63	27.16	28.34

The Commission, therefore, approves the interest on working capital at Rs. 26.63 crore for the year 2008-09, Rs. 27.16 crore for the year 2009-10 and Rs. 28.34 crores for the year 2010-11.

4.1.12 Depreciation

4.1.12.1 The TPL has claimed Rs. 101.65 crore towards deprecation charges for the control period 2008-11 as detailed in the Table 4.29 below:

Table 4.29

Depreciation projected for the control period 2008-11

(Rs. crore)

S.N	Particulars	2008-09	2009-10	2010-11
1	Depreciation	30.72	33.94	36.99

The depreciation claimed is as per the rates specified by the CERC.

The computation of depreciation charges as given in the ARR (Form-12) are checked and found to be correct. The average rate of depreciation worked out to 3.68% to 3.93% on the average assets during the control period.

The Commission, approves the depreciation charges for the control period at Rs. 30.72 crore for 2008-09, Rs. 33.94 crore for 2009-10 and Rs. 36.99 crore for 2010-11 as projected by TPL.

4.1.13 Return on equity

4.1.13.1 The TPL has claimed Rs. 168.41 crore towards return on equity at 14% for the control period 2008-11. The year wise details of equity and return are given in the Table 4.30 below:

Table 4.30

Return on equity projected by TPL for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Opening balance	368.25	380.95	421.94
Addition	12.70	40.98	9.95
Closing balance	380.95	421.94	431.89
Return on equity @ 14%	52.44	56.20	59.77

TPL has pointed out that in the tariff order for 2007-08, the Commission had approved equity and free reserves of Rs. 1249.45 crore as on 1st April 2005 for the entire business of TPL including distribution and generation. This approved equity base has been allocated to Distribution business and Ahmedabad generation business on the basis of GFA as on 1st April 2005. It is further stated that 26% of GFA of TPL was contributed by Ahmedabad generation and accordingly 26% of the total approved equity amounting to Rs. 334.86 crore as on 1st April 2005 has been allocated to TPL – G (APP). The opening equity for 2007-08 has been arrived at by adding equity at the rate of 30% i.e Rs. 8.62 crore for the total capitalization during 2005-06 and 2006-07. The TPL has also added Rs. 28.05 crore towards equity addition during 2007-08 and thus arrived at the opening balance of Rs. 361.53 crore as on 01/04/2008.

4.1.13.2 The issue of equity has been discussed in Chapter –3 (Para 3.18) of this order. The Commission had approved the opening equity (capital employed) for the TPL as an integrated utility at Rs. 1506.37 crore as on 01/04/2008. This excludes equity relating to

TPL (Sugen). The gross fixed assets of TPL – G (APP) are of the value of Rs. 761.15 crore and that of TPL – D Rs. 2920.28 crore as on 01/04/2008. The proportional equity for the TPL – G (APP) has, accordingly been worked out to Rs. 311.45 crore as on 01/04/2008.

Based on this opening equity and considering further equity addition (30% of capitalization during the control period the return on equity is worked out as detailed in the Table 4.31 below:

Table 4.31

Return on equity approved by the Commission for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Opening balance	311.45	324.15	365.13
Addition	12.70	40.98	9.95
Closing balance	324.15	365.13	375.08
Average equity	317.80	344.64	370.11
Return on equity @ 14%	**44.49**	**48.25**	**51.81**

The Commission, accordingly approves the return on equity at Rs. 44.49 crore for the year 2008-09, Rs. 48.25 crores for the year 2009-10 and Rs. 51.81 crore for the year 2010-11.

4.1.14 Tax on income

The TPL has projected the tax on income at Rs. 86.72 crore for the control period 2008-11 as detailed in the Table 4.32 below.

Table 4.32

Income tax projected by TPL for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Income tax at 33.99% (post tax)	27.00	28.94	30.78

The TPL has claimed the income tax considering the return on equity as a post tax regulated return. As per the Regulation 66 of GERC (Terms and Conditions of Tariffs), Regulations, 2005 tax is allowable on the approved return. The tax is worked out as detailed in the Table 4.33 below.

Table 4.33

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

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
ROE	44.49	48.25	51.81
Income tax at 33.99%	15.12	16.40	17.61

The Commission, therefore approves the provision of tax at Rs. 15.12 crore for the year 2008-09, Rs. 15.40 crore for the year 2009-10 and Rs. 17.61 crores for the year 2010-11.

4.1.15 Other income

4.1.15.1 The TPL has projected the other income at Rs. 1.50 crore each year during the control period 2008-11 as detailed with Table 4.34 below. This is mainly miscellaneous revenue through sale of scrap.

Table 4.34

Other income for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Insurance claim	-	-	-
Sale of scrap	1.50	1.50	1.50
The other income	**1.50**	**1.50**	**1.50**

The Commission approves the other income at Rs. 1.50 crore during each year of the control period as projected by the TPL.

4.1.16 The ARR for the Ahmedabad Power Plant as projected by TPL and approved by the Commission for the control period 2008-11 are given in the Table 4.35 below.

Table 4.35

ARR of TPL–Generation : Ahmedabad power plant for the control period 2008-11

(Rs. crore)

S.No.	Particulars	Projected by TPL			Approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
	Fixed Charges :						
1	Interest on Loan Capital	15.31	24.84	23.78	13.55	17.95	22.35
2	Depreciation	30.72	33.94	36.99	30.72	33.94	36.99
3	O & M Costs						
	a) Employee Costs	68.04	57.04	62.74	49.70	52.69	55.85
	b) Repairs and Maintenance	39.63	57.05	50.72	43.27	60.12	53.12
	c) A & G Expenses	24.92	26.16	27.47	22.16	23.49	24.90
4	Interest on Working Capital	34.49	34.95	36.15	26.63	27.16	28.34
5	Return on Equity	52.44	56.20	59.77	44.49	48.25	51.81
6	Tax on Income	27.00	28.94	30.78	15.12	16.40	17.61
7	Incentive	9.12	9.68	11.25	-	-	-
8	**Total**	**301.67**	**328.80**	**339.65**	**245.64**	**280**	**290.97**
9	Less : Other Income	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)	(1.50)
10	**Total Fixed Charges**	**300.17**	**327.30**	**338.15**	**244.14**	**278.50**	**289.47**
11	Fuel Cost	656.88	650.30	673.16	641.51	634.93	656.94
12	**Total ARR**	**957.05**	**977.60**	**1011.31**	**885.65**	**913.43**	**946.41**
13	Net Generation(MU)	3593.74	3550.84	3745.49	3601.41	3559.92	3750.52
14	**Fixed Charges(Rs/KWh)**	**0.84**	**0.92**	**0.90**	**0.68**	**0.78**	**0.77**
15	**Variable Charges(Rs/KWh)**	**1.83**	**1.83**	**1.80**	**1.78**	**1.78**	**1.75**
16	**Cost of generation(Rs/KWh)**	**2.66**	**2.75**	**2.70**	**2.46**	**2.57**	**2.52**

4.1.17 Incentive

As per clause 22 of GERC Regulations, 2005, an incentive is payable at 25 paise / kWh for the actual generation in excess of generation beyond 80% normative PLF. This is not considered as part of ARR as it is not a cost component.

This is payable at the end of the year based on actual generation.

4.2 TPL - Generation – Sugen Power Plant and its performance

4.2.1 As already stated TPL is in the process of establishing a 1147.5 MW Combined cycle power plant at village Akhakol, Dist Surat, Gujarat. This was initially planned to get commissioned in FY 2008. But the commissioning schedule is delayed. According to TPL, all essential non – EPC works viz. intake well, water pipe line reservoir, compound wall, roads and site office have been completed. The work by EPC contractor is going in full swing and the expected dates of commissioning are as given in Table 4.36 below.

Table 4.36

Capacity and CoD details of Sugen Generating Station as projected by TPL

S.N	Details of units	Installed capacity (MW)	Expected CoD
1	Unit 10	382.5	1st quarter of 2009
2	Unit 20	382.5	2nd quarter of 2009
3	Unit 30	382.5	3rd quarter of 2009
	Total	**1147.5**	

4.2.2 Gross generation and net generation for TPL – G (Sugen)

TPL has submitted that this project has been granted "Mega Power Project" status by the Ministry of Power, which mandates that the project should supply power to more than one state. To meet this requirement, TPL proposes to sell a capacity of 100 MW to PTC. Being an inter state plant, as per the provisions of the clause 79 (1) (b) of the Electricity Act 2003, the Tariff determination shall be under the purview of CERC. For control period FY 2008-09 to FY 2010-11, TPL proposes to supply a capacity of 824.74 MW, out of 1147.5 MW, to its distribution business as per PPAs signed by Surat and Ahmedabad licensed areas with TPL – G (Sugen). Pending approval of the tariff applicable along with FSA formula for sale for TPL – G (Sugen) by CERC, a tentative tariff as worked out by TPL was proposed.

TPL projected a net generation in Sugen plant for the control period as follows:

Projected allocated supply from TPL – G (Sugen) to TPL – D

Gross capacity	Net generation		
	FY 2008-09	**2009-10**	**2010-11**
824.74 mw	203 MU	5644 MU	5845 MU

It has also projected power purchase cost (including fixed and variable charges) for the net generation for the control period as follows:

Power Generation Cost (Rs.crore)		
FY 2008-09	**2009-10**	**2010-11**
62.93	1681.91	1712.59

For arriving at the above costs TPL projected a heat rate of 1850 K.Cal/KWh for the station and gas price at 5.99 USD per MMBTU with an exchange rate of Rs.40 per MMBTU.

Commission's View

The Commission tentatively approves the net generation and the corresponding generation cost from Sugen as projected by TPL for the control period. The difference between this cost and the approved tariff by CERC will be considered during annual performance review. As per the details furnished by TPL the cost of generation works out to Rs. 3.10/kWh for the year 2008-09, Rs.2.98/kWh for the year 2009-10 and Rs.2.93/kWh for the year 2010-11.

4.3 TPL – Distribution

4.3.1 Torrent Power Limited have filed MYT petition for ARR and tariff revision for the Ahmedabad/Gandhinagar and Surat areas together. Some of the consumers raised the issue that TPL holds separate distribution licenses for Ahmedabad/Gandhinagar and Surat areas and they have to therefore file separate petitions for Ahmedabad/Gandhinagar and Surat areas for approval of ARR and tariff revision.

The Commission has accordingly asked them to furnish the data for its distribution business for Ahmedabad /Gandhinagar and Surat areas separately vide letter No. nil dated 25th September 2008

The ARR is analysed separately for Ahmedabad/Gandhinagar and Surat areas as below:

4.3.2 Energy sales

Projection of category wise energy sales is essential for estimating the likely revenue from the sales and arrive at the quantum of power purchase considering TPL's own generation. Realistic estimation of energy sales is, therefore, an important requirement. This section, examines in detail the customer category wise sales projected by TPL in its MYT petition for the years 2008-09, 2009-10 and 2010-11 for approval of ARR during the control period.

4.3.3 The company distributes electricity to about 20.17 lakh consumers in the cities of Ahmedabad, Gandhinagar and Surat. The existing customer categories and tariffs in Surat are different from those of Ahmedabad and Gandhinagar. The projection of energy sales are given separately for (1) Ahmedabad & Gandhinagar and (2) Surat areas. The company has, however, proposed the same customer categories and uniform tariffs in both the areas in its MYT Petition. This is discussed later.

4.3.4 <u>A. Ahmedabad & Gandhinagar</u> – Category wise consumers

TPL serves about 14.36 lakh consumers in the cities of Ahmedabad and Gandhinagar. These consumers are broadly categorized as under.

Residential (RGP)	Applicable to lights, fans, appliances etc in residential premises
Commercial (CGP & IGP)	Applicable to lights, fans, appliances etc. in industrial premises (other than residential).
LT Industrial	
- LTP I & II	Applicable to motive power installations upto 15 BHP
- LTMD I & II	Applicable to motive power installations above 15 BHP
HTP Industrial (HTMD)	Applicable to High Tension consumers for maximum demand 100 kVA and above
HTP – Pumping	Applicable for supply to water and sewerage pumping stations
Agriculture (LTP-AG)	Applicable to motive power for agricultural purpose

GLP	Applicable to lights, fans, appliances etc in premises (other than residential) or hospital, charitable institutions etc.
AMC HT	Applicable to AMC installations
AMC LT	
AMC – St. lighting	
Temporary	Temporary supply

B. Surat – Category wise consumers

TPL serves about 5.81 lakh consumers in Surat area. These consumers are broadly categorized as under.

Residential	Applicable to lights, fans, appliances etc in residential premises
Commercial	Applicable to lights, fans, appliances etc. in commercial premises
LT Industrial	
- LTP	Applicable to consumers with motive power load not exceeding 50 BHP
- LTMD I & II	Applicable to consumers with motive power 50 to 120 BHP
HTP Industrial (HTMD I & II)	Applicable for industrial purposes for demand of 100 KVA and above
GLP	Applicable to lights, fans etc in charitable installations etc.
Agriculture	Multi power for agricultural purpose
Temporary	Temporary supply

The categories are broadly similar to Ahmedabad and Gandhinagar.

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

4.3.5 Overall approach to sales projections

There are different approaches for forecast of demand of electricity such as econometric analysis, end-use method, trend analysis etc.

It is submitted by TPL that they have relied on past trends for forecasting sales giving due weightage on trends of life style and economy in terms of specific consumption and expected developmental plans, industrial and commercial growth in Ahmedabad & Gandhinagar and Surat for energy projection during the control period 2008-09, 2009-10 & 2010-11. The company has also stated that implementation of slum electrification programme taken up earlier would continue.

4.3.6 Consumers and Consumer profile

TPL serves about 20.17 lakh consumers as on 31st March 2008 in the cities of Ahmedabad, Gandhinagar and Suart. TPL has submitted that for purpose of projecting the number of consumers during the next three years 2008-09 to 2010-11 they have considered the historical trends, market scenario upcoming projects and expected developmental plans in the supply areas. It is also stated by TPL that they have conducted survey of builders, developers and other high value consumers to track their future plans, the input of the above surveys, number of applications received etc have been considered.

The implementation of slum electrification programme over the last four years to remove unauthorized connections in these areas, is proposed to be continued during the control period.

The historical data on the number of consumers for the period 2003-04 to 2007-08 is given in Table 4.37 below as submitted by TPL in their MYT petition.

Table 4.37

Number of consumers – 2003-04 to 2007-08

Consumer category	2003-04	2004-05	2005-06	2006-07	2007-08	Historical growth CAGR(%)
Ahmedabad & Gandhinagar supply area						
Residential	909055	969971	1022188	1053246	1078150	3.47
Commercial	231564	246481	262642	277755	299649	5.29
LTP – 1	6158	6469	6602	6908	7072	2.81
LTP – II	34105	35948	36565	38433	39342	2.90
LTMD –I	1139	1240	1274	1283	1377	3.87
LTMD –II	6958	7615	7785	8252	8857	4.94
HTP - I	459	485	503	542	612	5.92
HTP Pumping	105	109	116	123	126	3.71
Agriculture	645	608	625	534	547	(-)3.24
GLP	331	478	644	652	667	15.04
Temp			4	4	4	0
AMC HT	2007	1921	1764	126	129	-
AMC LT				1157	1184	-
AMC ST. LTG.				958	980	-
Total	**1192525**	**1271326**	**1340711**	**1387858**	**1436532**	**3.71**
Surat Supply Area						
Residential	288278	321484	335246	346199	364199	4.79
Commercial	126488	131061	145838	152320	156520	4.35
LTP	51392	52261	53927	55306	56956	2.08
LTMD	525	642	777	892	1002	13.80
HTMD – I	113	118	118	110	117	0.70
HTMD - II	21	24	27	32	37	11.99
GLP	1203	1512	314	1531	1561	5.35
Temporary supply	441	447	492	529	539	4.10
Agriculture	282	300	404	285	295	0.91
Total	**468743**	**507849**	**538143**	**557204**	**581226**	**4.40**
Grand Total	**1661268**	**1779175**	**1878854**	**1945062**	**2017758**	**3.96**

Based on the historical trend and end use survey for all the consumer categories, TPL projected the number of consumers for the years 2008-09, 2009-10 & 2010-11 as below:

Table 4.38
Number of Consumers – Forecast 2008-09 to 2010-11

Category of consumers	2008-09	2009-10	2010-11
Ahmedabad & Gandhinagar supply area			
Residential	1115988	1145533	1173961
Commercial	306450	319957	332963
LTP – I	7320	7514	7700
LTP – II	40723	41801	42838
LTP (AG)	566	581	595
LTMD –I	1458	1539	1620
LTMD –II	9377	9896	10415
HT	682	752	812
GLP	691	709	727
Miscellaneous sales	134	137	140
Temporary supply	4	4	4
AMC HT	131	134	137
AMC LT	1226	1258	1290
AMC Street light	1015	1041	1067
Total	**1485762**	**1530856**	**1574269**
Surat Supply Area			
Residential	378254	393879	410252
Commercial	161080	164476	170575
LTP	59053	61214	63439
LTMD	1112	1232	1332
HT – I	127	141	151
HTMD - II	42	43	46
General purpose	1576	1594	1614
Temporary supply	544	549	554
Agriculture	300	305	310
Total	**602089**	**623435**	**648275**
Grand Total	**2087851**	**2154291**	**2222544**

Commission's view

The number of consumers projected for the control period of 2008-09 to 2010-11 is in line with the trend of past four years with some marginal adjustment based on end use survey etc. The number of consumers as projected by the company for Ahmedabad & Gandhinagar and Surat supply areas is approved by the Commission.

4.3.7 Projected Energy sales

TPL has furnished the past trends in category wise energy sales since 2002-03 and projections for the years 2008-09, 2009-10 and 2010-11 during the control period. TPL has furnished energy sales for 2007-08 as revised estimates in the MYT petition, and later the actual sales figures are furnished. There is marginal difference in sales figures. Hence, actual sales are considered for analyzing and projecting the sales.

The data on category wise energy sales for the last 5 years (Actuals) is given below as furnished by TPL.

Table 4.39
Category wise sales 2002-03 to 2007-08

(MU)

Category of consumers	2002-03 Actual	2003-04 Actual	2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Actual
Ahmedabad & Gandhinagar supply area						
RGP	908	960	1049	1128	1209	1293
CGP & IGP	374	417	468	520	592	671
LTP	284	291	240	231	240	242
LTMD	454	498	614	686	715	749
HTMD	732	805	896	987	1190	1334
AMC HT	118	112	91	94	102	91
Others	81	82	75	78	97	112
Total	2951	3165	3433	3724	4145	4492
Surat Supply Area						
Residential	363	388	408	455	480	517
Commercial	275	293	322	355	374	411
LTP	1263	1290	1449	1500	1497	1619
LTMD	75	100	122	150	168	187
HTMD	199	194	212	218	204	219
Others	20	22	23	23	23	30
Total	**2195**	**2286**	**2535**	**2701**	**2747**	**2983**

The cumulative annual growth rate (CAGR) in category wise energy sales over the last five and three years in Ahmedabad & Gandhinagar and Surat supply areas is arrived at based on the energy sales data provided by TPL and is given below.

Table 4.40
CAGR of energy sales

Category	CAGR for 5 years (2003-08) (%)	CAGR for 3 years (2005-08) (%)
Ahmedabad & Gandhinagar supply area		
RGP	7.3	7.3
CGP & IGP	12.4	12.8
LTP	(-) 3.2	0.3
LTMD	10.5	6.8
HTMD	12.75	14.2
AMC HT	(-) 5.1	0
Others	6.7	14.3
Total	**8.8**	**9.4**
Surat Supply Area		
Residential	7.3	8.2
Commercial	8.4	8.5
LTP	5.1	3.8
LTMD	20.0	15.3
HTMD	1.9	1.1
Others	8.4	9.3
Total	6.3	5.6

The overall growth of sales based on (i) 5 year CAGR works out to 8.8% for Ahmedabad and Gandhinagar Supply area and 6.3% for Surat supply area and based on 3 year CAGR they are about 9.4% and 5.6 % for the respective areas.

Projected energy sales

The category wise energy sales as projected by TPL for the years 2008-09 to 2010-11 are given below:

Table 4.41
Projected energy sales – 2008-09 to 2010-11

(MU)

Category of consumers	2008-09	2009-10	2010-11
Ahmedabad & Gandhinagar supply area			
RGP	1429.45	1547.04	1676.38
CGP & IGP	758.42	836.53	940.79
LTP – 1	58.97	62.11	65.38
LTP – 2	211.74	223.02	234.78
LTP (AG)	9.03	9.01	9.87
LTMD –1	97.40	105.75	114.89
LTMD –2	730.26	792.82	861.32
HTMD	1422.63	1546.03	1598.60
GLP	9.30	11.19	13.08
Miscellaneous sales	6.16	6.71	6.64
Temporary supply	0.68	0.75	0.82
AMC HT	97.07	98.78	100.62
AMC LT	50.79	55.23	60.21
AMC Street light	39.98	43.65	47.74
Total	**4921.90**	**5338.63**	**5731.11**
Surat Supply Area			
Residential	558.82	588.12	624.20
Commercial	443.99	477.41	516.34
LTP	1694.58	1811.67	1929.39
LTMD	227.70	249.33	270.95
HT – I	201.86	211.42	219.91
HT - II	34.81	36.32	38.85
AGRICULTURE	0.88	0.83	0.89
General purpose	20.89	23.18	24.68
Temporary supply	4.40	3.75	3.99
Total	**3187.92**	**3402.02**	**3629.21**
Grand Total	**8109.82**	**8740.65**	**9360.32**
YOY growth (%age)	**7.71%**	**7.78%**	**7.09%**

The category wise sales projected by TPL for the years 2008-09, 2009-10 and 2010-11 are discussed below.

Commission's Analysis:

4.3.8 Ahmedabad and Gandhinagar Supply area

Residential (RGP)

The sales to the residential category accounts for about 30% of the total sales. TPL has projected the sales to this category at 1429.45 MU, 1547.04 MU and 1676.38 MU for the FYs 2008-09, 2009-10 and 2010-11 respectively. It is submitted by TPL that the forecast of sales is based on 3 year CAGR on the base sales of 2007-08. The CAGR in sales for this category for the last 5 years has been about 7.3% and for 3 years CAGR is 7.3. The YoY growth for 2007-08 is 6.90. TPL has considered about 8% growth during the three years of the control period which is considered realistic considering the likely growth in consumers and specific consumption.

The Commission approves the sales for residential category at 1429 MU for the FY 2008-09, 1547 MU for the FY 2009-10 and 1676 MU for the FY 2010-11 of the control period as projected by TPL.

Commercial (CGP and IGP)

Commercial category accounts for about 15% of the total sales. TPL projected the sales to this category at 758.42 MU, 836.53 MU and 940.79 MU for the year 2008-09, 2009-10 and 2010-11 respectively. TPL has submitted that Ahmedabad having acquired the status of Mega city is witnessing major change in the pattern of construction / commercial activities over the last two years and expects same level of growth during the next three years. The company has therefore applied past 3 year CAGR on the base year of 2007-08 sales for forecasting the energy sales for the three years during the control period.

The CAGR in sales for this category for the last 5 years has been 12.4% and for 3 years it has been 12.8% and YoY growth for 2007-08 has been 13.3%. TPL has considered about 13.0% during 2008-09 and marginally lower growth during the later years. The projections made by TPL are considered reasonable.

The Commission approves the sales for commercial category at 758 MU, 837 MU and 941 MU for the years 2008-09, 2009-10 and 2010-11 respectively during the control period as projected by TPL.

Low Tension Power (LTP)

The sales by low tension power category accounts for about 6% of the total sales. TPL has projected the sales to this category at 270.71 MU, 285.13 MU and 300.16 MU for the years 2008-09, 2009-10 and 2010-11 respectively.

It is submitted by TPL that there has been negative growth in this category during the last 5 years due to shift of the consumers form LTP category to LTMD category because of special drive and inspection of the installations for connected load etc. TPL has stated that the shift is only one time in nature and has been corrected and therefore 3 year CAGR is considered for the projection of sales during the next three years in the control period.

As stated by TPL the growth has been negative as could be seen from Table 4.40 TPL has considered the growth at about 5% during the three years of the control period expecting normal growth. The assumption of TPL is considered acceptable as the category may achieve normal growth after the correction of connected load.

The Commission therefore, approves the sales for Low Tension Power (LTP) category at 271 MU, 285 MU and 300 MU for the years 2008-09, 2009-10 and 2010-11 respectively during the control period as projected by TPL.

Low Tension Maximum Demand (LTMD)

The LTMD category accounts for around 17% of the total sales. TPL has projected the sales to this category at 827.66 MU, 898.57 MU and 976.21 MU for the years 2008-09 to 2010-11 respectively. TPL has submitted that there has been higher growth during the earlier years due to shift of LTP to LTMD because of special drive and action taken by the company for massive replacement of meters etc. It is stated that the same level of growth may not be sustainable in future and therefore considered 3 year CAGR on the sale of 2007-08 in forecasting the sales for the next 3 years.

The CAGR in sales for the category over the last 5 years has been 10.5% and for the 3 year period it has been 6.8%. TPL has considered a growth of around 8% for the next three years which is little over the 3 year CAGR. In the circumstances explained by TPL this level of growth is considered realistic.

In the light of the reasons given by TPL, the Commission approves, the sales to Low Tension Maximum Demand (LTMD) category at 828 MU, 899 MU and 976 MU for the years 2008-09, 2009-10 and 2010-11 respectively during the control period.

High Tension Maximum Demand (HTMD)

The HT consumer segment accounts for about 30% of total energy sales. TPL has projected sales to this category at 1422.63 MU, 1546.03 MU and 1598.60 MU for the years 2008-09 to 2010-11 respectively under the control period corresponding growth of industry. TPL has stated that there was an extraordinary growth in this category since some years because of the following reasons.

i) The boom in textile and process industry due to expiry of quota regime. Almost all process house industries expanded their operations during this period.

ii) Some HT consumers have changed over to TPL supply from their captive units because of higher fuel costs in running captive plants.

However the category seems to have realized its peak consumption with no further possibility of growth in demand. Further it is submitted that because of global recession textile exports are likely to slow down. Therefore minimal growth is expected from textile industry.

On the other hand the city of Ahmedabad is in the transitional phase of becoming Mega city and concentrated loads for big shopping malls and commercial complexes are expected to increase within next couple of years and this will have positive impact on demand.

Taking the above factors into consideration TPL has considered 3 year CAGR with some adjustments to project the sales to this category based on the consumption of 2007-08 taking this as base year.

The CAGR in sales for the category for 5 years has been 12.75 and has been 14.2% for 3 years and YoY growth for the year 2007-08 has been 12.1%.

In view of the reasons mentioned by the company, the Commission approves the sales to the HT maximum demand category at 1423 MU, 1546 MU and 1599 MU for the years 2008-09, 2009-10 and 2010-11 respectively during the control period, as projected by the company.

Ahmedabad Municipal Corporation – High Tension (AMC – HT)

This category serves the water pumping and drainage pumping of AMC and accounts for about 2% of total sales. TPL has projected the sales to the category at 97.07 MU, 98.78 MU and 100.62 MU for the years 2008-09 to 2010-11 years respectively. TPL has submitted that the sales in this category have undergone declining trend in the initial years due to availability of Narmada / Raska water to the city of Ahmedabad and has come to a standstill last year. However while forecasting for the control period on the basis of 3 year CAGR with some minor adjustments marginal growth is expected due to merger of Nagar Palikas into AMC. The growth of this category over the last 5 years has been negative. But the company considered a growth of 6.67% during 2008-09, about 1.8% during 2009-10 & 20010-11.

The Commission agrees with the reasoning of TPL and approves the sale to AMC (HT) at 97 MU, 99 MU and 101 MU for the years 2008-09, 2009-10 and 2010-11 respectively under the control period.

Others

Others include the categories of general purpose (GLP), AMC (LT), AMC (Street light), agriculture, Misc. sales and Temporary supply. The sales under "others" account for about 1% of total sales. TPL has projected the sales under this category at 115.94 MU, 126.54 MU and 138.36 MU for the years 2008-09 to 2010-11 respectively. TPL has stated that the consumption by various categories has been arrived at based on last three year CAGR as there had been no major changes in the pattern of consumption.

The CAGR in sales to these categories has been 6.7% over the past 5 years and 14.3% for 3 year period and YoY for 2007-08 has been 15.46%. The company has considered a growth of about 10% which is considered reasonable considering past trend. Since the sales under this category account for 1% only any variation may not have major impact.

The Commission approves the sales for various categories listed above under "others" at 116 MU, 127 MU and 138 MU for the years 2008-09, 2009-10 and 2010-11 respectively under the control period.

4.3.9 Surat Supply Area

Residential

The sales to residential category accounts for about 17% of total sales. TPL has projected the sales to this category at 558.82 MU, 588.12 MU and 624.20 MU for the years 2008-09, 2009-10 and 2010-11 respectively. TPL has submitted that the consumption of this category is likely to increase on account of increasing migrant population in industrial activity. It is also stated that the authorized connections will be released in slum areas where there are a number of unauthorized connections. The company has applied 3 year CAGR to the base year (2007-08) sales to forecast the sales during the next 3 years.

The CAGR in sales of this category has been 7.3% over the past 5 years, 3 year CAGR has been 8.20% and YoY for the year 2007-08 has been 7.7%. TPL has considered growth of 5 to 6% for the next three years. 7.5% growth would have been more appropriate. The Commission therefore considers a growth of 7.5% for the next 3 years over the base year (2007-08) sales.

The Commission therefore, approves the sales to residential category at 556 MU, 597 MU and 642 MU during the years 2008-09, 2009-10 and 2010-11 respectively under the control period.

Commercial

The sales to commercial category accounts for about 14% of total sales. TPL has projected the sales to this category at 443.99 MU, 477.41 MU and 516.34 MU for the years 2008-09, 2009-10 and 2010-11 respectively. TPL has submitted that 50% of the consumption under this category relates to lights, fans, appliances etc in the industry and balance 50% from shops, showrooms, offices etc. It is stated that the load relating to textile industry may reduce, but the load relating to others may increase. Hence the growth in sales may follow the past trend and forecast for the next three years is done based on 3 year CAGR.

The CAGR for the sales to this category has been 8.4% for the past 5 years and 8.5% for the past 3 years. YoY growth for 2007-08 has been 9.8%.

TPL has projected the sales for the next three years at about 8.0% growth and it is in line with the trend over the past three years.

The Commission approves the sales to commercial category at 444 MU, 477 MU and 516 MU for the years 2008-09, 2009-10 and 2010-11 respectively under the control period.

Low Tension Power (LTP)

The sales to Low Tension Power (LTP) accounts to about 55% of the total sales. TPL has projected the sales to this category at 1694.58 MU, 1811.67 MU and 1929.39 MU for the years 2008-09 to 2010-11 respectively. TPL has submitted the consumption of this category primarily relates to textile and diamond business and based on their survey of likely additional consumers, the annual growth for the next three years is likely to be 5% over the base year sales. The forecast of sales is accordingly done. This is in line with growth over the last 5 years.

The CAGR in sales to this category has been about 5.1% for the past 5 years and 3.8% over the last 3 years and YoY growth for 2007-08 has been 8.17. TPL adopted a growth of about 6% for the next three years. This is considered reasonable.

The Commission therefore, approves the sales to Low Tension Power (LTP) at 1695 MU, 1812 MU and 1929 MU for the year 2008-09, 2009-10 and 2010-11 respectively under the control period.

Low Tension Maximum Demand (LTMD)

The sales to the Low Tension Maximum Demand (LTMD) category accounts for about 6 to 7% of total sales. TPL has projected the sales for this category at 227.70 MU, 249.33 MU and 270.95 MU for the years 2008-09 to 2010-11 respectively. TPL has submitted the consumption under this category is mainly relates to diamond industry which operates for about 10 to 12 hrs a day. It is also stated that sick textile process houses are being converted into diamond houses and commercial complexes. Considering these facts, TPL has not followed past trend, but the sales forecast is based on end use survey.

The CAGR in sales for the category has been 20% for the past 5 years and 15.3% for the 3 years and YoY growth has been 11.3% for 2007-08. TPL has applied a growth of 9 to 10.5% in the forecast for the next 3 years. It is seen that the growth rate during the year 2007-08 has been about 11.3% compared to 15 to 20% growth earlier. Since the forecast is based on end use survey the Commission accepts the sales projected by TPL for next 3 years.

The Commission approves the sales for Low Tension Maximum demand (LTMD) at 228 MU, 249 MU and 271 MU for the years 2008-09, 2009-10 and 2010-11 respectively under the control period.

High Tension Maximum Demand (HTMD)

The sales to High Tension Maximum Demand (HTMD) category accounts for about 7% of total sales; TPL has projected the sales to this category at 236.67 MU, 247.74 MU and 258.76 MU for the years 2008-09, 2009-10 and 2010-11 respectively. TPL has submitted that the consumption by this category is likely to vary significantly from its historical trends. This is primarily on account of old textile process units shifting outside the city inview of stringent pollution norms and possible economies with high valuation of land. The consumption would be affected because these textile houses are likely to get replaced by multi storied commercial complexes or large diamond houses. It is stated that considering the above, TPL has used end use survey to forecast the sales to this category as in the case of LTP & LTMD categories.

The growth in sales to this category has been insignificant over the last 5 years (1 to 2.0%). The growth during 2007-08 has been about 7%. TPL has considered a growth of about 8% during 2008-09 and about 4.6% during later years.

In the light of reasons given by TPL, the Commission approves the sales to the High Tension Demand (HTMD) category at 237 MU, 248 MU and 259 MU for the years 2008-09, 2009-10 and 2010-11 respectively under the control period.

Others

This category includes general lighting (GLP), Agriculture and temporary supply and the sales by these categories account for about 1% of total sales. TPL has projected the sales to this category at 26.17 MU, 27.76 MU and 29.56 MU for the years 2008-09 to 2010-11 respectively. TPL has submitted that the consumption under these categories is likely to follow the past trend and hence 3 year CAGR is considered to forecast the sales for the next 3 years. The consumption under this category being low, any variation may not have any impact.

The CAGR in sales to this category has been 8 to 9% over the past 3 to 5 years. TPL has applied a growth of about 6 to 7% growth to forecast the sales for the next 3 years and this is close to the past growth.

The Commission approves the sales to the categories under others (Agriculture, GLP & Temporary supply) at 26 MU, 28 MU and 30 MU for the years 2008-09, 2009-10 and 2010-11 respectively under the control period.

4.3.10 Consumer category wise energy sales

The category wise energy sales for Ahmedabad and Gandhinagar and Surat supply areas for the control period are discussed above. The sales approved by the Commission are given in Table 4.42 below:

Table 4.42
Consumer category wise – Energy sales for FY 2009 – FY 2011

(MU)

S.N	Category of consumers	Energy sales		
		2008-09	2009-10	2010-11
Ahmedabad & Gandhinagar supply area				
1	Residential (RGP)	1429	1547	1676
2	Commercial (CGP & IGP)	758	837	941
3	**Low Tension Power (LTP)**			
	(i) LTP – 1	**59**	**62**	**65**
	(ii) LTP - 2	**212**	**223**	**235**
4	**Low Tension Maximum Demand**			
	(i) LTMD – 1	98	106	115
	(ii) LTMD - 2	730	793	861
5	High Tension Maximum Demand	1423	1546	1599
6	AMC HT	97	99	101
7	**Others**			
	(i) AMC (LT)	51	55	60
	(ii) GLP	9	11	13
	(iii) Agriculture LT (AG)	9	9	9
	(iv) AM Street lights	40	44	48
	(v) Misc. sales	6	7	7
	(vi) Temporary supply	1	1	1
8	**Total**	**4922**	**5340**	**5731**
	Surat Supply Area			
1	Residential	556	597	642
2	Commercial	444	477	516
3	Low Tension Power (LTP)	1695	1812	1929
4	Low Tension Maximum Demand (LTMD)	228	249	271
5	High Tension Demand (HTMD)			
	(i) HTMD – I	202	211	220
	(ii) HTMD – II	35	37	39
6	Others			
	(i) General purpose	21	23	25
	(ii) Agriculture	1	1	1
	(iii) Temporary supply	4	4	4
7	**Total**	**3186**	**3411**	**3647**
	Grand total (Ahmedabad & Surat supply area)	**8108**	**8751**	**9378**
	YoY growth (%age)	**8.47**	**7.93**	**7.16**

The Commission approves the total sales to Ahmedabad, Gandhinagar and Surat supply areas as below:

(MU)

Supply area	2008-09		2009-10		2010-11	
	Projected by TPL	Approved by the Commission	Projected by TPL	Approved by the Commission	Projected by TPL	Approved by the Commission
Ahmedabad, Gandhinagar	4921.90	4922	5338.63	5340	5731.11	5731
Surat	3187.92	3186	3402.02	3411	3629.21	3647
Total sales	8109.82	8108	8740.65	8751	9360.32	9378
YoY growth (%)	7.71	8.47	7.78	7.93	7.09	7.16

4.4 Analysis of ARR: TPL Distribution – Ahmedabad and Gandhinagar Supply Area

4.4.1 Energy Sales

The category-wise energy sales for Ahmedabad and Gandhinagar area is discussed in para 4.3.7 above. The energy sales as approved in Table 4.42 by the Commission are reproduced in Table 4.43 below:

Table 4.43

Category-wise energy sales – FY 2008-2011

Sl.No.	Consumer category	Energy Sales (MU)		
		2008-09	2009-10	2010-11
1	Residential (RGP)	1429	1547	1676
2	Commercial (CGP & IGP)	758	837	941
3	Low Tension power (LTP)			
	(i) LTP-1	59	62	65
	(ii) LTP-2	212	223	235
4	Low tension power (LTMD)			
	(i) LTMD-1	98	106	115
	(ii) LTMD-2	730	793	861
5	High tension	1423	1456	1599
6	AMC HT	97	99	101
7	Others			
	(i) AMC (LT)	51	55	60
	(ii) GLP	9	11	13
	(iii) Agriculture LT (AG)	9	9	9
	(iv) AMC Street lights	40	44	48
	(v) Misc. Sales	6	7	7
	(iv) Temporary supply	1	1	1
	Total Sales	**4922**	**5340**	**5731**

4.4.2 Distribution Losses

TPL in its Multi Year Tariff filing had furnished the distribution losses for 2007-08 and the control period for the total system – Ahmedabad / Gandhinagar and Surat areas as below:

Distribution Losses

Year	Loss (%)
2007-08 (revised estimate)	9.26
2008-09 (projected)	10.50
2009-10 "	10.25
2010-11 "	10.00

Later TPL has furnished the actual loss for 2007-08 at 8.75%.

As per the directive of the Commission, TPL has subsequently furnished the area-wise data for Ahmedabad and Surat areas separately vide their letter dated September 23, 2008. The breakup of distribution losses for Ahmedabad and Surat areas for 2007-08 and 2008-11 area-wise as furnished by TPL are given in Table 4.44 below:

Table 4 .44
Distribution Losses

(%)

Area	2007-08 (Actuals)	2008-09	2009-10	2010-11
Ahmedabad and Gandhinagar	10.48	10.50	10.25	10.00
Surat	6.01	10.50	10.25	10.00
Ahmedabad and Surat together	8.75	10.50	10.25	10.00

The actual loss for Ahmedabad area for 2007-08 is 10.48% as furnished by them and loss trajectory furnished for the control period is as below:

Year	Loss (%)
2008-09	10.50
2009-10	10.25
2010-11	10.00

Against the actual loss of 10.48% during 2007-08, TPL projected the loss of 10.50 for 2008-09. As discussed in para 4.2.10 above there is no justification for increase in distribution losses during the control period over the loss level of 8.75% during 2007-08. The Commission has approved loss trajectory as below:

Year	Loss (%)
2008-09	8.75
2009-10	8.70
2010-11	8.65

There appears to be considerable scope for reduction in the loss level of 10.48% in Ahmedabad area projected by TPL, the Commission therefore, approves the loss trajectory for Ahmedabad area as below:

Year	Loss (%)
2008-09	10.43
2009-10	10.25
2010-11	10.00

The Commission has considered a reduction of 0.05% during 2008-09, and approved at the same level as projected by TPL for the years 2009-10 and 2010-11 which is a achievable by TPL from the level of 10.48 during 2007-08.

4.4.3 Energy Requirement

Energy requirement is the sum of energy sales and the transmission and distribution loss approved by the Commission. The energy requirement approved by the Commission during the control period is given in Table 4.45 below:

Table 4.45

Energy Requirement 2008-11

Sl.No.	Particulars	2008-09	2009-10	2010-11
1.	Energy Sales (MU)	4922	5340	5731
2.	Distribution loss (%)	10.43	10.25	10.00
3.	Distribution loss (MU)	573	610	637
4.	Energy input at distribution level (MU)	5495	5950	6368
5.	Transmission loss for transmission of power to Ahmedabad	3	156	47
6.	Energy requirement	5498	6106	6415

4.4.3.1 Energy Available

As discussed earlier TPL meets its energy requirement mostly from its own generation at Sabarmathi, Vatva and SUGEN and balance from GUVNL. Though their own generating stations at Sabarmati, Vatva and SUGEN operate integrated, the power form Sabarmati and Vatva being local stations flows to Ahmedabad area and the balance requirement from SUGEN station and GUVNL.

The energy available from the above sources to Ahmedabad area during the control period is as given in Table 4 .46 below:

Table 4. 46

Energy Available (Net)

Sl.No.	Source	2008-09	2009-10	2010-11
1.	TPL-G (APP) (Sabarmati and Vatva)	3601	3560	3751
2.	TPL-G (SUGEN)	32	2088	2206
3.	GUVNL	1668	138	-
4.	Wind energy	197	320	458
	Total	5498	6106	6415

4.4.3.2 Power Purchase

As mentioned earlier TPL purchases power from GUVNL to meet its balance requirement in addition to its own generation. The generation costs of its own generation are discussed in para 4.1.16 above.

According to the directive of the Commission, TPL has to purchase from Renewable Energy Sources (RES) mainly wind energy. Since they had not been purchasing energy from renewable sources during earlier years. Purchase of 4% of total, 6% and 8% of total sales during 2008-09, 2009-10 and 2010-11 including the backlog.

The quantum of purchase from GUVNL and SUGEN and the cost is given below in Table 4.47.

Table 4.47

Power Purchase Cost

Sl.No.	Source	2008-09	2009-10	2010-11
	GUVNL			
1.	Energy (MU)	1668	138	-
2.	Rate per Rs./kWh	3.10	3.10	-
3.	Cost (Rs. crore)	517.08	42.78	-
	SUGEN			
1	Energy (MU)	32	2088	2206
2	Rate per Rs./kWh	3.10	2.98	2.93
3	Cost (Rs. crore)	9.92	622.22	646.36
	Wind Energy			
1	Energy (MU)	197.00	320.00	458.00
2	Rate Rs./kWh	3.51	3.51	3.51
3	Cost (Rs. crores)	69.15	112.32	160.76

The power purchase cost is worked at as Rs.3.10/kWh as projected by TPL for 2008-09 for GUVNL and for any variation in the price, TPL may claim under FPPPA. The power purchase cost in respect of SUGEN is worked out as per the cost projected by TPL in their submission on 13th November 2008.

4.4.4 Employee expenses

The TPL has projected the employee expenses in respect of Ahmedabad and Gandhinagar area for the control period as detailed in the Table 4.48 below.

Table 4.48

Employee cost projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Employee expenses	85.11	83.39	92.66

The employee cost for the year 2007-08 (actual) was Rs. 59.08 crore. Against this TPL has projected Rs. 85.11 crore for the year 2008-09 about 44% increase over actual for the year 2007-08. There is no increase in the projection for the year 2009-10 while there is 11% increase in the projection for the year 2010-11. The Commission has analysed the actual employee cost of TPL as an integrated utility for the years 2004-05 to 2007-08. The CAGR for the 3 year period worked out to about 2%. The increase projected by TPL during the control period is about 16% CAGR over the actual employee cost of Rs. 59.08 crore during 2007-08. The Commission considers that there is no justification for such an increase. The annual increase in most of the utilities is in the order of 5 to 6%. As such a 6% increase P.A. over the employee cost of Rs. 59.08 crores for the year 2007-08 is considered reasonable towards increase in pay and allowances and inflation.

The employee cost with 6% escalation over the actuals for 2007-08 (base year) is worked out for the control period as given in the Table 4.49 below.

Table 4.49

Employee cost as approved for the control period 2008-11

(Rs. Crore)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
Employee cost	59.08	62.62	66.38	70.37

The Commission, accordingly approves the employee cost at Rs. 62.62 crore for 2008-09, Rs. 66.38 crore for 2009-10 and Rs. 70.37 crore for 2010-11.

4.4.5 Repairs and Maintenance (R&M) expenses

The TPL has projected the R&M expenses for Ahmedabad and Gandhinagar area for the control period as detailed in the Table 4.50 below.

Table 4.50

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

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
R&M expenses	85.36	95.12	105.34

The TPL has projected the R&M expenses with annual increase of about 11% during the control period.

The Commission has obtained the actual R&M cost which was Rs. 69.06 crore for the year 2007-08 (base year). The actual R&M cost of TPL (Generation and distribution) for the years 2004-05 to 2007-08 has been analyzed. The R&M cost which stood at Rs.123.11 crore in 2004-05 increased to 134.89 crores during the year 2007-08 registering a CAGR of 3.06%. Considering the expansion proposed for the distribution network and to improve the quality of supply to consumers during the control period the Commission approves 6% increase P.A. in R&M expenses for the control period.

The R&M cost with the approved annual increase of 6% P.A. is worked out as detailed in the Table –4.51 below:

Table 4.51

R&M expenses approved for the control period 2008-11

(Rs. crore)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
R&M expenses	69.06	73.20	77.60	82.25

The Commission, accordingly approves the R&M expenses at Rs. 73.20 crore for 2008-09, Rs. 77.60 crore for 2009-10 and Rs. 82.25 crore for 2010-11.

4.4.6 Administration and General (A&G) expenses

4.4.2.1 The TPL projected the A&G expenses for the control period as detailed in the Table –4.52 below.

Table 4.52
A&G expenses projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
A&G expenses	35.02	39.03	43.22

The TPL has projected the A&G expenses with annual increase of about 11% for the control period.

The Commission has obtained the A&G expenses for the year 2007-08 (Actual) which were Rs. 32.92 crore. The A&G expenses for the TPL – Distribution Ahmedabad and Surat areas for the years 2004-05 to 2007-08 were analysed in para 4.3.19.3. The increase recorded during the period is insignificant. The actual A&G expenses which were Rs. 58.48 crores for both the areas included Rs. 5.24 crore towards donation charges which cannot be considered as a legitimate charge of electricity business. Excluding this donation charge the A&G expenses for 2007-08 were determined at Rs. 53.20 crore for the base year 2007-08 in para 4.3.19.3 and the proportionate cost works out to Rs. 29.95 crore for the Ahmedabad and Gandhinagar area. The Commission cosndiers 6% annual increase over the actual for 2007-08 during the control period 2008-11 and they are worked out as detailed in the Table 4.53 below.

Table 4.53
A&G expenses approved for the control period 2008-11

(Rs. crore)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
A&G expenses	29.95	31.75	33.65	35.67

The Commission, accordingly approves the A&G expenses at Rs. 31.75 crore for 2008-09, Rs. 33.65 crore for 2009-10 and Rs. 35.67 crore for 2010-11.

4.4.7 Capital expenditure

The TPL has projected an amount of Rs. 1319.03 crore towards capital expenditure for the control period 2008-11. The details are given in the Table –4.54 below.

Table 4.54
Capital expenditure projected for the control period 2008-11

(Rs. crore)

	Particulars	2008-09	2009-10	2010-11
I	**Ahmedabad Area**			
	EHV Network (66 kV & 220 kV)	274.54	253.01	175.50
	HV Network	103.98	93.50	91.68
	LT Network	44.44	43.98	51.38
	Metering	28.41	25.87	24.90
	Spl. Projects	19.59	7.30	9.02
	Customer care, IT etc	34.30	24.33	13.31
	Total Ahmedabad Area	**505.26**	**447.98**	**365.79**

TPL has mentioned that it has plans to undertake capital investment for augmentation and upgradation of distribution network to meet the requirement of power and provide reliable power. It has planned investments at an optimal level to avoid increase in technical losses. The proposed investments include allocation for increased load growth, reliability,

renovation and replacement for system upgradation. It also includes investments for improving the safety conditions, supporting infrastructure, reactive power compensation and special projects for distribution automation and introduction of technical advancement. These special projects are aimed at enhancing reliability, improved customer services, reduction in operating cost, network optimization etc. TPL has submitted that the proposed capital investments will be necessary for maintaining the projected efficiency parameters and requested for approval of the proposed capital expenditure for the control period.

The Commission has examined the capital investment proposed by TPL to meet the load growth, quality of supply, reliability etc and approves the capital expenditure as proposed by the TPL for Ahmedabad area for the control period.

The Actual capitalization of expenditure on major items of expenditure on taking the asset into service duly certified by the Electrical Inspector / Safety Inspector shall be submitted.

4.4.8 Interest charges

The TPL has projected the interest expenses for the Ahmedabad area as detailed in the Table 4.55 below:

Table 4.55
Interest charges projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Interest charges	66.00	99.58	112.32

The TPL has not furnished any supporting details of loans existing and the borrowings proposed during the control period. The TPL has submitted revised data in respect interest charges for the entire distribution namely Ahmedabad and Surat areas in their letter dated 16.10.2008. The Commission has analyzed this revised data and worked out the interest charges for the entire distribution as detailed below:

Interest charges approved by the Commission for the entire distribution for the control period 2008-11

(Rs. Crores)

S.N	Year	Loan drawal	Rate of interest / No. of years of repayment	2008-09	2009-10	2010-11
I	**Interest**					
	Outstanding loan as on 01/04/2008	701.69	8.17 to 11.50%	72.90	65.50	55.99
	New loans					
	2008-09	450.19	12%	27.01	50.16	46.30
	2009-10	367.22	12%	-	22.03	40.91
	2010-11	225.56	12%	-	-	13.53
	Total Interest			**99.91**	**137.69**	**156.73**

These interest charges are now apportioned to Ahmedabad area and Surat area in proportion to the approved capital expenditure for the respective areas. The apportioned interest charges for the control period are given in the Table 4.56 below.

Table 4.56
Apportioned interest expenses for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Capex (Total)	**715.14**	**549.23**	**438.99**
Ahmedabad area	505.26	447.98	365.79
Surat area	209.88	101.25	73.20
Interest charges (Total)	**99.91**	**137.69**	**156.73**
Apportioned to :			
Ahmedabad area	**70.59**	**112.31**	**130.60**
Surat area	29.32	25.38	26.13

The Commission approves the interest charges at Rs. 70.59 crore for 2008-09, Rs. 112.31 crore for 2009-10 and Rs.130.60 crore for 2010-11 for the Ahmedabad Area for the control period.

4.4.8.1 Interest on Security Deposit

The TPL has included the interest on security deposit in the interest on term loan while furnishing the details separately for Ahmedabad distribution area and Surat distribution area.

The interest on security deposit has been determined for the TPL-D as a whole as shown below.

Consumer Security Deposit and interest thereon approved for the control period 2008-11

(Rs. crore)

Year	Opening balance	Additions during the year	Closing balance	Rate of interest (%)	Amount of interest
2007-08	238.47				
2008-09	250.39	11.92	262.91	6%	15.40
2009-10	262.91	12.52	276.91	6%	16.19
2010-11	276.06	13.15	290.06	6%	16.98

The interest on security deposit is now apportioned between Ahmedabad area and Surat area in proportion of the interest charges projected by TPL. The apportioned interest on security deposit for the control period is given in the Table 4.57 below:

Table 4.57
Apportioned interest on Security Deposits for the Control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Interest charges projected			
Ahmedabad area	66.00	99.58	112.32
Surat Area	65.61	66.27	60.90
Total for Distribution	**131.61**	**165.85**	**173.22**
Interest on security deposit approved for TPL-D	**15.40**	**16.19**	**16.98**
Apportioned to:			
Ahmedabad	**7.72**	**9.72**	**11.01**
Surat area	7.68	6.47	5.97

The Commission accordingly approves the interest on security deposits at Rs.7.72 crore for 2008-09 Rs.9.72 crore for 2009-10 and Rs.11.01 crores for 2010-11 for Ahemedabad and Gandhinagar distribution area.

4.4.9 Interest on working capital

The TPL has projected Rs. 167.91 crore towards interest on working capital for the control period for the Ahmedabad area as shown the Table 4.57-A below.

Table 4.57-A

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

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Interest on working capital	50.70	56.74	60.47

The TPL has not furnished the supporting details as to how it has been worked out TPL simply apportioned the interest on working capital projected for the TPL – Distribution into Ahmedabad area and Surat area.

The interest on working capital has been worked out as per GERC norms as shown in the Table 4.58 below.

Table 4.58

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

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
O&M expenses	13.96	14.80	15.69
Spares	9.07	12.26	15.14
Receivables	170.88	216.34	228.79
Working capital	193.91	243.34	259.62
Interest on WC @ 10.25%	19.61	24.66	26.35

The Commission accordingly approves the interest on working capital at Rs. 19.61 crore for 2008-09, Rs. 24.66 crore for 2009-10 and Rs. 26.35 crore for 2010-11.

4.4.10 Depreciation

The TPL has projected Rs. 249.85 crore towards depreciation for the control period for the Ahmedabad area as shown in the Table 4.59 below.

Table 4.59

Depreciation projected for the control period 2008-11

(Rs. Crore)

Particulars	2008-09	2009-10	2010-11
Depreciation	71.53	82.75	95.57

The depreciation charges claimed are as per the rates specified by CERC.

The Commission approves the depreciation charges for the control period as projected by TPL.

4.4.11 Return on equity

The TPL has projected the return on equity for the Distribution – Ahmedabad area as shown in the Table 4.60 below.

Table 4.60

Return on equity projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Return on equity	112.61	131.48	147.50

The TPL has not furnished any supporting details of opening equity and equity addition towards Capex separately for Ahmedabad area and Surat area. The Commission has analyzed the return on equity for the TPL – Distribution both Ahmedabad and Surat areas and approved the return on equity at Rs. 181.15 crore for 2008-09, Rs. 206.41 crore for 2009-10 and Rs. 224.96 crore for 2010-11 as shown below:

Return on equity approved by the Commission for the entire distribution for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Opening balance	1194.92	1392.96	1555.70
Addition	198.04	162.74	102.30
Closing balance	1392.96	1555.70	1658.00
Average equity	1293.94	1474.33	1606.85
Return on equity @ 14%	**181.15**	**206.41**	**224.96**

The return on equity is now apportioned between Ahmedabad area and Surat area in proportion of the return on equity projected by TPL. The apportioned return on equity for the control period is given in the Table 4.61 below.

Table 4.61

Apportioned return on equity for the control period 2008-11

(Rs. Crore)

Particulars	2008-09	2009-10	2010-11
Return on equity projected by TPL			
Ahmedabad area	112.61	131.48	147.50
Surat area	69.70	76.40	79.48
Total for Distribution	**182.31**	**207.88**	**226.98**
Return on equity approved by Commission for TPL Distribution	181.15	206.41	224.96
Return on equity apportioned to			
Ahmedabad area	**111.89**	**130.55**	**146.19**
Surat area	69.26	75.86	78.72

The Commission accordingly approves the return on equity at Rs. 111.89 crore for 2008-09, Rs. 130.55 crore for 2009-10 and Rs. 146.14 crore for 2010-11 for the Ahmedabad area.

4.4.12 Tax on income

The TPL has projected the tax on income for the control period for Ahmedabad area as shown in the Table 4.62 below.

Table 4.62

Income tax projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Income tax	57.99	67.70	75.95

The TPL has claimed the income tax considering the return on equity as a post tax regulated return. As per Regulations 66 of GERC (Terms and Conditions of Tariffs) Regulations, 2005 tax is allowable on the approved return. The tax is worked out as shown in the Table 4.63 below.

Table 4.63

Income tax approved for the control period 2008-11 in respect of Ahmedabad area

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
ROE approved	111.89	130.55	146.19
Income tax at 33.99%	38.03	44.37	49.69

The Commission, accordingly approves the provision of tax at Rs. 38.03 crore for 2008-09, Rs. 44.37 crore for 2009-10 and Rs. 49.69 crore for 2010-11.

4.4.13 Provision for bad debts

The TPL has projected Rs. 14.48 crore for the control period for Ahmedabad area as shown in the Table 4.64 below:

Table 4.64

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

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Provision for bad debts	4.39	4.90	5.19

The projected provision works out to 0.23% of the proposed revenue. The Commission considers 0.10% of the revenue projected towards bad debts. The provision is accordingly worked out as given in the Table –4.65 below.

Table 4.65

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

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Provision for bad debts	1.88	2.05	2.20

The Commission, accordingly approves the provision for bad debts at Rs. 1.88 crore for 2008-09, Rs. 2.05 crore for 2009-10 and Rs. 2.20 crore for 2010-11.

4.4.14 Contingency reserve

The TPL has projected Rs. 34.06 crore towards contingency reserve for the control period 2008-11 for Ahmedabad area as shown in the Table 4.66 below.

Table 4.66

Contingency reserve projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Contingency reserve	8.93	11.30	13.83

TPL has projected this reserve at 0.5% of the GPA at the beginning of the year.

The TPL has referred to the Commission's letter dated December 18, 2007 where in it was mentioned that contingency reserve would be considered in the next ARR in accordance with the Regulations. The GERC (Terms and Conditions of Tariff) Regulations, 2005 did not specify any contingency reserve on a percentage basis on the gross fixed assets as claimed by the TPL. The TPL has also not given any justification for providing such contingency reserve. As per Regulation 66 of GERC (Terms and Conditions of Tariff) Regulations, 2005 the Commission may allow special allocation to meet the requirement of likely unexpected emergent circumstances, which cannot be covered under normal business activities which shall be invested and kept separately from its income as per the directions of the Commission.

The Commission considers a token provision of Rs.0.60 crore each year during the control period 2008-11 as detailed below to cover the requirement of likely unexpected circumstances and any utilization from this fund should be intimated to the Commission.

Table 4.66-A

Contingency reserve approved for the control period 2008-11

(Rs. Crore)

Particulars	2008-09	2009-10	2010-11
Contingency reserve	**0.60**	**0.60**	**0.60**

The Commission approves the contingency reserve at Rs. 0.60 crore for 2008-09, Rs. 0.60 crore for the year 2009-10 and Rs. 0.60 crores for 2010-11.

4.4.15 Non tariff income

The TPL has projected the non-tariff income at Rs. 151.70 crore for the control period as shown in the Table 4.67 below.

Table 4.67

Non-tariff income projected for the control period

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Non – tariff income	48.39	50.53	52.78

TPL has stated that it has estimated the non-tariff income from sources like meter rent, street light maintenance, sale of scrap, delayed payment charges, bad debt recovery etc. The projected increase is about 4% P.A.

The Commission has examined the non-tariff income actual for the year 2007-08 which was Rs. 97.61 crore. The proportionate amount for Ahmedabad area works out to Rs. 72.27 crore. The composite growth rate of sales and consumers is about 5.5%. The Commission therefore considers annual increase of 5.5% over the actuals for 2007-08.

The non-tariff income has been worked out as given in the Table 4.68 below.

Table 4.68

Non-tariff income approved for the control period

(Rs. crore)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
Non – tariff income	72.27	76.24	80.44	84.86

The Commission approves the non-tariff income at Rs. 76.24 crore for 2008-09, Rs. 80.44 for 2009-10 and Rs. 84.86 crore for 2010-11.

4.4.16 Revenue from existing tariff

The TPL has projected the revenue for the Ahmedabad area and from existing tariff for the control period as given in the Table 4.69 below:

Table 4.69

Revenue from existing tariff projected for the control period

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Sales revenue	1881.72	2043.89	2199.43

However, the expected revenue from existing tariff on the basis of sales approved by the Commission for Ahmedabad area is worked out as given in the Table 4.70 below.

Table 4.70

Revenue from existing tariff approved for the control period

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Sales revenue	1881.07	2045.63	2200.92

The category wise sales and revenue are given in the Table 4.71 below.

Table 4.71
Category wise sales and revenue approved for the control period 2008-11

Ahmedabad :

Category	2008-09			2009-10			20010-11		
	Sales(MU)	Average Tariff Rs./KWh	Revenue (Rs.Crores)	Sales (MU)	Average Tariff Rs./KWh	Revenue (Rs.Crores)	Sales (MU)	Average Tariff Rs./KWh	Revenue (Rs.Crores)
Residential	1429	3.14	448.71	1547	3.16	488.85	1676	3.18	532.97
Commercial	758	4.61	349.44	837	4.61	385.86	941	4.62	434.74
LTP	59	3.59	21.18	62	3.59	22.26	65	3.59	23.34
LTP-II	212	3.94	83.53	223	3.95	88.09	235	3.96	93.06
LTMD-I	98	3.83	37.53	106	3.83	40.60	115	3.82	43.93
LTMD-II	730	4.12	300.76	793	4.12	326.72	861	4.11	353.87
HTP-I	1423	3.94	560.66	1546	3.94	609.12	1599	3.94	630.01
HTP-Pumping	97	3.75	36.38	99	3.75	37.13	101	3.75	37.88
Agri	9	3.18	2.86	9	3.18	2.86	9	3.18	2.86
GLP	9	3.79	3.41	11	3.81	4.19	13	3.82	4.97
Temp	1	5.31	0.53	1	5.29	0.53	1	5.25	0.53
ST.LTG-GNR/AMC	97	3.72	36.08	106	3.72	39.43	115	3.72	42.78
DOA									
Total	**4922**	**3.82**	**1881.07**	**5340**	**3.83**	**2045.63**	**5731**	**3.84**	**2200.92**

The Commission, accordingly approves the revenue from existing tariff at Rs. 1881.07 crore for 2008-09, Rs.2045.63 crore for 2009-10 and Rs. 2200.92 crore for 2010-11.

4.4.17 Summary of revenue requirement

The summary of revenue requirement of TPL –Distribution Ahmedabad area for the control period 2008-11 as projected by TPL and as analyzed and approved in the preceding paragraphs is given in the Table 4.72 below.

Table 4.72
Revenue requirement of TPL-D Ahmedabad and Gandhinagar area as projected by TPL and as approved for the control period 2008-11

(Rs. crores)

S.No.	Particulars	*Projected by TPL*			Approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
1	TOTAL - Power Purchase + Own Generation	1582.76	1809.51	1856.24	1481.80	1690.75	1753.53
	GUVNL				517.08	42.78	
	Wind Energy				69.15	112.32	160.76
	APP				885.65	913.43	946.41
	SUGEN				9.92	622.22	646.36
2	Employee Expenses	85.11	83.39	92.66	62.62	66.38	70.37
3	R & M Expenses	85.36	95.12	105.34	73.20	77.60	82.25
4	A & G Expenses	35.02	39.03	43.22	31.75	33.65	35.67
5	Depreciation	71.53	82.75	95.57	71.53	82.75	95.57
6	Interest on loans	66.00	99.58	112.32	70.59	112.31	130.60
7	Interest on Security Deposit				7.72	9.72	11.01
8	Interest on Working Capital	50.70	56.74	60.47	19.61	24.66	26.35

S.No.	Particulars	*Projected by TPL*			Approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
9	Return on equity	112.61	131.48	147.50	111.89	130.55	146.19
10	Provision for bad debts	4.39	4.9	5.19	1.88	2.05	2.20
11	Contingency Reserve	8.93	11.30	13.83	0.60	0.60	0.60
12	Income Tax	57.99	67.70	75.95	38.03	44.37	49.69
13	**Total Revenue Expenditure**	**2160.40**	**2481.50**	**2608.29**	**1971.22**	**2275.39**	**2404.03**
14	Less: Non -Tariff Income	48.39	50.53	52.78	76.24	80.44	84.86
15	**ARR (13-14)**	**2112.01**	**2430.97**	**2555.51**	**1894.98**	**2194.95**	**2319.17**
16	Revenue with existing Tariff	1881.72	2043.89	2199.43	1881.07	2045.63	2200.92
17	Revenue Gap(15-16)	230.29	387.08	356.08	13.91	149.32	118.25
18	Sales (mu)	4922	5339	5731	4922	5340	5731
19	**Average Cost (Rs./KWh)**	**4.39**	**4.65**	**4.55**	**4.00**	**4.26**	**4.19**
20	**Average Cost after Non-tariff income(Rs./KWh)**	**4.29**	**4.55**	**4.46**	**3.85**	**4.11**	**4.05**

4.5 Analysis of ARR: TPL Distribution – Surat Supply Area

4.5.1 Energy Sales

The category-wise energy sales for Surat supply area is discussed in para 4.3.8 above. The energy sales as approved by the Commission is reproduced in Table 4.73 below:

Table 4.73
Category-wise energy sales – FY 2008-2011

Sl.No.	Consumer category	Energy Sales (MU)		
		2008-09	2009-10	2010-11
1	Residential	556	597	642
2	Commercial	444	477	516
3	Low Tension power (LTP)	1695	1812	1929
4	Low tension maximum demand (LTMD)	228	249	271
5	High tension maximum demand (HTMD)			
	(i) HTMD-1	202	211	220
	(ii) HTMD-2	35	37	39
6	Others			
	(i) SMC (LT)	21	23	25
	(ii) GLP	1	1	1
	(iii) Temporary supply	4	4	4
	Total Sales	**3186**	**3411**	**3647**

Distribution Losses

TPL in its Multi Year Tariff filing had furnished the distribution losses for 2007-08 and the control period (2008-11) for the entire system- Ahmedabad / Gandhinagar and Surat areas as below:

Distribution Losses

Year	Loss (%)
2007-08 (revised estimate)	9.26
2008-09	10.50
2009-10	10.25
2010-11	10.00

TPL has later furnished the actual distribution loss for 2007-08 at 8.75%.

As per the directive of the Commission, TPL has subsequently furnished the area-wise data for Ahmedabad and Surat areas separately vide their letter dated September 23, 2008. The breakup of distribution losses for Ahmedabad and Surat for 2007-08 and 2008-11 area-wise furnished by TPL are as given in Table 4.74 below:

Table 4.74

Distribution Loses

(%)

Area	2007-08 (Actuals)	2008-09	2009-10	2010-11
Ahmedabad and Gandhinagar	10.48	10.50	10.25	10.00
Surat	6.01	10.50	10.25	10.00
Ahmedabad and Surat together	8.75	10.50	10.25	10.00

It is seen from the data furnished the actual distribution loss during 2007-08 is 6.01% for Surat area and projected loss for 2008-11 is as below:

Year	Loss (%)
2007-08	6.01
2008-09	10.50
2009-10	10.25
2010-11	10.00

It is, seen from the data now furnished by TPL the loss level for Surat area for 2007-08 was 6.01% (actuals) and projected loss trajectory for Surat area during the control period is as follows:

Year	Loss (%)
2008-09	10.50
2009-10	10.25
2010-11	10.00

TPL has maintained same loss levels for Ahmedabd and Surat areas during the control period. An increase of loss level from 6.01% during 2007-08 to 10.50% during 2008-09 (an increase of about 4.5%) for a small urban distribution like Surat is totally unjustified and is not acceptable.

It is stated by TPL in their MYT petition that the source of power to Surat is from SUGEN through its own 220 kV network. The line losses of this 220 kV network will be added in the total losses of the system, TPL has not quantified the losses on 220 kV network. However, the loss on 220 kV network is considered separately and added as transmission loss as shown in Table 4.75.

Though Surat area is a compact urban distribution, a loss of level of 6.01% is a significant achievement. It is considered that further reduction in the loss level is rather difficult though it could be done over a period. The Commission approves the loss level of 6.0% during the control period 2008-11.

Energy Requirement

The energy requirement is the sum of energy sales and the transmission and distribution loss approved by the Commission. The energy requirement as approved by the Commission during the control period is given in Table 4.75 below:

Table 4.75

Energy Requirement 2008-11

Sl.No.	Particulars	2008-09	2009-10	2010-11
1.	Energy Sales (MU)	3186	3411	3647
2.	Distribution loss (%)	6.0	6.0	6.0
3.	Distribution loss (MU)	203	218	233
4.	Energy input at distribution level (MU)	3389	3629	3880
5.	Transmission loss on 220 kV network	2	60	51
6.	Energy requirement	3391	3689	3931

Energy Available

The energy requirement of Surat area is being met at present through purchase from GUVNL. With the Commissioning SUGEN project from October/November 2008, the requirement of Surat will be mainly met from SUGEN and the balance from GUVNL. The energy available from each source during the control period is given in Table 4.76 below:

Table 4.76

Energy Available

Sl.No.	Source	2008-09	2009-10	2010-11
1.	TPL-G (SUGEN) (Net)	171	3484	3639
2.	GUVNL	3093	-	-
3.	Wind Energy	127	205	292
	Total	**3391**	**3689**	**3931**

The net energy available from SUGEN as projected by TPL is as below:

Year	(MU)
2008-09	203
2009-10	5644
2010-11	5845

Though entire requirement of Surat area could be met from SUGEN, certain flow is considered from SUGEN to Ahmedabad during 2008-09 by TPL as TPL (G), APP, TPL (G) SUGEN and GUVNL system operates integrated.

Power Purchase

SUGEN is own generation of TPL though the tariff is fixed by CERC as an inter-state project. The cost projected by TPL for SUGEN is considered as the cost of power from SUGEN and this is discussed in para 4.2 above. The cost of power from SUGEN is considered under own generation. The other source is purchase from GUVNL. TPL has to purchase certain quantum of energy from renewable energy sources (wind energy) as

explained in para 4.4.3.1 which is included in the power purchase. The quantum of power to be purchased from GUVNL and the cost is given in Table 4.77

Table 4.77

Power Purchase Cost

Sl.No.	Source	2008-09	2009-10	2010-11
	GUVNL			
1	Energy purchase (MU)	3093	-	-
2	Rate per unit Rs./kWh.	3.10	-	-
3	Cost (Rs. crore)	958.83	-	-
	SUGEN			
1	Energy purchase (MU)	171	3484	3639
2	Rate per unit Rs./kWh.	3.10	2.98	2.93
3	Cost (Rs. crore)	53.01	1038.23	1066.23
	Wind Energy			
1	Energy purchase (MU)	127	205	292
2	Rate per unit Rs./kWh.	3.51	3.51	3.51
3	Cost (Rs. crore)	44.58	71.96	102.49

The power purchase cost is arrived at Rs.3.10/kWh, as considered by TPL for 2008-09. Any variation in the price could be claimed by TPL under FPPPA.

4.5.2 Employee expenses

The TPL has projected the employee expenses inrespect of Surat area for the control period as shown in the Table 4.78 below:

Table 4.78

Employee cost projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Employee expenses	30.18	33.34	36.92

The employee cost for the year 2007-08 (actual) was Rs. 31.77 crore. Against this TPL has projected Rs. 30.18 crore for the year 2008-09 less than actual for the year 2007-08. The increase in the projection for the year 2009-10 is 10% and the increase in the projection for the year 2010-11 is about 11%. The Commission has analysed the actual employee cost of TPL as an integrated utility for Ahmedabad and Surat areas for the years 2004-05 to 2007-08. The CAGR for the 3 year period worked out to about 2%. The actual employee cost was Rs. 31.77 crore during 2007-08.

The annual increase in most of the utilities is in the order of 5 to 6%. As such a 6% increase P.A. over the employee cost of Rs. 31.77 crores for the year 2007-08 is considered reasonable towards increase in pay and allowances and inflation.

The employee cost with 6% escalation over the actuals for 2007-08 (base year) is worked out for the control period as given in the Table 4.79 below.

Table 4.79
Employee cost as approved for the control period 2008-11 in respect of Surat area

(Rs. crore)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
Employee cost	31.77	33.68	35.70	37.84

The Commission accordingly approves the employee cost at Rs. 33.68 crore for 2008-09, Rs. 35.70 crore for 2009-10 and Rs. 37.84 crore for 2010-11.

4.5.3 Repairs and Maintenance (R&M) expenses

The TPL has projected the R&M expenses for Surat area for the control period as detailed in the Table 4.80 below.

Table 4.80
R&M expenses projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
R&M expenses	29.57	32.76	36.36

The TPL has projected the R&M expenses with annual increase of about 11% during the control period.

The Commission has obtained the actual R&M cost which was Rs. 25.01 crore for the year 2007-08 (base year). The actual R&M cost of TPL (Generation and distribution) for the years 2004-05 to 2007-08 has been analyzed. The compounded annual growth rate was 3.06%. Considering the expansion proposed for the distribution network and to improve the quality of supply to consumers during the control period the Commission approves 6% increase P.A. in R&M expenses for the control period.

The R&M cost with the approved annual increase of 6% P.A. is worked out as detailed in the Table 4.81 below.

Table 4.81
R&M expenses approved for the control period 2008-11

(Rs. crore)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
R&M expenses	25.01	26.51	28.10	29.79

The Commission, accordingly approves the R&M expenses at Rs. 26.51 crore for 2008-09, Rs. 28.10 crore for 2009-10 and Rs. 29.79 crore for 2010-11.

4.5.4 Administration and General (A&G) expenses

The TPL projected the A&G expenses for the control period as detailed in the Table –4.82 below.

Table 4.82
A&G expenses projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
A&G expenses	25.70	28.47	31.60

The TPL has projected the A&G expenses with annual increase of about 11% for the control period.

The Commission has obtained the A&G expenses for the year 2007-08 (Actual) which were Rs. 25.56 crore. The A&G expenses for the TPL-Distribution Ahmedabad and Surat areas for the years 2004-05 to 2007-08 were analysed. The increase recorded during the period is insignificant. The actual A&G expenses which were Rs. 58.44 crores for both the areas included Rs. 5.24 crore towards donation charges which cannot be considered as a legitimate charge of electricity business. Excluding this donation charge the A&G expenses for 2007-08 were determined at Rs. 53.20 crore for the base year 2007-08 and the proportionate cost works out to Rs. 23.25 crore for the Surat area. The Commission considers 6% annual increase over the actual for 2007-08 during the control period 2008-11 and they are worked out as detailed in the Table 4.83 below.

Table 4.83

A&G expenses approved for the control period 2008-11

(Rs. crore)

Particulars	2007-08 (A)	2008-09	2009-10	2010-11
A&G expenses	23.25	24.65	26.12	27.69

The Commission, accordingly approves the A&G expenses at Rs. 24.65 crore for 2008-09, Rs. 26.12 crore for 2009-10 and Rs. 27.69 crore for 2010-11.

4.5.5 Capital expenditure

The TPL has projected Rs. 1319.03 crore towards capital expenditure for the control period 2008-11. The details are given in the Table 4.84 below.

Table 4.84

Capital expenditure projected for Surat area for the control period 2008-11

(Rs. crore)

	Particulars	2008-09	2009-10	2010-11
I	**Surat Area**			
	EHV Network (66 kV & 220 kV)	2.16	14.58	1.34
	HV Network	42.11	43.30	32.60
	LT Network	17.47	17.21	17.13
	Metering	15.92	19.97	19.02
	Customer care, IT etc	17.15	6.19	3.11
	220 kV line	115.07	-	-
	Total Surat Area	**209.88**	**101.25**	**73.20**

TPL has mentioned that it has plans to undertake capital investment for augmentation and upgradation of distribution network to meet the requirement of power and provide reliable power. It has planned investments at an optimal level to avoid increase in technical losses. The proposed investments include allocation for increased load growth, reliability, renovation and replacement for system upgradation. It also includes investments for improving the safety conditions, supporting infrastructure, reactive power compensation

and special projects for distribution automation and introduction of technical advancement. These special projects are aimed at enhancing reliability, improved customer services, reduction in operating cost, network optimization etc. TPL has submitted that the proposed capital investments will be necessary for maintaining the projected efficiency parameters and requested for approval of the proposed capital expenditure for the control period.

The Commission has examined the capital investment proposed by TPL to meet the load growth, quality of supply, reliability etc and approves the capital expenditure as proposed by the TPL for Surat area for the control period.

4.5.6 Interest charges

The TPL has projected the interest expenses for the Surat area as shown in the Table 4.85 below.

Table 4.85

Interest charges projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Interest charges	65.61	66.27	60.90

The TPL has not furnished any supporting details of loans existing and the borrowings proposed for Surat area separately during the control period. The Commission has analysed the interest charges for the TPL Distribution both Ahmedabad and Surat areas and approved the interest charges at Rs. 99.91 crore for 2008-09, Rs. 137.69 crore for 2009-10 and Rs. 156.73 crore for 2010-11. These interest charges are now apportioned to Surat area in proportion to the approved capital expenditure for the respective areas. The apportioned interest charges for the control period are given in the Table 4.86 below:

Table 4.86

Apportioned interest expenses for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Capex (Total)	**715.48**	**549.23**	**438.99**
Ahmedabad area	505.26	447.98	365.79
Surat area	209.88	101.25	73.20
Interest charges (Total)	**99.91**	**137.69**	**156.73**
Apportioned to :			
Surat area	**29.32**	**25.38**	**26.13**

The Commission approves the interest charges at Rs. 29.32 crore for 2008-09, Rs. 25.38 crore for 2009-10 and Rs. 26.13 crore for 2010-11 for the Surat Area for the control period.

4.5.6.2 Interest on Security Deposit

The TPL has included the interest on security deposit in the interest on term loan while furnishing the details separately for Ahmedabad distribution area and Surat distribution area.

The interest on security deposit has been determined for the TPL-D as a whole in para 4.4.8.1. The interest on security deposit is now apportioned between Ahmedabad and Surat area in proportion of the interest charges projected by TPL. The apportioned interest on security deposit for the control period is given in the Table 4.86 -A below:

Table 4.86 -A
Apportioned interest on Security Deposits for the Control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Interest charges projected			
Ahmedabad area	66.00	99.58	112.32
Surat Area	65.61	66.27	60.90
Total for Distribution	**131.61**	**165.85**	**173.22**
Interest on security deposit approved for TPL-D	**15.40**	**16.19**	**16.98**
Apportioned to:			
Ahmedabad	7.72	9.72	11.01
Surat area	**7.68**	**6.47**	**5.97**

The Commission accordingly approves the interest on security deposits at Rs.7.68 crore for 2008-09 Rs.6.47 crore for 2009-10 and Rs. 5.97 crores for 2010-11 for Surat distribution area.

4.5.7 Interest on working capital

The TPL has projected Rs. 100.62 crore towards interest on working capital for the control period for the Surat area and as shown in the Table 4.87 below:

Table 4.87
Interest on working capital projected for the control period 2008-11 for Surat area

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Interest on working capital	31.39	34.00	35.23

The TPL has not furnished the supporting details as to how it has been worked out TPL simply apportioned the interest on working capital projected for the TPL – Distribution into Ahmedabad area and Surat area.

The interest on working capital has been worked out as per GERC norms as given in the Table 4.88 below.

Table 4.88
Interest on working capital approved for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
O&M expenses	7.02	7.49	7.94
Spares	2.86	3.87	4.78
Receivables	220.21	231.96	243.84
Working capital	230.14	243.32	256.56
Interest on WC @ 10.25%	23.59	24.94	26.30

The Commission accordingly approves the interest on working capital at Rs. 23.59 crore for 2008-09, Rs. 24.94 crore for 2009-10 and Rs. 26.30 crore for 2010-11.

4.5.8 Depreciation

The TPL has projected Rs. 126.55 crore towards depreciation for the control period for the Ahmedabad Area as detailed in the Table 4.89 below.

Table 4.89
Depreciation projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Depreciation	37.14	43.42	45.99

The depreciation charges claimed as per the rates specified by CERC.

The Commission approves the depreciation charges for the control period as projected by TPL.

4.5.9 Return on equity

The TPL has projected the return on equity for the Distribution – Ahmedabad area as detailed in the Table 4.90 below.

Table 4.90
Return on equity projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Return on equity	69.70	76.40	79.48

The TPL has not furnished any supporting details of opening equity and equity addition towards Capex separately for Ahmedabad area and Surat area. The Commission has analyzed the return on equity for the TPL – Distribution both Surat and Ahmedabad areas and approved the return on equity at Rs. 181.15 crore for 2008-09, Rs. 206.41 crore for 2009-10 and Rs. 224.96 crore for 2010-11. The return on equity is now apportioned between Surat and Ahmedabad area in proportion of the return on equity projected by TPL. The apportioned return on equity for the control period is given in the Table 4.90 below:

Table 4.91
Apportioned return on equity for the control period 2008-11

(Rs. Crore)

Particulars	2008-09	2009-10	2010-11
Return on equity projected by TPL			
Ahmedabad area	112.61	131.48	147.50
Surat area	69.70	76.40	79.48
Total for Distribution	**182.31**	**207.88**	**226.98**
Return on equity approved by Commission for TPL Distribution	181.15	206.41	224.96
Return on equity apportioned to			
Surat area	**69.26**	**75.86**	**78.77**

The Commission accordingly approves the return on equity at Rs. 69.26 crore for 2008-09, Rs. 75.86 crore for 2009-10 and Rs. 78.77 crore for 2010-11 for the Surat area.

4.5.10 Tax on income

The TPL has projected the tax on income for the control period for Surat area as detailed in the Table 4. 92 below.

Table 4.92
Income tax projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Income tax	35.89	39.34	40.92

The TPL has claimed the income tax considering the return on equity as a post tax regulated return. As per Regulations 66 of GERC (Terms and Conditions of Tariffs) Regulations, 2005 tax is allowable on the approved return. The tax is worked out as detailed in the Table 4.93 below.

Table 4.93
Income tax approved for the control period 2008-11 in respect of Surat area

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
ROE approved	69.26	75.86	76.77
Income tax at 33.99%	23.54	25.78	26.09

The Commission, accordingly approves the provision of tax at Rs. 23.54 crore for 2008-09, Rs. 25.78 crore for 2009-10 and Rs. 26.09 crore for 2010-11.

4.511 Provision for bad debts

The TPL has projected Rs. 14.48 crore for the control period for Ahmedabad area as detailed in the Table 4.94 below.

Table 4.94
Provision for bad debts projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Provision for bad debts	2.76	2.99	3.09

The projected provision works out to 0.23% of the proposed revenue. The Commission considers 0.10% of the revenue projected towards bad debts. The provision is accordingly worked out as detailed in the Table –4.95 below.

Table 4.95
Provision for bad debts approved for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Provision for bad debts	1.22	1.27	1.36

The Commission, accordingly approves the provision for bad debts at Rs. 1.22 crore for 2008-09, Rs. 1.27 crore for 2009-10 and Rs. 1.36 crore for 2010-11.

4.5.12 Contingency reserve

The TPL has projected Rs. 19.96 crore towards contingency reserve for the control period 2008-11 for Ahmedabad area as detailed in the Table 4.96 below.

Table 4.96
Contingency reserve projected for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Contingency reserve	5.67	6.89	7.40

TPL has projected this reserve at 0.5% of the GPA at the beginning of the year.

The TPL has referred to the Commission's letter dated December 18, 2007 where in it was mentioned that contingency reserve would be considered in the next ARR in accordance with the Regulations. The GERC (Terms and Conditions of Tariff) Regulations, 2005 did not specify any contingency reserve on a percentage basis on the gross fixed assets as claimed by the TPL. The TPL has also not given any justification for providing such contingency reserve. As per Regulation 66 of GERC (Terms and Conditions of Tariff) Regulations, 2005 the Commission may allow special allocation to meet the requirement of likely unexpected emergent circumstances, which cannot be covered under normal business activities which shall be invested and kept separately from its income as per the directions of the Commission.

The Commission considers a token provision of Rs.0.40 crore each year during the control period 2008-11 as detailed below to cover the requirement of likely unexpected circumstances and any utilization from this fund should be intimated to the Commission.

Table 4.96-A
Contingency reserve approved for the control period 2008-11

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Contingency reserve	**0.40**	**0.40**	**0.40**

The Commission approves the contingency reserve at Rs. 0.40 crore for 2008-09, Rs. 0.40 crore for the year 2009-10 and Rs. 0.40 crore for 2010-11.

4.5.13 Non tariff income

The TPL has projected the non-tariff income at Rs. 56.48 crore for the control period as detailed in the Table 4.97 below.

Table 4.97
Non-tariff income projected for the control period

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Non – tariff income	18.19	18.82	19.47

TPL has stated that it has estimated the non-tariff income from sources like meter rent, street light maintenance, sale of scrap, delayed payment charges, bad debt recovery etc. The projected increase is about 4% P.A.

The Commission has examined the non-tariff income actual for the year 2007-08 which was Rs. 97.61 crore for the integrated TPL. The proportionate amount for Surat area works out to Rs. 25.34 crore. The composite growth rate of sales and consumers is about 5.5%. The Commission therefore considers annual increase of 5.5% over the actuals for 2007-08.

The non-tariff income has been worked out as detailed in the Table 4.98 below.

Table 4.98
Non-tariff income approved for the control period

(Rs. crore)

Particulars	2007-08(A)	2008-09	2009-10	2010-11
Non – tariff income	25.34	26.73	28.20	29.76

The Commission approves the non-tariff income at Rs. 26.73 crore for 2008-09, Rs. 28.20 for 2009-10 and Rs. 29.76 crore for 2010-11.

4.5.14 Revenue from existing tariff

The TPL has projected the revenue from existing tariff for Surat area for the control period as detailed in the Table 4.99 below.

Table 4.99
Revenue from existing tariff projected for the control period

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Sales revenue	1215.63	1267.33	1353.77

However, the expected revenue from existing tariff on the basis of sales approved by the Commission is worked out as detailed in the Table 4.96 below.

Table 4.99A
Revenue from existing tariff approved for the control period

(Rs. crore)

Particulars	2008-09	2009-10	2010-11
Sales revenue	1215.65	1271.27	1355.68

The category wise sales and revenue are given in the Table 4.100 below.

Table 4.100

Category wise sales and revenue approved for Surat area for the control period 2008-11

Category	2008-09			2009-10			2010-11		
	Sales(MU)	Average Tariff Rs./KWh	Revenue (Rs.Crores)	Sales(MU)	Average Tariff Rs./KWh	Revenue (Rs.Crores)	Sales(MU)	Average Tariff Rs./KWh	Revenue (Rs.Crores)
Residential	556	3.18	176.81	597	3.18	189.85	642	3.19	204.80
Commercial	444	4.33	192.25	477	4.33	206.54	516	4.33	223.43
LTP	1695	3.64	616.98	1812	3.64	659.57	1929	3.63	700.23
LTMD	228	4.04	92.11	249	4.03	100.35	271	4.04	109.48
HTMD-I	202	4.10	82.82	211	4.13	87.14	220	4.14	91.08
HTMD-II	35	4.25	14.88	37	4.24	15.69	39	4.24	16.54
GLP	22	3.17	6.97	24	3.17	7.61	26	3.17	8.24
St. Light		3.24	0.00		3.24	0.00		3.24	0.00
Temporary	4	4.70	1.88	4	4.70	1.88	4	4.70	1.88
Agriculture		0.65	0.00		0.67	0.00		0.66	0.00
DOE		8.90	0.00			0.00		8.90	0.00
FPPPA			30.95			2.65			
Total	**3186**	**3.82**	**1215.65**	**3411**	**3.73**	**1271.27**	**3647**	**3.72**	**1355.68**

The Commission accordingly approves the revenue from existing tariff at Rs. 1215.65 crore for 2008-09, Rs. 1271.27 crore for 2009-10 and Rs. 1355.68 for 2010-11.

4.5.15 Summary of revenue requirement

The summary of revenue requirement of TPL –Distribution for the control period 2008-11 as projected by TPL and as analyzed and approved in the preceding paragraphs is given in the Table 4.101 below.

Table 4.101

Revenue requirement of TPL-D Surat as projected by TPL and as approved for the control period 2008-11

(Rs. crores)

S.No.	Particulars	Projected by TPL			Approved by the Commission		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
1	TOTAL - Power Purchase	1082.56	1099.34	1155.17	1056.42	1110.19	1168.72
	GUVNL				958.83	-	-
	Wind Energy				44.58	71.96	102.49
	SUGEN				53.01	1038.23	1066.23
2	Employee Expenses	30.18	33.34	36.92	33.68	35.70	37.84
3	R & M Expenses	29.57	32.76	36.36	26.51	28.10	29.79
4	A & G Expenses	25.70	28.47	31.60	24.65	26.12	27.69
5	Depreciation	37.14	43.42	45.99	37.14	43.42	45.99
6	Interest on loans	65.61	66.27	60.90	29.32	25.38	26.13
7	Interest on Security Deposit				7.68	6.47	5.97
8	Interest on Working Capital	31.39	34.00	35.23	23.59	24.94	26.30
9	Return on equity	69.70	76.40	79.48	69.26	75.86	78.77
10	Provision for bad debts	2.76	2.99	3.09	1.22	1.27	1.36
11	Contingency Reserve	5.67	6.89	7.40	0.40	0.40	0.40
12	Income Tax	35.89	39.34	40.92	23.54	25.78	26.09
13	**Total Revenue Expenditure**	**1416.17**	**1463.22**	**1533.06**	**1333.41**	**1403.63**	**1475.05**
14	Less: Non -Tariff Income	18.19	18.82	19.47	26.73	28.20	29.76
15	**ARR (13-14)**	**1397.98**	**1444.40**	**1513.59**	**1306.68**	**1375.43**	**1445.29**
16	Revenue with existing Tariff	1215.63	1267.33	1353.77	1215.65	1271.27	1355.68
17	Revenue Gap(15-16)	182.35	177.07	159.82	91.03	104.16	89.61
18	Sales (mu)	3188	3402	3629	3186	3411	3647
19	**Average Cost (Rs./KWh)**	**4.44**	**4.30**	**4.22**	**4.19**	**4.12**	**4.04**
20	**Average Cost after Non-tariff income(Rs./KWh)**	**4.39**	**4.25**	**4.17**	**4.10**	**4.03**	**3.96**

4.6 Multi Year Tariff Framework

4.6.1 The Multi Year Tariff framework Regulations of 2007 issued by the Commission clearly elaborated the controllable and uncontrollable factors and the mechanism for sharing the gains or losses on account of controllable and uncontrollable factors in regulations 9.6, 10 and 11.

4.6.2 In this chapter the approach is analysed separately for distribution business and for the retail supply business. The controllable and uncontrollable items in MYT are summarized in the Table below:

Classification of ARR items in Distribution business

Sl. No.	ARR Item	Controllable or Uncontrollable
1.	O&M Expenses (a) Employee cost (b) Repairs and maintenance (c) Admn. and general expenses	 Controllable Controllable Controllable
2.	Return on equity	Controllable
3.	Depreciation	Controllable
4.	Interest and finance charges	Controllable
5.	Interest on working capital	Controllable
6.	Tax on income	Uncontrollable
7.	Non-tariff income	controllable

4.6.3 In the performance review the true up will be permitted only in the case of uncontrollable items on availability of data as per actuals. Regarding controllable items the Commission will review the gains and losses on each item and make appropriate adjustments, whenever required. A statement of gains and losses for each controllable item will be presented in the filing for the next control period.

4.6.4 Any variations in revenue recovery over approved revenue requirements will be adjusted in the subsequent control period with financing cost at average rate of borrowing during the year to which the variation relate.

4.6.5 Loss Reduction

Licensees are required to file a loss reduction trajectory for each year of the control period, while duly complying with the licensees' standards of performance.

4.6.6 Cost of Power Purchase

In addition to the items mentioned above, the retail supply business shall include the cost of power purchase, an 'uncontrollable' item. While approving the cost of power procurement, the Commission shall determine the quantum of electricity to be procured, consistent with power procurement plan, from various sources of supply in accordance with the principle of merit order scheduling and dispatch, based on a ranking of all approved sources of supply in the order of their respective variable costs, with certain exceptions, as in the case non-conventional energy (NCE) projects, accorded by various general and specific orders of the Commission the status of 'must-run' projects. In order to arrive at the quantum and cost of power procurement, the Commission shall adopt the sales forecast, the distribution losses trajectory and the power procurement plan approved as part of the resource plan of the licensee.

Sabarmati C.Station (60 MW)

Sl.No.	Item	Derivation	Unit	2008-09	2009-10	2010-11
1	Generation (Gross)	A	MU	486.23	493.22	472.46
2	Heat Rate	B	Kcal/kWh	3735	3700	3675
3	Specific Oil Consumption	C	gm/kWh	1.45	1.45	1.45
4	Calorific Value of Oil	D	KCal/Kg.	9766	9766	9766
5	Calorific Value of Coal	E	KCal/Kg.	5150	5150	5150
6	Overall Heat	F=(A * B)	G. Cal.	1816069	1824914	1736291
7	Heat from Oil	G=(A*C*D)/1000	G.Cal	6885	6984	6690
8	Heat from Coal	H=(F-G)	G.Cal	1809184	1817930	1729600
9	Actual Oil Consumption	I =A*C	MT	705	715	685
10	Actual Coal Consumption	J=(H*1000/E)	MT	351298	352996	335845
11	Indigenous Coal including transit loss of 1.4%	J1=J*0.72/0.986	MT	256526	257766	245242
12	Imported Coal	J2=J*0.28	MT	98363	98839	94037
13	Cost of Oil per MT	K	Rs./MT	18053	18053	18053
14	Cost Of Indigenous Coal Per MT	L1	Rs./MT	2757	2757	2757
15	Cost Of Imported Coal Per MT	L2	Rs./MT	3035	3035	3035
16	Total Cost of Oil	$M=I*K/10^5$	Rs. Lakhs	127.28	129.11	123.68
17	Cost of Indigenous coal	$N1=J\ 1*\ L1\ /\ 10^5$	Rs. Lakhs	7072.42	7106.61	6761.31
18	Cost of Imported Coal	$N2=J2\ *\ L2\ /\ 10^5$	Rs. Lakhs	2985.33	2999.76	2854.01
19	Cost of Coal	N=N1+N2	Rs. Lakhs	10057.74	10106.37	9615.32
20	Total Fuel Cost	O = M + N	Rs. Lakhs	10185.02	10235.48	9738.99
21	Fuel cost / Unit (Gross)	O/(A*10)	Rs/KWh	2.09	2.08	2.06
22	Auxiliary consumption (percent)	P	%	9.41	9.41	9.41
23	Auxiliary consumption	Q = (A*P) / 100	MU	45.75	46.41	44.46
24	Net Generation	R = A - Q	MU	440.48	446.81	428.00
25	Fuel cost / Unit (Net)	O/(R*10)	Rs / KWh	2.31	2.29	2.28
	Ratio of Indigenous and Imported Coal = 72:28					

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Sabarmati D.Station (120 MW)

Sl.No.	Item	Derivation	Unit	2008-09	2009-10	2010-11
1	Generation (Gross)	A	MU	912.34	981.51	939.98
2	Heat Rate	B	Kcal/kWh	2565	2565	2565
3	Specific Oil Consumption	C	gm/kWh	1.45	1.45	1.45
4	Calorific Value of Oil	D	KCal/Kg.	9766	9766	9766
5	Calorific Value of Coal	E	KCal/Kg.	5150	5150	5150
6	Overall Heat	F=(A * B)	G. Cal.	2340152	2517573	2411049
7	Heat from Oil	G=(A*C*D)/1000	G.Cal	12919	13899	13311
8	Heat from Coal	H=(F-G)	G.Cal	2327233	2503674	2397738
9	Actual Oil Consumption	I =A*C	MT	1323	1423	1363
10	Actual Coal Consumption	J=(H*1000/E)	MT	451890	486150	465580
11	Indigenous Coal including transit loss of 1.4%	J1=J*0.72/0.986	MT	329980	354998	339977
12	Imported Coal	J2=J*0.28	MT	126529	136122	130362
13	Cost of Oil per MT	K	Rs./MT	18053	18053	18053
14	Cost Of Indigenous Coal Per MT	L1	Rs./MT	2757	2757	2757
15	Cost Of Imported Coal Per MT	L2	Rs./MT	3035	3035	3035
16	Total Cost of Oil	$M=I*K/10^5$	Rs. Lakhs	238.82	256.93	246.06
17	Cost of Indigenous coal	$N1=J\ 1*\ L1\ /\ 10^5$	Rs. Lakhs	9097.56	9787.30	9373.18
18	Cost of Imported Coal	$N2=J2\ *\ L2\ /\ 10^5$	Rs. Lakhs	3840.16	4131.31	3956.50
19	Cost of Coal	N=N1+N2	Rs. Lakhs	12937.72	13918.61	13329.68
20	Total Fuel Cost	O = M + N	Rs. Lakhs	13176.54	14175.54	13575.73
21	Fuel cost / Unit Gross	O/(A*10)	Rs/KWh	1.44	1.44	1.44
22	Auxiliary consumption (percent)	P	%	8.73	8.73	8.73
23	Auxiliary consumption	Q = (A*P) / 100	MU	79.65	85.69	82.06
24	Net Generation	R = A - Q	MU	832.69	895.82	857.92
25	Fuel cost / Unit Net	O/(R*10)	Rs / KWh	1.58	1.58	1.58
	Ratio of Indigenous and Imported Coal = 72:28					

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Sabarmati E. Station (110 MW)

Sl.No.	Item	Derivation	Unit	2008-09	2009-10	2010-11
1	Generation (Gross)	A	MU	891.62	700.63	972.68
2	Heat Rate	B	Kcal/kWh	2675	2675	2525
3	Specific Oil Consumption	C	gm/kWh	1.45	1.45	1.45
4	Calorific Value of Oil	D	KCal/Kg.	9766	9766	9766
5	Calorific Value of Coal	E	KCal/Kg.	5150	5150	5150
6	Overall Heat	F=(A * B)	G. Cal.	2385084	1874185	2456017
7	Heat from Oil	G=(A*C*D)/1000	G.Cal	12626	9921	13774
8	Heat from Coal	H=(F-G)	G.Cal	2372458	1864264	2442243
9	Actual Oil Consumption	I =A*C	MT	1293	1016	1410
10	Actual Coal Consumption	J=(H*1000/E)	MT	460671	361993	474222
11	Indigenous Coal including transit loss of 1.4%	J1=J*0.72/0.986	MT	336393	264336	346288
12	Imported Coal	J2=J*0.28	MT	128988	101358	132782
13	Cost of Oil per MT	K	Rs./MT	18053	18053	18053
14	Cost Of Indigenous Coal Per MT	L1	Rs./MT	2757	2757	2757
15	Cost Of Imported Coal Per MT	L2	Rs./MT	3035	3035	3035
16	Total Cost of Oil	$M=I*K/10^5$	Rs. Lakhs	233.40	183.40	254.62
17	Cost of Indigenous coal	$N1=J\ 1*\ L1\ /\ 10^5$	Rs. Lakhs	9274.35	7287.73	9547.16
18	Cost of Imported Coal	$N2=J2\ *\ L2\ /\ 10^5$	Rs. Lakhs	3914.79	3076.22	4029.94
19	Cost of Coal	N=N1+N2	Rs. Lakhs	13189.14	10363.95	13577.09
20	Total Fuel Cost	O = M + N	Rs. Lakhs	13422.54	10547.35	13831.71
21	Fuel cost / Unit Gross	O/(A*10)	Rs/KWh	1.51	1.51	1.42
22	Auxiliary consumption (percent)	P	%	8.73	8.73	8.73
23	Auxiliary consumption	Q = (A*P) / 100	MU	77.84	61.16	84.91
24	Net Generation	R = A - Q	MU	813.78	639.47	887.77
25	Fuel cost / Unit Net	O/(R*10)	Rs / KWh	1.65	1.65	1.56
	Ratio of Indigenous and Imported Coal = 72:28					

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Sabarmati F.Station (110 MW)

Sl.No.	Item	Derivation	Unit	2008-09	2009-10	2010-11
1	Generation (Gross)	A	MU	880.92	909.06	896.24
2	Heat Rate	B	Kcal/kWh	2715	2715	2715
3	Specific Oil Consumption	C	gm/kWh	1.45	1.45	1.45
4	Calorific Value of Oil	D	KCal/Kg.	9766	9766	9766
5	Calorific Value of Coal	E	KCal/Kg.	5150	5150	5150
6	Overall Heat	F=(A * B)	G. Cal.	2391698	2468098	2433292
7	Heat from Oil	G=(A*C*D)/1000	G.Cal	12474	12873	12691
8	Heat from Coal	H=(F-G)	G.Cal	2379223	2455225	2420600
9	Actual Oil Consumption	I =A*C	MT	1277	1318	1300
10	Actual Coal Consumption	J=(H*1000/E)	MT	461985	476743	470019
11	Indigenous Coal including transit loss of 1.4%	J1=J*0.72/0.986	MT	337352	348129	343219
12	Imported Coal	J2=J*0.28	MT	129356	133488	131605
13	Cost of Oil per MT	K	Rs./MT	18053	18053	18053
14	Cost Of Indigenous Coal Per MT	L1	Rs./MT	2757	2757	2757
15	Cost Of Imported Coal Per MT	L2	Rs./MT	3035	3035	3035
16	Total Cost of Oil	$M=I*K/10^5$	Rs. Lakhs	230.60	237.96	234.61
17	Cost of Indigenous coal	$N1=J\ 1*\ L1\ /\ 10^5$	Rs. Lakhs	9300.80	9597.90	9462.55
18	Cost of Imported Coal	$N2=J2\ *\ L2\ /\ 10^5$	Rs. Lakhs	3925.95	4051.36	3994.23
19	Cost of Coal	N=N1+N2	Rs. Lakhs	13226.75	13649.26	13456.78
20	Total Fuel Cost	O = M + N	Rs. Lakhs	13457.35	13887.23	13691.38
21	Fuel cost / Unit Gross	O/(A*10)	Rs/KWh	1.53	1.53	1.53
22	Auxiliary consumption (percent)	P	%	8.73	8.73	8.73
23	Auxiliary consumption	Q = (A*P) / 100	MU	76.90	79.36	78.24
24	Net Generation	R = A - Q	MU	804.02	829.70	818.00
25	Fuel cost / Unit Net	O/(R*10)	Rs / KWh	1.67	1.67	1.67
	Ratio of Indigenous and Imported Coal = 72:28					

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Vatva CCPP (100 MW)

Sl.No.	Item	Derivation	Unit	2008-09	2009-10	2010-11
1	Generation (Gross)	A	MU	731.81	770.62	781.65
2	Heat Rate	B	Kcal/kWh	1950	1950	1950
3	Calorific value of gas	C	Kcal/SCM	8305	8305	8305
4	Over All heat	D=A*B	G.Cal	1427030	1502709	1524218
5	Gas Consumption	E=D/C	M. SCM	171.83	180.94	183.53
6	Price of Gas	F	Rs./SCM	8.10	8.10	8.10
7	Total Cost of Gas	G=E*F*10	Rs.lakhs	13909.46	14647.12	14856.76
8	% of Auxiliary consumption	H	%	2.92	2.92	2.92
9	Auxiliary consumption	I=A*H/100	MU	21.37	22.50	22.82
10	Net Generation	J=A-I	MU	710.44	748.12	758.83
11	Fuel cost / Unit Gross	K=G/A/10	Rs./kWh	1.90	1.90	1.90
12	Fuel cost / Unit Net	L=G/J/10	Rs./kWh	1.96	1.96	1.96

Note: The heat rate and calorific value of coal in the statement are based on net calorific value.

Chapter 5

Tariff Philosophy and Design

5.1 Introduction – Tariff Philosophy

The Commission has been guided by the provisions of the Electricity Act, 2003, the National Electricity Policy (NEP), the National Tariff Policy (NTP), 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 NTP that 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.

5.2 Retail tariffs proposed by the TPL and decision of the Commission

It is submitted by TPL that they have for the first time attempted restructuring of the tariff categories taking into consideration certain widely recognized best practices for designing the tariffs. The basic principles followed while designing the tariffs are as under:

- Efficient use of electricity.
- Tariff rationalization.
- Efficient monitoring of usage and payment.
- Capacity to pay by the consumers.
- Uniformity of tariff structures in the license areas.

5.2.1 Based on the above TPL has proposed the following consumer categories for the control period.

Sl.No.	Category	Sl.No.	Category
	L T Category		**H T Category**
1.	Residential – Demand	1.	Industrial

2.	Residential – Non-Demand	2.	Commercial
3.	Residential pumping and common services – Demand		
4.	Residential pumping and common services – Non-Demand		
5.	Commercial - Demand		
6.	Commercial – Non-Demand		
7.	Industrial – Demand		
8.	Industrial – Non-Demand		
9.	Others (GLP, Agriculture, Street lighting, temporary etc.)		

5.2.2 Commission's View:

TPL has proposed restructuring the tariff categories common to Ahmedabad / Gandhinagar and Surat areas which have at present different tariff categories and tariffs. Restructuring of the tariff categories of consumers common to both Ahmedabad / Gandhinagar and Surat areas requires detailed examination. In view of the implications – on various categories of consumers - of tariff design by bringing in the consumers in the two areas to common categories, the Commission does not propose to make any major changes in tariff category at this stage and appropriate restructuring of tariff categories and design would be taken up later based on detailed analysis.

5.3 Uniform tariffs for Ahmedabad / Gandhinagar and Surat Areas

TPL has proposed introduction of uniform tariffs in Ahmedabad / Gandhingar and Surat areas in place of separate tariffs at present in the two areas. The proposal will be examined by the Commission in detail taking into consideration the difference in tariffs to different categories at present in the two areas, the impact of the uniform tariff on the various categories of consumers particularly in the present economic slow down and recession, and appropriate decision on introduction of uniform tariff in the two areas would be taken later.

5.4 Retail Supply Tariff

TPL in the MYT petition for the control period 2008-09 to 2010-11 has proposed the retail supply tariff for Ahmedabad / Gandhinagar and Surat areas on the basis of net revenue gap of Rs.412.63 crore for 2008-09, Rs.564.04 crore for the year 2009-10 and Rs.515.78 crore for the year 2010-11 of the control period and proposed an increase in tariff by 7.81% 2008-09, 8.9% during 2009-10 and 6.9% during 2010-11.

Later TPL has furnished the ARR and the revenue gap for Ahmedabad / Gandhinagar and Surat areas separately. The proposal are discussed below:

5.4.1 Ahmedabad / Gandhinagar area

TPL has projected a net revenue gap of Rs.230.29 crore for 2008-09, Rs.387.08 crore for the year 2009-10 and Rs.356.08 crore for the year 2010-11.

However, on detailed scrutiny of the revenue requirement filed by TPL, the Commission has arrived at revenue gap of Rs.13.91 crore for the year 2008-09, Rs.149.32 crore for the year 2009-10 and Rs.118.25 crore for the year 2010-11.

5.4.2 Surat Area

TPL has projected a net revenue gap of Rs.182.35 crore for 2008-09 , Rs.177.07 crore for the year 2009-10 and Rs.159.82 crore for the year 2010-11.

However, on detailed scrutiny of the revenue requirement filed by TPL, the Commissions has arrived at net revenue gap of Rs.91.03 crore for the year 2008-09, Rs.104.16 crore during 2009-10 and Rs.89.61 crore during 2010-11.

5.4.3 Commission's decision

Under clause 12.1 of the 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 heavy burden on the consumers. Hence, it shall be implemented with effect from 1st February 2009. The utility can recover only about 40% of the gap on annual basis, and other part of the gap 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 also 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 financial year have already passed.

It is seen that the revenue gap for the Ahmedabad / Gandhinagar area is Rs.13.91 crore during 2008-09, which could be covered by a modest increase in energy charges for some categories of consumers.

For the Surat area the gap is Rs.91.03 crore which is about 7.50% of the revenue. Bulk of consumption and revenue in Surat area comes from LT industry (small industry) - Diamond Polishing and Textiles - which are mostly export oriented and are affected by global economic slow down and recession.

The Commission has, therefore, decided to continue the existing tariff structure for 2008-09 with a modest increase in energy charges for some categories of consumers covering about 40% of the total gap of Ahmedabad / Gandhinagar and Surat areas together on an annual basis.

The actual gap for the year 2008-09 would, however, be arrived at based on the performance in the year 2008-09 and truing up. Keeping in view, the gap on truing up for the year 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, the Commission would take appropriate decision on the tariff for the year 2009-10.

The tariff schedule issued is Annexed.

The continuation of the existing tariff structure - with a modest increase in energy charges for some categories of consumers - for a few more months may not adversely affect the cash flow of the utility as the commission has already permitted the utility to recover increase, if any, in fuel costs and power purchase costs through FPPPA. The expenditure on power purchase constitutes about 80% of the total expenses and any increase in other expenses such as interest and finance charges, interest on working capital, O&M expenses and depreciation (non-cash expenditure item) which constitute about 20% of total expenses will have only marginal impact.

The licensee 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 the determination of retail supply tariff for the year 2009-10.

Chapter 6

Compliance of Directives and Fresh Directives

6.1 Compliance of earlier directives:

The Commission in its tariff order dated 31st July 2007, for the year 2007-08 had issued various directives to TPL.

TPL submitted a compliance report on the directives issued vide its letter dated 30th November 2007.

Commission's comments on the status of compliance of the directives by TPL and further directives are given below.

Directive 1: Submission of next ARR

TPL shall file the ARR petition for 2008-09, well in time (i.e.) by 30th November 2007.

It shall also be ensured that the ARR for generation, transmission and distribution segments are filed or shown separately to arrive at generation, transmission and distribution costs separately as required in section 62(2) of the Electricity Act 2003.

The TPL is also directed to submit audited annual accounts, function wise i.e. Generation (Power Station wise), Transmission, and Distribution (Area wise). Such accounts shall be submitted to the Commission within six months of the close of the financial year as laid down in Regulation No.4 of 2005 dated 30th March 2005 of the Commission.

Compliance:

The MYT petition for approval of annual revenue requirement and determination of wheeling charges and retail supply tariff for the control period 2008-09 to 2010-11 was submitted by TPL on 8th May 2008. The delay is explained due to the fact that MYT Regulations 2007 were notified on 20th December 2007 and the comprehension and preparation of the said petition took time, as it is the first petition under MYT Regulations.

Commission's comments:

The compliance is noted.

Directive 2: Introduction of MYT

The Commission proposes to introduce multi year tariff (MYT) from 2008-09. TPL shall finalize the Business Plan and relevant data required for preparation of filing of ARR for 2008-09 for implementation of MYT.

Compliance:

TPL submitted MYT petition for the control period 2008-09 to 2010-11 on 8th May 2008.

Commission's comments:

The petition for review of 2008-09 and ARR for 2009-10 shall be filed by the date approved by the Commission separately.

Directive 3: Quality of Service

TPL shall submit "Consumer Charter" for approval of the Commission within 3 months covering -

- Response time to attend to consumer complaints in respect of attending fuse off calls, different types of outages, defects in billing, releasing of new connections etc.
- Introduction of new services for benefit of consumers for providing quality service.

Compliance

Customer charter covering all the standards of services of power restoration, new connections and / or alterations of the existing services, in house and Independent Complaint Redressal Mechanism etc is submitted by the TPL to the Commission on 30th November 2007 at Annexure -1.

Commission's comments:

The TPL should give wide publicity to the "customer charter", after its approval by the Commission. The Commission has already issued "Distribution Standards of Performance Regulations".

Directive 4: Consumer Friendly Attitude

According to some objectors, consumer-friendly attitude is still lacking in TPL. The staff are reported to be self-opinionated and are said to need training in patience and tolerance. The response of staff over telephone is reported to be unhelpful. Agents are reported to be swarming the consumers at service centres, due to the complacent attitude of the staff. TPL should arrange proper orientation training for staff including a formal training as to how they should cultivate a consumer friendly attitude. A detailed report on the steps taken may be submitted to the Commission within three months.

Compliance:

The company is committed to enhance and improve its customer relationship. To enhance customer friendly attitudes, it has formally organized training programs for its staff/representatives who interact with the consumers directly. The Action taken report on orientation training to cultivate Customer Friendly Attitude is attached at Annexure 2.

Commission's comments:

The compliance is noted. TPL shall get a study conducted by an independent Agency (to be approved by the Commission) on the consumer satisfaction level in terms of quality of supply and service and submit the findings to the Commission by 30th September 2009.

Directive 5: Meters

TPL shall lay down appropriate procedure enabling consumers to install their own meters, if they so wish. TPL shall ensure that all defective / non functioning meters are replaced promptly.

Compliance:

We have laid down the procedures enabling the consumer to install his own meter. We have also ensured prompt replacement of all defective / non functioning meters.

Commission's comments:

A report on how many of the consumers opted to have their own meters during the period 01/04/2007 to 30/09/2008 and also defective / non functioning meters replaced during the same period should be submitted to the Commission by 31str March 2009.

Directive 6: Heat Rate for 'C' station

TPL reported that energy audit had been carried out by M/s Larsen & Turbo for determination of the best heat rate for 'C' station and its recommendations were implemented by the company.

There is no improvement in the heat rate for the above station, inspite of adoption of energy audit and the implementation of its recommendations. TPL should submit the above energy audit report and the implementation details to the Commission within 45 days.

Compliance:

The copy of the performance report for 'C' station prepared by L& T limited is attached as Annexure –3.

Commission's comments:

As per the performance report prepared by L&T, the design heat rate of the unit is 2410 Kcal/kWh and the test heat rate is 2903 Kcal at the time of test in 2002. But the actual heat rate for 'C' station is much higher than what is specified in the performance report. The heat rate should be gradually brought down to the normative level 2972 kCal/kWh by 2012-13 as indicated in tariff order for 2007-08 as follows:

FY 2008-09	3696 kCal / kWh
FY 2009-10	3514 kCal / kWh
FY 2010-11	3332KCal / kWh
FY 2011-12	3150 kCal / kWh
FY 2012-13	2972 kCal / kWh

Directive 7: Transit loss of coal

TPL is directed to make all out efforts to bring down the transit loss of indigenous coal to the level closer to the norm specified by the Commission.

Compliance:

TPL is committed to make all efforts to bring down the transit loss of indigenous coal closer to the norm specified by the Commission. In past, transit losses were in the range of 5-8% and the same have been brought down to the current level of 2.5-3% by vigorous efforts and better coordination with the public sector undertakings i.e Indian Railway and South Eastern Coalfields Limited. It may kindly be noted that in spite of its efforts, Indian Railway and / or the Coal Supply Company are not ready to compensate the Company for the transit losses. We continue our efforts to reduce it further to achieve the norms, but we apprehend that it will take long time to achieve the target.

Commission's comments

TPL shall take all the steps, necessary and gradually bring down the transit loss of indigenous coal to the level of 0.8% as laid down in the Regulations by 2012-13 as follows:

FY 2008-09	1.4%
FY 2009-10	1.2%
FY 2010-11	1.0%
FY 2011-12	0.9%
FY 2012-13	0.8%

Directive 8: Capital Expenditure

TPL should submit to the Commission, the details of any capital expenditure above Rs. Five crores with cost benefit analysis, before taking up work and after completion for scrutiny of the Commission. The Commission will dispose of capital expenditure proposals expeditiously.

Compliance

TPL did not report any compliance but mentioned that other directives are required to be complied with at the time of filing of next ARR Petition.

Commission's comments

TPL did not report any compliance of the above, even during the MYT ARR petition for 2008-09 to 2010-11.

In view of general criticism by various stakeholders that there is over investment by TPL which will only add to asset value without corresponding benefit to consumer, TPL shall get cost benefit analysis done for all major schemes of investment and submit the details to the Commission.

Directive 9 : Cost of supply for each consumer group

TPL, in its compliance to the earlier directives, mentioned that it is capturing the cost of supply voltage wise. These details should be submitted to the Commission by 30th September 2007.

TPL should also conduct the necessary studies, by taking the assistance of a Consultant, if necessary and arrive at the cost of supply for each consumer group, and submit a report to the Commission by 31st March 2008. Quarterly progress on this item may be submitted by 30th September and 31st December 2007.

Compliance

TPL has stated that it has started the work to calculate the cost of supply. However, the complexity of issues involved and consideration of the various factors require considerable time for conducting the same, and therefore request to grant time for compliance of the same.

Commission's comments

TPL should have completed the study to arrive at the cost of supply for each consumer group by now. The studies should be completed and a report should be submitted to the Commission by 31st March 2009. This is required to arrive at realistic cross subsidy levels and steps to reduce the cross subsidy.

Directive 10: Business Plan

TPL should submit a "Business Plan" for the next five years (2006-07 to 2011-12) by December 2007.

Compliance

TPL stated that it has started the work to prepare the business plan for five years. However, the complexity of issues involved and consideration of the various factors require considerable time for conducting the same, and therefore request to grant time for compliance of the same.

Commission's comments

Organization like TPL, with all the resources available, should have got a "Business Plan" prepared for the next five years. TPL should take the issue seriously and get the Business Plan prepared for the next five years (2008-09 to 2013-14) by March 31, 2009 and submit to the Commission.

Directive 11: Procurement Procedures

TPL should ensure that the procurement of major materials shall be in accordance with Corporate Governance norms and through competitive bidding.

Compliance

We have laid down the procedures for procurement of major materials in accordance with Corporate Governance norms and through competitive bidding.

Commission's comments

A copy of the procurement procedures / norms being followed by TPL may be submitted to the Commission for perusal.

Directive 12: In-house Consumer Complaint Redressal Mechanism

In-house consumer complaint redressal mechanism may be strengthened to register and dispose of the complaints quickly. Information about the number of complaints received through telephone/email/letter, and average time of disposal, number of pending complaints etc. may be compiled and submitted to the Commission on quarterly basis.

Compliance

The in-house Consumer Compliant Redressal Mechanism is already in place and the required information is reported to the Commission on regular basis as a part of the SOP report in the prescribed format.

Commission's comments

It may be ensured that the staff are courteous to consumers in resolving their complaints.

Directive 13: Testing of Disputed Meters

The testing of disputed meters may be carried out in the presence of the consumer or his authorized representative, at the discretion of the consumer, as laid down in Regulation No.11 of 2005 dated 31st March 2005 of the Commission. Such testing may also be got

done at accredited third party laboratories as notified by the Commission like ERDA, Baroda, EQDC, Gandhinagar and Yadav Measuring Instruments, Udaipur.

Compliance

The Company follows the procedures laid out in the GERC Regulations No. 11 of 2005 for the testing of disputed meters. It also allows the consumer to get his disputed meter being tested at accredited third party laboratory.

Commission's comments

Noted.

Directive 14: SUGEN Project

Based on the current status of the project TPL is requested to furnish Commissioning schedule (Commercial Operation) and also the evacuation arrangements and the completed costs of the project. The firm arrangement for sale of surplus power may also be furnished to the Commission.

Compliance

The Commission has sought the commissioning schedule (Commercial Operation) and completed cost along with the evacuation arrangements thereof. In this regard, we would like to inform the Commission that for the technical problems of force majure nature and for the reasons beyond its control, EPC Contractor is dealing the matter. We are in process of ascertaining the latest schedule and will submit the same in due course.

The company has incurred the cost of Rs. 2208 crore, till October 2007, towards the implementation of its SUGEN project. The company has also made substantial progress for evacuation of power. The current status of the evacuation arrangement is detailed in Annexure 4.

Commission's comments

The compliance is noted.

The status of the project and evacuation arrangement as on 31st March 2009 shall be furnished.

Directive 15: Open Access Charges - Wheeling Charges

TPL should furnish the complete relevant data like voltage-wise loss and expenses and average maximum demand in the next tariff petition for arriving at precise figure of wheeling charges.

Compliance

TPL has not reported any compliance but stated it will be complied with at the time of filing of the ARR petition. In the ARR petition, TPL stated that it does not have any segregation of cost and income between wheeling business and retail supply business. Considering that the detail segregation would require a lot of time and effort, it has worked out a macro level segregation of various components of the ARR in the petition.

Commission's comments

The segregation of costs between wheeling and supply shall be provided at the earliest.

6.2 Fresh Directives

Directive 1: Working out of Heat Rates

TPL stated that it has been working out the heat rates of generating stations based on NCV of coal. According to CERC and GERC Regulations, the heat rates are to be worked out based on GCV of coal fired. TPL shall keep this in view and in future, the heat rates should be worked out based on GCV of coal. NCV of coal has no relevance in the fuel cost calculations.

Directive 2: Separate Accounts function wise and area wise

TPL has to maintain separate accounts for its regulated business of generation, transmission and distribution of electricity in its licensed area of Ahmedabad /Gandhinagar and Surat duly certified by Chartered Accountants. These accounts have to be filed along with ARR every year.

Directive 3: Pilferage of energy

TPL has taken appreciable steps in reducing distribution losses. There is an impression that there is theft / pilferage of energy in Ahmedabad area. TPL shall take effective steps to arrest the leakage of energy and reduce the losses further.

Directive 4: Shifting of Open Access and WEG captive consumers to 66 kV

Some of the consumers have raised the issue that TPL is insisting on shifting of open access consumers / WEG captive consumers to 66 kV and charges are being collected from them. TPL is directed to furnish the details of amounts collected and how the amounts are accounted.

Directive 5: Voltage Fluctuations, Installation of Capacitors & Reactive Compensation

Some of the consumers have raised the issue regarding over-voltage during off peak hours. TPL argued that there are chances of over compensation in view of the non-switched type capacitors installed by the Consumers. The Consumers are required to install capacitor for maintaining 0.9 power-factor and also to reduce electricity bill by reducing reactive consumption by them.

TPL should monitor voltage level regularly for peak hours as well as off peak hours and keep the voltage level in accordance with the Electricity Supply Code. TPL should also have to rearrange the reactive compensations in distribution network in such a way that there are minimum fluctuations in voltage. TPL should guide consumers about appropriate quantum of capacitance required per kW of load to maintain 0.9 power-factor for their load pattern taking into account the latest requirement of distribution network. TPL should also revise circular in this regard for requirement of capacitors per kW of load from time to time.

The TPL is directed to get a load flow study conducted, identify the reasons for over voltages and take corrective action. If necessary, TPL may revise the norms for installation of capacitors. Action taken may be reported to the Commission by March 2009.

Directive 6: Delay in release of new connections

It is submitted by some of the consumers that due to non-availability of space for creation of new sub-stations on account of lower compensation being paid by them.

Action taken to ensure timely arrangement for obtaining space for new substations by paying reasonable compensation for the land.

It is also raised by some of the consumers that the existing infrastructure is not being loaded to the maximum permissible extent. The TPL shall conduct the study to what extent the existing system can be loaded and submit a report. TPL shall utilize the existing system to the extent possible, before considering additional installations.

Directive 7: Indefinites continuation of temporary connections

Some of the consumers have raised the issue of indefinite continuation of temporary connections. It is stated that 400 to 500 temporary connections are continuing spreading a period as long as 12-15 years.

TPL may looks into this and report by March 2009 to the Commission why the temporary services are being continued for such a long time collecting higher charges from consumers.

Chapter- 7

Fuel Price and Power Purchase Cost Adjustment

7.1 FUEL PRICE AND POWER PURCHASE COST ADJUSTMENT

The Commission has approved the formula for Fuel Price and Power Purchase Adjustment for TPL separately vide order under case No.915/2007 dated 31st July, 2007.

7.2 TPL in their MYT tariff petition have requested that with the segregation of business activities and costs into generation business TPL-G (APP) and TPL-G (SUGEN) and distribution business (TPL-D) as per provisions of MYT Regulation, the existing formula may be modified to account for the fuel price adjustment (FPP) in the generation business and power purchase adjustment (PPA) in the distribution business separately.

The Commission has examined the request of TPL and it is considered that the formula already approved covers both fuel price adjustment and power purchase adjustment components and could be applied to the extent required for fuel price adjustment or power purchase adjustment or both and it is not required to be modified.

The FPPPA formula approved by the Commission vide its order dated 31st July 2007 is reproduced below:

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

Where,

F_{OT}	Adjustment on account of variations in delivered cost of Fuel at TPL's thermal power stations (Rs. Millions).
PPP_1	Adjustment on account of variable cost of power purchased in (Rs. Millions).
PPP_2	Adjustment on account of fixed cost of power purchased in (Rs. Millions).
S.E. (in mU)	[Total sales in MU + Excess T&D loss in MU]

(a) Fuel cost adjustment of own generating stations:

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

where,

n	1 to k, the thermal power station in TPL
OTD_A	is the actual level of delivered energy at the bus bar (net generation) from TPL's thermal plants in million units during the control period.
H_B	is the base station heat rate in K.Cal./kWh calculated on the net output using permitted auxiliary consumption.
Fuel/C_A	is the new landed price of fuel at relevant TPL's generating stations, expressed in Rs./K.Cal calculated after allowing increase (or decreases) in the price of fuel/railway freight, taxes and duties on fuel as well as fuel price increase by fuel suppliers.

Fuel/C_B	is the base## landed price of fuel at relevant TPL's generating stations, expressed in Rs./K.Cal calculated using the base data. This parameter is constant (frozen) for the various quarters (periods) for which increases in fuel price is being permitted.

Base year for this order is the Financial Year 2006-07.

(b) Power purchase cost adjustment formula:

$$= [PPP_1 + PPP_2] \div [S.E]$$

TPL has proposed to include (i) change in working capital costs on account of change in power procurement costs and (ii) Actual gain or loss on account of UI mechanism.

Working capital costs approved as per norms provide adequately with reference to the actual working capital required and there is no case to include this element which is not significant in power purchase adjustment formula.

UI charges frequently vary both ways and therefore are not to be recovered from the consumers on monthly / quarterly basis. This shall be included in the true up and to be approved by the Commission. Hence, not approved.

7.3 BASE PRICE OF FUEL OF TPL STATIONS

The fuel costs of TPL's generating stations in this order are based on weighted average price of fuel (coal, gas and secondary oil) as approved in the tariff order for the year 2007-08. These were, as per the actuals for the year 2006-07. The mix of the indigenous and imported coal for different stations is also considered as approved in the tariff order for the year 2007-08. The station-wise weighted average delivered price of fuel for main line coal and imported coal, secondary fuel, gas, and the weighted average calorific value and the mix of indigenous and imported coal as approved for 2007-08 are given below:

Sl. No.	Station	Mix of indigenous and imported coal	Weighted Average Cost of Coal		Weighted average calorific value of Coal (K.Cal/ kg for Gas (K.Cal/Scm)	Calorific value of secondary oil (K.cal/ kg)	Cost of secondary fuel (Rs./ MT)	Cost of gas (Rs./Scm)
			Main line indigenous Coal (Rs./MT)	Imported Coal (Rs./ MT)				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Coal Based Stations							
1	Sabarmati-C	72.28	2757	3035	5150	9766	18053/MT	-
2	Sabarmati-D	72.28	2757	3035	5150	9766	18053/MT	-
3	Sabarmati-E	72.28	2757	3035	5150	9766	18053/MT	-
4	Sabarmati-F	72.28	2757	3035	5150	9766	18053/MT	-
	Gas Based Stations							
1	Vatva				8305	-		Rs.8.095/ Scm

The cost per MT, for mainline indigenous coal is exclusive of Transit loss. The fuel costs are to be arrived at based on the operational parameters, station heat rate, specific oil consumption of secondary fuel, transit loss etc., approved by the Commission in this order.

TPL may claim fuel price increase from the consumers in accordance with the formula approved by the Commission in the order referred above. Prior approval of the Commission

shall be taken for any change is required in station parameters approved by the Commission in calculating adjustments of fuel cost.

The calorific values mentioned in column 6 of the aforesaid table are in terms of NCV (as claimed by TPL). However, as already mentioned in chapter-4, the operational parameters of heat rate and the corresponding calorific values are subject to the outcome of the study to be ordered by the Commission, and necessary corrective steps, deemed necessary, will be taken in the true up.

The weighted average calorific values indicated above for each of the station is based on assumed quantity of mainline indigenous coal, washed coal and imported coal as indicated in the tariff order for the year 2007-08.

7.4 POWER PURCHASE ADJUSTMENT

The company has an arrangement with GUVNL for supply of required power to meet the demand of its consumers. The company has entered into an agreement for supply of power by GUVNL and the same has been approved by the Commission in its order in case No.832/2004 dated 15.12.2004, which has since been revised. The power purchase costs, according to the revised agreement are projected at Rs.3.10/unit, which should be the base price for power purchase. TPL may claim the increase in the power purchase cost in accordance with the formula approved by the Commission, in the order referred above. The rate of Rs.3.10/Unit includes variable and fixed costs and other charges. This rate of Rs.3.10/kWh is also inclusive of FPPPA charges (12 P/kWh) being levied by the GUVNL.

Similarly TPL may claim the difference between the tariff to be determined by CERC for Sugen and the rate indicated in the present order as per formula approved by the CERC.

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

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.

Chapter – 8

Wheeling Charges

8.1 Wheeling Charges

The wheeling charges shall be based on the costs of the distribution licensees for its wire business.

TPL has stated, in its tariff petition, that it does not have any segregation of cost and income between the wheeling business and retail supply business. Considering that the detailed segregation would require a lot of time and effort, TPL-D has worked out a macro level segregation of various components of the ARR.

The allocation matrix in terms of percentage for wheeling and retail supply business is given as in the Table below:

Table 8.1

Allocation Matrix for distribution wheeling and retail supply business as furnished by TPL

	Wheeling (wire business) (%)	Retail Supply (%)	Total (%)
Power Purchase	0	100	100
Repairs & Maintenance	80	20	100
Employee costs	50	50	100
A&G expenses	40	60	100
Depreciation	80	20	100
Interest on long term Loans	80	20	100
Interest on Security Deposit	0	100	100
Interest on working capital	20	80	100
Provision for bad debts	0	100	100
Contingency reserve	80	20	100
Income Tax	80	20	100
Return on Equity	80	20	100
Non Tariff Income	0	100	100

The allocation of the expenses between wire business and retail supply business as mentioned above by TPL is examined by the Commission and considered reasonable. Based on the above allocation matrix, the approved ARR of TPL-D has been segregated into ARR for wheeling and retail supply business of Ahmedabad/Gandhinagar and Surat areas. Based on the approved ARR the costs for wire business are tabulated for the control period as below:

Table 8.2

ARR for distribution wheeling business (Rs. In crores)

Sl.No.	Particulars	Ahmedabad and Gandhinagar			Surat		
		2008-08	2009-10	2010-11	2008-08	2009-10	2010-11
1	Repairs & Maintenance	58.56	62.08	65.80	21.21	22.48	23.83
2	Employee costs	31.31	33.19	35.18	16.68	17.85	18.92
3	A&G expenses	12.70	13.46	14.27	9.86	10.45	11.08
4	Depreciation	57.22	66.20	76.46	29.71	34.74	36.80
5	Interest on long term Loans	56.47	89.85	104.48	23.46	20.29	20.90
3	Interest on Security Deposit	0.00	0.00	0.00	0.00	0.00	0.00
4	Interest on working capital	3.92	4.93	5.27	4.72	4.99	5.26
5	Provision for bad debts	0.00	0.00	0.00	0.00	0.00	0.00
6	Contingency reserve	0.48	0.48	0.48	0.32	0.32	0.32
7	Income Tax	30.42	35.50	39.75	18.83	20.62	20.87
8	Return on Equity	251.08	305.69	341.69	124.79	131.74	137.98
9	Non Tariff Income	89.51	104.28	116.95	55.41	60.69	63.02
10	Aggregate Revenue Requirement	340.59	409.97	458.64	180.20	192.43	201.00

The wheeling charges worked out for 11 kV voltage level for the year 2008-09 to 2010-11 are given in Table 8.3 below:

Table 8.3

Wheeling charges at 11 kV Voltage level

Sl.No.	Particulars	Approved by Commission for Ahmedabad and Gandhinagar			Approved by Commission for Surat		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
1	Energy input into 11 kV system (MU)	5495	5950	6363	3389	3629	3880
2	Total distribution cost (for wire business) Rs. crores	340.59	409.97	458.64	180.2	192.43	201
3	Distribution cost at 11 kV voltage level (assuming 30% of item No.2) Rs. crores	102.18	122.99	137.59	54.08	57.73	60.30
4	Wheeling charges for 11 kV level (Ps/kWh) (3/1)	18.60	20.67	21.62	15.96	15.91	15.54

Accordingly, the Commission approves wheeling charges of 18.60, 20.67 and 21.62 Ps./kWh at 11 kV voltage level for the years 2008-09, 2009-10 and 2010-11 respectively for Ahmedabad/Gandhinagar and 15.96, 15.91 and 15.54 Ps./kWh at 11 kV voltage level for the years 2008-09, 2009-10 and 2010-11 respectively for Surat area. In addition 4% of energy in kind will be deducted from the energy input towards assumed loss in EHT/HT network of Distribution Licensees.

The wheeling charges worked out for LT voltage levels for the year 2008-09, 2009-10 and 2010-11 for Ahmedabad/Gandhinagar and Surat areas are given in Table 8.4 below:

Table 8.4

Wheeling charges at LT Voltage level

Sl.No.	Particulars	Approved by Commission for Ahmedabad and Gandhinagar			Approved by Commission for Surat		
		2008-09	2009-10	2010-11	2008-09	2009-10	2010-11
1	Energy in put into 11 kV system (MU)	5495	5950	6363	3389	3629	3880
2	Loss in 11 kV (assuming 4%) (MU)	210	238	258	136	145	155
3	Energy sales in 11 kV system (MU)	1520	1555	1700	237	248	259
4	Energy input into LT system (MU) [1- (2+3)]	3765	4157	4405	3016	3236	3466
5	Total Distribution (wire business) cost Rs. Crores	340.59	409.97	458.64	180.20	192.43	201.00
6	Distribution cost for 11 kV voltage level (Rs. crores)	102.18	122.99	137.59	54.08	57.73	60.3
7	Distribution cost at LT voltage level (Rs. crores) (Item 5-6)	238.41	286.98	321.05	126.12	134.70	140.70
8	Wheeling charges for LT levels (Psl/kWh) (Item 7÷4)	63.32	69.04	72.88	41.82	41.63	40.59

In addition 4.75% of energy in kind will be deducted from the energy input towards assessed losses.

8.2 Cross subsidy surcharge

The open access consumers are liable to pay the cross subsidy surcharge to compensate the utility for any loss of revenue due to the shifting of the consumer to the open access system. The cross subsidy surcharge for open access consumers for the year 2008-09 is calculated as per the following formula recommended in the National Tariff Policy.

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

Where,

S= Surcharge

T= Tariff payable by the relevant category of consumers

C= Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power.

D= Wheeling charges (Transmission and Distribution)

L= System losses for the applicable voltage level, expressed as a percentage

In the case of TPL, the power purchase cost is 310 P/kWh. The transmission losses including 11 kV are assumed at 6% and total losses at LT level are 10.43% (including transmission and 11kV) for 2008-09.

Calculation of cross subsidy surcharge for open access consumers at 11 kV

(a) Ahmedabad/Gandhinagar

The sales at 11 kV for 2008-09 = 1520 MU

Revenue for 11 kV sales (existing tariff) = 597.04 crore

Average tariff for 11 kV consumers = 597.04 crore / 1520 MU = 393 Ps/ kWh

Thus at 11 kV level,

T= 393 Ps

C= 310 Ps

L=4%

D=18.60 Ps / kWh

So the cross subsidy surcharge

S = 393 – [310(1+4/100) + 18.60] = 393-(322.4+19.5) = 393-341= 52 Ps/ kWh

(b) Surat Area

The sales at 11 kV for 2008-09 = 237 MU

Revenue for 11 kV sales (existing tariff) = 97.7 crore

Average tariff for 11 kV consumers = 97.7 crore / 237 MU = 412 Ps/ kWh

Thus at 11 kV level,

T= 412 Ps

C= 310 Ps

L=4%

D=15.95 Ps / kWh

So the cross subsidy surcharge

S = 412-[310(1+6/100)+15.95] = 412-(332.4+15.95)=412–338.35=73.65 Ps/ kWh

COMMISSION'S ORDER

Having considered the MYT petition of TPL for approval of Aggregate Revenue Requirement (ARR), determination of bulk and retail supply tariffs for the control period 2008-09 to 2010-11, the Commission approves the Aggregate Revenue Requirement for the control period and the retail supply tariff for Torrent Power Limited (TPL) for the year 2008-09.

The break up of the Aggregate Revenue Requirement approved for TPL for the control period is given below:

Ahmedabad and Gandhinagar Area

(Rs. crores)

S.No.	Particulars	Approved by the Commission		
		2008-09	**2009-10**	**2010-11**
1	Power Purchase/ Own Generation	1481.80	1690.75	1753.53
	GUVNL	517.08	42.78	
	Wind Energy	69.15	112.32	160.76
	APP	885.65	913.43	946.41
	SUGEN	9.92	622.22	646.36
2	Employee Expenses	62.62	66.38	70.37
3	R & M Expenses	73.20	77.60	82.25
4	A & G Expenses	31.75	33.65	35.67
5	Depreciation	71.53	82.75	95.57
6	Interest on loans	70.59	112.31	130.60
7	Interest on Security Deposit	7.72	9.72	11.01
8	Interest on Working Capital	19.61	24.66	26.35
9	Return on equity	111.89	130.55	146.19
10	Provision for bad debts	1.88	2.05	2.20
11	Contingency Reserve	0.60	0.60	0.60
12	Income Tax	38.03	44.37	49.69
13	**Total Revenue Expenditure**	**1971.22**	**2275.39**	**2404.03**
14	Less: Non -Tariff Income	76.24	80.44	84.86
15	**Net Aggregate Revenue Requirement**	**1894.98**	**2194.95**	**2319.17**

Surat Area

(Rs. crores)

S.No.	Particulars	Approved by the Commission		
		2008-09	**2009-10**	**2010-11**
1	Power Purchase / Own Generation	1056.42	1110.19	1168.72
	GUVNL	958.83	-	-
	Wind Energy	44.58	71.96	102.49
	SUGEN	53.01	1038.23	1066.23
2	Employee Expenses	33.68	35.70	37.84
3	R & M Expenses	26.51	28.10	29.79
4	A & G Expenses	24.65	26.12	27.69
5	Depreciation	37.14	43.42	45.99
6	Interest on loans	29.32	25.38	26.13
7	Interest on Security Deposit	7.68	6.47	5.97
8	Interest on Working Capital	23.59	24.94	26.30
9	Return on equity	69.26	75.86	78.77
10	Provision for bad debts	1.22	1.27	1.36
11	Contingency Reserve	0.40	0.40	0.40
12	Income Tax	23.54	25.78	26.09
13	**Total Revenue Expenditure**	**1333.41**	**1403.63**	**1475.05**
14	Less: Non -Tariff Income	26.73	28.20	29.76
15	**Net Aggregate Revenue Requirement**	**1306.68**	**1375.43**	**1445.29**

The approved Retail Supply Tariff for the year 2008-09 for each area 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/-

K P GUPTA

Member

Sd/-

DR. MANMOHAN

Member

Place : Ahmedabad

Date : 17 January, 2009

TARIFF SCHEDULE FOR 2008-09

(A) Tariff Schedule for Ahmedabad-Gandhinagar License area of Torrent Power Limited

TARIFF FOR SUPPLY OF ELECTRICITY

EFFECTIVE FROM: 01-02-2009

GENERAL CONDITIONS

1. This tariff schedule is applicable to all the consumers of TPL in Ahmedabad-Gandhinagar area.

2. This tariff schedule supersedes all tariffs in force and shall be effective from 1st February 2009.

3. All these tariffs for power supply are applicable to only one point of supply.

4. The meter charges shall be applicable as prescribed under GERC's (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation.

5. Interest on Delayed Payment shall be applicable as prescribed under GERC's (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation.

6. The energy supplied under these tariffs can be utilized only within the compact area of the premises not intervened by any area/road belonging to any person or authority other than the consumer.

7. Except in cases where the supply is used for purposes for which the TPL has permitted lower tariff, the power supplied to any consumer shall be utilized only for the purpose for which supply is taken and as provided for in the tariff.

8. The charges specified in the tariff are on monthly basis, TPL shall adjust the rates according to billing period applicable to consumer.

9. The various provisions of the GERC's (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation will continue to apply.

10. Conversion of Ratings of electrical appliances and equipments from kilowatt to B.H.P. or vice versa will be done, when necessary, at the rate of 0.746 kilowatt equal to 1 B.H.P.

11. The billing of fixed charges based on contracted load or maximum demand shall be done in multiples of 0.5 (one half) Horse Power or kilo watt (HP or kW) as the case may be. The fraction of less than 0.5 shall be rounded to next 0.5. The billing of energy charges will be done on complete one kilo-watt-hour (kWh).

12. The Connected Load for the purpose of billing will be taken as the maximum load connected during the billing period.

13. Contract Demand shall mean the maximum kW for the supply of which the TPL undertakes to provide facilities to the consumer from time to time.

14. Maximum Demand in a month means the highest value of average kW as the case may be, delivered at the point of supply of the consumer during any consecutive 30 minutes in the said month.

15. 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.

16. The Fixed charges, minimum charges, demand charges, meter rent and the slabs of consumption of energy for energy charges mentioned shall not be subject to any adjustment on account of existence of any broken period within billing period arising from consumer supply being connected or disconnected any time within the duration of billing period for any reason.

17. Prompt payment discount on the total bill excluding all types of levies, duties or taxes levied by the Government or any other competent authorities and meter rent but including fixed charges, energy charges and minimum charge shall be allowed at the 3% rate for tariff category 'Rate: RGP' and at 2% rate for all other tariff category except tariff category 'Rate :TS', provided that the bill is paid – (i) within 14 days of the date thereof for LT consumers and (ii) within 10 days of the date thereof for HT consumers, provided that no previous account is outstanding as on the date of the bill.

18. The fuel cost and power purchase adjustment charges shall be applicable in accordance with the formula approved by the Gujarat Electricity Regulatory Commission from time to time.

19. Statutory Levies:

    These tariffs are exclusive of Electricity Duty, Tax on Sales of Electricity, Taxes and other Charges levied/may be levied or such other taxes as may be levied by the Government or other Competent Authorities on bulk/retail supplies from time to time.

PART- I

SUPPLY DELIVERED AT LOW OR MEDIUM VOLTAGE

(230 VOLTS- SINGLE PHASE, 400 VOLTS- THREE PHASE, 50 HERTZ)

1. RATE: RGP

Applicable to lights, fans and domestic appliances for heating, cooling, cleaning and refrigeration purposes in residential premises

Domestic Water-Pump exceeding 3 BHP rating will not be allowed under this tariff category.

1.1. FIXED CHARGE

(a)	Single Phase Supply	Rs. 5 per month per installation
(b)	Three Phase Supply	Rs. 15 per month per installation

1.2. ENERGY CHARGE

(i)	First 50 units consumed per month	270 Paise per Unit
(ii)	For the next 150 units consumed per month	310 Paise per Unit
(iv)	Remaining units consumed per month	395 Paise per Unit

2. RATE: GLP

Applicable to lights, fans and appliances for heating, cooling, cleaning and refrigeration purposes in premises "other than residential" like premises used for charitable purposes like: public hospitals, dispensaries, educational and research institutions and hostels attached to such institutions, youth hostels run by Government, religious premises exclusively used for worship or community prayers, electric crematorium etc. Such premises should be in the use of 'Public Trust" as defined under section 2(13) of the Bombay Public Trust Act, 1950.

2.1. FIXED CHARGE

(a)	Single Phase Supply	Rs. 10 per month per installation
(b)	Three Phase Supply	Rs. 30 per month per installation

2.2. ENERGY CHARGE

(i)	First 200 units consumed per month	320 Paise per Unit
(iv)	Remaining units consumed per month	390 Paise per Unit

3. RATE: IGP

Applicable to lights, fans and appliances for heating, cooking, cleaning and refrigeration purposes in industrial premises including office premises attached to factories provided that the rating of individual appliance does not exceed 2 KWs.

3.1. FIXED CHARGE

(a)	Single Phase Supply	Rs. 30 per month per installation
(b)	Three Phase Supply	Rs. 75 per month per installation

3.2. ENERGY CHARGE

(i)	First 50 units consumed per month	360 Paise per Unit
(ii)	For the next 150 units consumed per month	395 Paise per Unit
(iv)	Remaining units consumed per month	490 Paise per Unit

4. RATE: CGP

Applicable to lights, fans and appliances for heating, cooking, cleaning and refrigeration purposes in premises other than residential, those covered by the rate GLP and rate IGP, provided that the rating of individual appliance does not exceed 2 KWs.

4.1. FIXED CHARGE

(a)	Single Phase Supply	Rs. 30 per month per installation
(b)	Three Phase Supply	Rs. 75 per month per installation

4.2. ENERGY CHARGE

(i)	First 50 units consumed per month	360 Paise per Unit
(ii)	For the next 150 units consumed per month	395 Paise per Unit
(iv)	Remaining units consumed per month	490 Paise per Unit

5. RATE: CN

Applicable to supply for all purpose in cinema and theaters.

5.1. FIXED CHARGE

Fixed Charge	Rs. 75 per month per installation

5.2. ENERGY CHARGE

A flat rate	410 Paise per Unit

6. RATE: LTP-1

Applicable to motive power installations upto and including 15 B.H.P. of connected load used for residential purposes and pumping stations run by local authorities.

6.1. FIXED CHARGE

Fixed Charge per BHP of Connected Load	Rs.17 per BHP per Month

6.2. ENERGY CHARGE

A flat rate of	342 Paise per Unit

7. RATE: LTP-2

Applicable to motive power installations upto and including 15 B.H.P. of connected load excluding installations for agricultural purposes and those covered under LTP-1 category.

7.1. FIXED CHARGE

(a)	For installations having Connected Load upto and including 5 BHP	Rs. 20 per BHP per Month
(b)	For installations having Connected Load more than 5 BHP and upto 15 BHP	Rs. 25 per BHP per Month

7.2. ENERGY CHARGE

A flat rate of	350 Paise per Unit

8. RATE: LTP (AG)

Applicable to motive power installations for agricultural purposes

8.1. ENERGY CHARGE

A flat rate of	318 Paise per Unit

8.2. MINIMUM CHARGE

Minimum Charge per BHP of Connected Load	Rs.10 per BHP per Month

9. RATE: LTMD-1

Applicable to motive power installations above 15 B.H.P. of connected load used for residential purpose and pumping stations run by local authorities.

9.1. FIXED CHARGE

A. For Billing Demand upto and including Contract Demand

(a)	First 50 kW of Billing Demand per month	Rs. 70 per kW
(b)	Next 30 kW of Billing Demand per month	Rs. 90 per kW
(c)	Rest of Billing Demand per month	Rs.120 per kW

B. For Billing Demand in excess of the Contract Demand

Fixed Charge per kW of Billing Demand per month	Rs. 325 Per kW

NOTE: The Billing Demand will be taken as under:

i. The Maximum Demand recorded during the month OR

ii. 85% of the Contract Demand OR

iii. 6 KW

Whichever is the highest.

9.2. ENERGY CHARGE

i)	For Billing Demand upto and including 50 KW	350 Paise per unit
ii)	For Billing Demand above 50 KW	365 Paise per unit

9.3. POWER FACTOR ADJUSTMENT CHARGE

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

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

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

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

10. RATE: LTMD-2

Applicable to motive power installations above 15 B.H.P. of connected load excluding installations for agricultural and those covered under LTMD-1 category.

10.1. FIXED CHARGE

A. For Billing Demand upto and including Contract Demand

(a)	First 50 kW of Billing Demand per month	Rs. 80 per kW
(b)	Next 30 kW of Billing Demand per month	Rs. 110 per kW
(c)	Rest of Billing Demand per month	Rs. 150 per kW

B. For Billing Demand in excess of the Contract Demand

Fixed Charge per kW of Billing Demand per month	Rs. 350 Per kW

NOTE: The Billing Demand will be taken as under:

i. The Maximum Demand recorded during the month OR

ii. 85% of the Contract Demand OR

iii. 6 KW

Whichever is the highest.

10.2. ENERGY CHARGE

i)	For Billing Demand upto and including 50 KW	365 Paise per unit
ii)	For Billing Demand above 50 KW	385 Paise per unit

10.3. POWER FACTOR ADJUSTMENT CHARGE

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

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

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

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

11. RATE: STREET LIGHTS

Applicable to lighting systems for illumination of public roads.

11.1 ENERGY CHARGE

A flat rate of	325 Paise per Unit

12. RATE: TS

Applicable to installations for temporary requirement of electricity supply.

12.1. FIXED CHARGE

Fixed Charge per Installation	Rs.14 per kW per Day

12.2. ENERGY CHARGE

A flat rate of	390 Paise per Unit

PART- II

SUPPLY DELIVERED AT HIGH VOLTAGE

(11000 VOLTS- THREE PHASE, 50 HERTZ)

13. RATE: HTMD

Applicable for supply of energy to High Tension consumers contracting for maximum demand of 100 kW and above. (Other than pumping stations run by local authorities)

13.1. FIXED CHARGE

A. For Billing Demand upto and including Contract Demand

Fixed Charge per kW of Billing Demand per Month	Rs. 140 per kW

B. For Billing Demand in excess of the Contract Demand

Fixed Charge per kW of Billing Demand per month	Rs. 275 per kW

NOTE: The Billing Demand will be taken as under:

i. The Maximum Demand recorded during the month OR

ii. 85% of the Contract Demand OR

iii. 100 KW

Whichever is the highest.

13.2. ENERGY CHARGE

i)	First 400 units consumed per kW of Billing Demand per Month	339 Paise per unit
ii)	Remaining Units consumed per Month	331 Paise per unit

13.3. TIME OF USE (TOU) CHARGE

For the Consumption during specified hours as mentioned here below: (i) For April to October period- 1200 Hrs. to 1700 Hrs. & 1830 Hrs. to 2130 Hrs. (ii) For November to March period- 0800 Hrs. to 1200 Hrs. & 1800 Hrs. to 2200 Hrs.	
(a) For Billing Demand upto 300 kW	50 Paise per Unit
(b) For Billing Demand Above 300 kW	70 Paise per Unit

13.4. POWER FACTOR ADJUSTMENT CHARGE

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

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

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

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

14. RATE: HT PUMPING STATIONS

Applicable for supply of energy to Water and Sewage Pumping Stations run by local authorities and contracting for maximum demand of 100 kW and above.

14.1. FIXED CHARGE

A. For Billing Demand upto and including Contract Demand

Fixed Charge per kW of Billing Demand per Month	Rs. 140 per kW

B. For Billing Demand in excess of the Contract Demand

Fixed Charge per kW of Billing Demand per month	Rs. 275 Per kW

NOTE: The Billing Demand will be taken as under:

i. The Maximum Demand recorded during the month OR

ii. 85% of the Contract Demand OR

iii. 100 KW

Whichever is the highest.

14.2. ENERGY CHARGE

A flat rate of	310 Paise per unit

14.3. TIME OF USE (TOU) CHARGE

For the Consumption during specified hours as mentioned here below- (i) For April to October period- 1200 Hrs. to 1700 Hrs. & 1830 Hrs. to 2130 Hrs. (ii) For November to March period- 0800 Hrs. to 1200 Hrs. & 1800 Hrs. to 2200 Hrs.	50 Paise per unit

14.4. POWER FACTOR ADJUSTMENT CHARGE

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

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

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

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

(B) Tariff Schedule for Surat License Area of Torrent Power Limited

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

Effective from 01-02-2009

GENERAL CONDITIONS

1) This tariff schedule is applicable to all the consumers of TPL in Surat Area.

2) This tariff schedule supersedes all tariffs in force and shall be effective from 1st February 2009.

3) All these tariffs for power supply are applicable to only one point of supply.

4) The meter charges shall be applicable as prescribed under GERC's (licensee's power to recover expenditure incurred in providing supply and other miscellaneous charges) Regulation.

5) The energy supplied under these tariffs can be utilized only within the compact area of the premises not intervened by any area/road belonging to any person or authority other than the consumer.

6) Except in cases where the supply is used for purposes for which the Company has permitted lower tariff, the power supplied to any consumer shall be utilized only for the purpose for which supply is taken and as provided for in the tariff.

7) The charges specified in the tariff are on monthly basis, the Company may decide the period of billing and adjust the rates accordingly.

8) The billing of fixed charges based on contracted load or maximum demand shall be done in multiples of 0.5 (one half) Horse Power, kilo -Watt, kilo- Volt -Ampere (HP, kW, KVA), as the case may be. The fraction of less than 0.5 shall be rounded to next 0.5. The billing of energy charges will be done on complete 1.0 (one) kilo-watt-hour (kWh) or kilo-volt-ampere-hour (kVAh) or kilo-volt-ampere-reactive hour (kVArh), as the case may be.

9) **Maximum Demand in a month means the highest value of average KVA or kW as the case may be, delivered at the point of supply of the consumer during any consecutive 30 minutes in the said month.**

10) The Company may install KWh and kVArh meter for ascertaining power factor, reactive units and KWh units.

11) 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.

12) ToU charges wherever applicable unless other wise notified shall be levied for the energy consumption during the period between 07.00 hours and 11.00 hours; and between 18.00 hours and 22.00 hours, termed as PEAK HOURS. Night hours concession wherever

applicable will be given for the energy consumption during the period between 22.00 hours and 06.00 hours next day, termed as 'OFF PEAK HOURS'.

13) 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.

14) Delay Payment Charges

17.1 No delay payment charges will be levied if the bill is paid on or before due date indicated in the bill.

17.2 Delay payment charges, if the bill is paid after due date, will be levied at the rate of 0.5% per week or part thereof on the outstanding bill from the date of billing till the date of payment.

15) Statutory Levies:

These tariffs are exclusive of Electricity Duty, Tax on Sales of Electricity, Taxes and other Charges levied/may be levied or such other taxes as may be levied by the Government or other Competent Authorities on bulk/retail supplies from time to time.

PART-I

RATE SCHEDULE - LOW /MEDIUM TENSION

230/400 Volts

1. Rate: Residential

This tariff shall be applicable to the services for the lights, fans, heating and small electrical appliances such as refrigerators, cookers, heaters, water pump and small motors having individual capacity not exceeding 2 BHP attached to domestic appliances in residential premises.

a) Single phase supply (aggregate load up to 6 KW)

b) Three phase supply (aggregate load including motor load exceeding 6 KW)

1.1 FIXED CHARGES: -

A	Single Phase Supply	Rs. 5.00 per installation per month
B	Three Phase Supply	Rs.15.00 per installation per month

PLUS

1.2 ENERGY CHARGES: -

i	First 50 units during the month	270 Paise/unit
ii	Next 50 units during the month	290 Paise/unit
iii	Next 100 units during the month	335 Paise/unit
iv	Next 50 units during the month	365 Paise/unit
v	Next 50 units during the month	395 Paise/unit
vi	Above 300 units during the month	425 Paise/unit

2. Rate: Commercial

This tariff shall be applicable to services for lights, fans, heating and electrical appliances such as refrigerators, cookers, heaters, HVAC and small motors having individual capacity not exceeding 2 BHP attached to the appliances in Commercial Premises which are not covered in Residential and General.

a) Single phase supply (aggregate load up to 6 KW)

b) Three phase supply (aggregate load including motor load exceeding 6 KW)

2.1 FIXED CHARGES:

A	Single Phase Supply	Rs. 45.00 per installation per month
B	Three Phase Supply	Rs. 75.00 per installation per month

PLUS

2.2 ENERGY CHARGES:

i	First 50 units during the month	330 Paise/unit
ii	Next 50 units during the month	370 Paise/unit
iii	Next 50 units during the month	410 Paise/unit
iv	Next 350 units during the month	450 Paise/unit
v	Next 500 units during the month	475 Paise/unit
vi	Above 1000 units during the month	490 Paise/unit

3. Rate: General

This tariff will be applicable for use of energy for lights, fans, heating, general load and motive power in premises: -

i. Crematoriums and Government and Municipal Hospitals.

ii. Charitable Institutions like hospital, dispensary, educational and Research Institute and Hostel attached to such Institution, religious premises exclusively used for worship or community prayers, registered with Charity Commissioner and specifically exempted from levy of general tax under section 2 (13) of Bombay Trust Act, 1950 read with section 9 of The Income Tax Act, 1961.

iii. Public streets Lights, gardens and conveniences.

iv. Water works and sewerage pumping services operated by Municipal Corporations.

Note: Halls or gardens or any portion of the above premises let out for consideration or used for commercial activities at any time shall be charged at Commercial tariff.

a) Single phase supply (aggregate load up to 6 KW)

b) Three phase supply (aggregate load including motor load exceeding 6 KW)

3.1 FIXED CHARGES:

A	Fixed Charges	Rs.20.00 per installation per month

PLUS

3.2 ENERGY CHARGES:

i	Energy Charges	315 Paise/unit

4. Rate: LTP

This tariff is applicable for aggregate contracted motive power load not exceeding 50 BHP.

4.1 FIXED CHARGES:

A	First 10 BHP	Rs.20/- Per BHP per month
B	Next 10 BHP	Rs.30/- Per BHP per month
C	Above 20 BHP	Rs.35/- Per BHP per month

PLUS

4.2 ENERGY CHARGES:

i	Up to 10 BHP	330 Paise/unit
ii	10.1 – 15 BHP	350 Paise/unit
iii	Above 15 BHP	375 Paise/unit

4.3 MINIMUM BILL per installation per month (excluding meter charges):

(a)	For the Contracted load	Rs 100/- per BHP per month

Note:

1 The minimum charges specified above should be payable only if fixed charges and Energy Charges fall short by minimum billed amount.

2 The consumers having aggregate contracted load above 20 KVA can opt for Rate LTMD. The option to switch over from Rate LTP to Rate LTMD and vice versa can be exercised twice in a calendar year by giving one-month notice in writing.

5. Rate: LTMD

This tariff shall be optionally available to consumers using electricity for motive power services with contracted load up to 50 HP and having minimum contract demand of 20 KVA and compulsory for contracted load above 50 HP to 125 HP

i) The option can be exercised to switchover from LTMD to LTP and vice versa twice in a calendar year by giving not less than 30 days notice in writing for connected load up to 50HP.

ii) For the optional LTMD tariff consumers has to provide metering system in the event when proper metering is not provided by the Company.

5.1 DEMAND CHARGES:

A	Up to 50 KVA of billing demand.	Rs. 50/- per KVA/month
B	Above 50 KVA & up to 60 KVA billing demand	Rs. 60/- per KVA/month
C	Above 60 KVA of billing demand	Rs.70/- per KVA/month
D	In excess of contract demand	Rs. 180/- per KVA/month

Note: BILLING DEMAND: - Billing demand during the month shall be the highest of the following:

a) Maximum demand recorded during the month.

b) 85 % of the contract demand.

c) 20 KVA

PLUS

5.2. ENERGY CHARGES:

i	Energy charges	385 Paise/unit

PLUS

5.3 REACTIVE ENERGY CHARGES (KVARH units):

For installation having contracted load of 50 HP and above

(a)	For all the reactive units drawn during the month	10 Paise/kVArh

6. Rate: TS- Temporary Supplies:

6.1 ENERGY CHARGES:

i	Energy Charges	470 Paise/ unit

7. Rate: AGP

This tariff is applicable to motive power services used for irrigation purpose.

The rates for following group are as under

7.1 FIXED CHARGES:

A	Fixed Charges	Rs. 10.00 per BHP per month

PLUS

7.2 ENERGY CHARGES:

i	Energy Charges	50 Paise/unit

Note:

1. The agricultural consumers shall be permitted to utilize one bulb up to 40 watts in the Pump House without recovering any charges. Any further extension or addition of load will amount to unauthorized extension.
2. No machinery other than pump for irrigation will be permitted under this tariff.

PART-II

RATE SCHEDULE FOR SERVICE AT HIGH TENSION

8. Rate: HTMD -1

This tariff shall be applicable for supply of energy at 3.3KV and above for industrial purpose, water works, pumping and similar activities and contracting for demand of 100 KVA or more.

8.1. DEMAND CHARGES:

8.1.1 For billing demand up to contract demand

A	First 500 KVA of billing demand	Rs. 80/- per KVA per month
B	Next 500 KVA of billing demand	Rs. 110/- per KVA per month
C	Above 1000 KVA of billing demand	Rs 125/- per KVA per month

8.1.2 For billing demand in excess of contract demand

For Billing demand in excess over Contract demand	Rs. 335/- per KVA per month

Note: BILLING DEMAND: Billing demand shall be the highest of the following: -

a. Actual maximum demand established during the month

b. 85 per cent of the Contract Demand, and

c. 100 KVA

PLUS

8.2. ENERGY CHARGES:

i	Up to 1000 KVA	380 Paise/unit
ii	Above 1000 KVA	390 Paise/unit

PLUS

8.3. 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	70 paise per unit

PLUS

8.4 POWER FACTOR:

8.4.1 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% up to 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.

8.4.2 <u>Power Factor Adjustment Rebate: -</u>

If the average power factor of the consumer's installation in any month is 95%, the consumer will be entitled to a rebate at the rate of 1% 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%.

8.5 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 crèche, laboratory, stores, timekeeper's Office, yards, watch and ward, first aid centers, and dispensaries during a month registered at the main meter on HT side shall be charged at the energy charges specified above.

8.6 NIGHT TIME CONCESSION: - The energy consumed during night hours between 22.00 hours and 06.00 hours next day (recorded by the tariff meter operated through time switch or built in feature of time segments, if incorporated) as is in excess of one third of total energy consumed during the month, shall be eligible for concession of 50 Paise per KWH. The meter and time switch shall be procured and installed by consumer at his cost, if required by the Company. The Company, if provided by consumer, will seal the metering equipment.

8.7 REBATE FOR SUPPLY AT EHV:

Sr. No.	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 %

9. Rate HTMD - 2

This tariff shall be applicable for supply of energy to consumers at 3.3 KV and above for contracting the demand of 100 KVA and above and requiring power for:

a) Hospitals, Hotels, Military Installations, Studios, Aerodrome, Cinema, Auditorium,

b) Bank Offices, Educational Institutions, Film Production, Railways and such other establishments where load is of non-industrial nature.

c) Purposes not covered under the tariff HTMD-1.

9.1. DEMAND CHARGES:

9.1.1 For billing demand up to contract demand

A	First 500 KVA of billing demand	Rs 100/-per KVA
B	Above 500 KVA	Rs 130/- per KVA

9.1.2 For billing demand in excess over contract demand

For billing demand in excess over contract demand	Rs.360/- per KVA

Note: BILLING DEMAND: Billing demand shall be the highest of the following: -

a. Actual maximum demand established during the month

b. 85 per cent of the Contract Demand, and

c. 100 KVA

PLUS

9.2. ENERGY CHARGES:

i	Up to 500 KVA	395 Paise/unit
ii	Above 500 KVA	400 Paise/unit

PLUS

9.3. TIME OF USE CHARGE:

(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.	70 paise per unit

PLUS

9.4 POWER FACTOR:

9.4.1 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% up to 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.

9.4.2 Power Factor Adjustment Rebate: -

If the average power factor of the consumer's installation in any month is 95%, the consumer will be entitled to a rebate at the rate of 1% 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%.

9.5 REBATE FOR SUPPLY AT EHV:

Sr. No.	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 %

10. Rate- NTCT (NIGHT TIME CONCESSIONAL TARIFF)

This is nighttime concessional tariff for consumers for regular power supply who opt to use electricity **EXCLUSIVELY** during night hours between 22.00 hours and 06.00 hours next day. The consumer shall provide the switching arrangement as shall be acceptable to the Company to regulate supply hours.

a) Fixed Charges: 30 % of the fixed/demand charge

(Under the relevant tariff)

PLUS

b) Energy Charge: 310 Paise

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Government Central Press, Gandhinagar.