GUJARAT ELECTRICITY REGULATORY COMMISSION

Annual Performance Review for FY 2008-09
&
Annual Tariff Determination for FY 2009-10

For

Gujarat State Electricity Corporation Limited

Case No. 974/2009

14 December 2009

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(GERC)

AHMEDABAD

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TABLES

ABBREVIATIONS

APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
Avg.	Average
CAGR	Compounded Annualized Growth Rate
CAPEX	Capital Expenditure
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
Control Period	FY 2008-09, FY 2009-10, FY 2010-11s
DGVCL	Dakshin Gujarat Vij Company Limited
FPPPA	Fuel Price and Power Purchase Adjustment
FY	Financial Year
GCV	Gross Calorific Value
GDP	Gross Domestic Product
GEB	Gujarat Electricity Board
GERC	Gujarat Electricity Regulatory Commission
GSECL	Gujarat State Electricity Corporation Limited
GUVNL	Gujarat Urja Vidyut Nigam Limited
kCal	Kilocalorie
kWh	Kilowatt Hour
MGVCL	Madhya Gujarat Vij Company Limited
MYT	Multi Year Tariff
NCV	Net Calorific Value
O&M	Operation & Maintenance
PAF	Plant Availability Factor
PGCIL	Power Grid Corporation of India Limited
PGVCL	Paschim Gujarat Vij Company Limited
PLF	Plant Load Factor
RE	Revised Estimates
SHR	Station Heat Rate
SLDC	State Load Dispatch Center
UGVCL	Uttar Gujarat Vij Company Limited
YoY	Year on Year

BEFORE THE GUJARAT ELECTRICITY REGULATORY COMMISSION AT AHMEDABAD

Case No. 974 / 2009

Date of Order 14.12.2009

CORAM

Dr. P. K. Mishra, Chairman
Shri Pravinbhai Patel, Member

ORDER

1 Background and brief history

1.1 Background

Gujarat State Electricity Corporation Limited (herein after referred to as 'GSECL' or 'petitioner') has filed its petition under Section 62 of the Electricity Act, 2003 read with Gujarat Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2005 (hereinafter referred to as 'Terms & Conditions of Tariff') and Gujarat Electricity Regulatory Commission (Multi Year Tariff Framework) Regulations, 2007 (hereinafter referred to as 'MYT Regulations') on 21st August 2009 for annual performance review (APR) of FY 2008-09 and determination of tariff for FY 2009-10 for generation business, under MYT Control Period FY2008-09 to FY2010-11. Subsequent to the filing, the Commission undertook technical validation of the petition and admitted the petition on 4th September 2009.

1.2 Gujarat State Electricity Corporation Limited (GSECL)

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

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

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

Four Distribution Companies:

iii) Dakshin Gujarat Vij Company Limited (DGVCL)

iv) Madhya Gujarat Vij Company Limited (MGVCL)

v) Uttar Gujarat Vij Company Limited (UGVCL)

vi) Paschim Gujarat Vij Company Limited (PGVCL)

and

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

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

1.3 Commission's Order for the first control period

Gujarat State Electricity Corporation Limited filed its petition under the Multi Year Tariff framework for the FY 2008-09, FY 2009-10 and FY 2010-11 on 31st July 2008 in accordance with the Gujarat Electricity Regulatory Commission (Multi Year Tariff Framework) Regulations, 2007 notified by Gujarat Electricity Regulatory Commission (hereinafter referred to as 'GERC' or the 'Commission'). 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 GSECL, the objections by various stakeholders, response of GSECL, issues raised during the public hearing and all other relevant material, issued the Multi Year Tariff order on 17th January 2009 for the control period comprising FY 2008-09, FY 2009-10 and FY 2010-11.

1.4 Admission of current petition and public hearing process

The Commission undertook technical validation and admitted the current petition of GSECL for annual performance review (APR) of FY2008-09 and determination of tariff for FY2009-10 for generation business (Case No 974 of 2009) on 4th September 2009.

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

The Public Notice was published in the following newspapers on 11th September 2009 inviting objections / suggestions from its stakeholders on the petition filed by it.

1. Indian Express – in English
2. Gujarat Samachar – in Gujarati
3. Divya Bhaskar – in Gujarati

The petitioner also placed the public notice and the petition on its website (www.gsecl.in) inviting objections and suggestions on its petition.

The interested parties/stakeholders were asked to file their objections and suggestions on the petition on or before 12th October 2009. Subsequently, the Commission received representations from a few stakeholders for extending the time for filing their objections / suggestions. The Commission sent individual communication to these stakeholders informing them that the Commission does not propose to extend the last date of submission of objections/suggestions. However, those stakeholders who were unable to submit their objections / suggestions within the prescribed time could make their submissions during the course of public hearing.

Commission received objections/suggestions from 21 respondents with respect to all the subsidiaries of GUVNL including GSECL. Some of the objections / suggestions received after the last date but prior to the date of public hearing have also been considered by the Commission.

The Commission thereafter fixed the date of public hearing for GSECL petition on 29th October 2009 and 30th October 2009 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.

The issues and concerns raised by various stakeholders during the course of the public hearing as well as the written submission have been carefully examined by the Commission.

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

1.5 Contents of the Order

The order is arranged into 5 chapters as under:

1. The first chapter provides a background regarding the petitioner, petition and details of the public hearing process.
2. The second chapter provides detailed account of the public hearing process, including the objections raised by various stakeholders, GSECL responses and the Commission's views on the responses.

3. The third chapter details the process of annual performance review of the year 2008-09 for the generation business.
4. The fourth chapter analyses the Aggregate Revenue Requirement for generation business for the FY 2009-10.
5. The fifth chapter deals with compliance of directives issued earlier and fresh directives issued in this Order.

1.6 Approach of this Order

In this order the Commission has analyzed the petition submitted by the petitioner in regard to the annual performance review for FY 2008-09 and the determination of Annual Revenue Requirement for FY 2009-10. Under the MYT Framework, the Commission has projected the ARR for the petitioner for each year of the control period in the MYT Order issued on 17th January, 2009. The Regulations provide for annual performance review based on the actual expenses incurred by the petitioner compared with the trajectories approved under the MYT Order.

At the time of issue of this order, the first year of the Control Period i.e. FY 2008-09 has passed. However, the audited financial statements for the petitioner are not available. The petitioner has submitted provisional financial statements. Considering this background the Commission has considered a provisional annual performance review for FY 2008-09. Based on the provisional annual performance review the Commission has computed the gains / losses as required under the MYT Regulations. However, the effect of these gains / losses shall be passed on to successive year based on its verification from the audited accounts of the petitioner. The Commission therefore directs the petitioner to submit the audited accounts for FY 2008-09 at the earliest.

In regard to the annual tariff determination for FY 2009-10, the Commission has observed that a major portion of the FY 2009-10 has already elapsed. Further, in the absence of audited accounts, the gains / losses computed for FY 2008-09, as a result of annual performance review, are provisional in nature. Therefore, the Commission has only reviewed the submission of the petitioner for FY 2009-10. The Commission has not considered any revision in the energy charges or fixed charges to be recovered from the consumers for FY 2009-10.

1.6.1 Approach for APR for the FY 2008-09

Regulation 9.1 of the MYT Regulations provides that where the aggregate revenue requirement of a generating company or a licensee is covered under a multi year tariff framework such licensee shall be subject to Annual Performance Review (APR) during the control period. With regard to the scope of the APR, Regulation 9.3 of the MYT Regulations provide that the scope of APR shall include a comparison of the audited performance of the generating company or the licensee with the approved forecast of aggregate revenue requirement and expected revenue from tariff and charges.

Regulation 9.6 further provides that subsequent to APR, the Commission shall attribute and classify any variation in performance to either on account of controllable parameters or uncontrollable parameters. Components of controllable factors and uncontrollable factors have accordingly been provided in the MYT Regulations. Subsequent to classification of parameters impacting the variations into uncontrollable and controllable parameters, Regulation 10 provides the mechanism for pass through of gains and losses on account of uncontrollable parameters and Regulation 11 provides the mechanism for sharing of gains and losses on account of controllable parameters.

For the purpose APR for the FY 2008-09, the Commission has considered the above approach and has undertaken a comparison of the actual performance (based on provisional accounts) with the projections approved in MYT Order. The Commission has thereafter classified the variance into uncontrollable and controllable and has considered the treatment as provided in Regulation 10 and Regulation 11 of the MYT Regulations.

1.6.2 Approach for ARR for the FY 2009-10

FY 2009-10 is the second year of the first control period. A major portion of FY 2009-10 has already elapsed. The petitioner has now approached the Commission for annual determination of tariff for FY 2009-10 based on the APR of FY 2008-09.

The Commission has observed that a major portion of the FY 2009-10 has elapsed with less than four months left in the year. The Commission has also observed that the time line for tariff determination for FY 2010-11 has already arrived.

Further, the Commission has noticed that the gains / losses computed for FY 2008-09 based on the APR cannot be passed on to FY 2009-10 since the APR is provisional in nature.

The impact of this gains / losses shall be effected in the order for tariff determination of FY 2010-11. In this regard the Commission has noted that the stipulated date for submission of petition for determination of tariff for FY 2010-11 is 15th December, 2009. In regard to FY 2009-10, the Commission is of the opinion that it shall consider the gains / losses at the time of APR based on the audited accounts for the year.

The Commission has therefore concluded that it shall await the submission of the petition for tariff determination for FY 2010-11. The petitioner is therefore directed to submit the petition for FY 2010-11 along with the audited accounts for FY 2008-09 by 15th December, 2009..

2 Response from Stakeholders

2.1 Background

In response to the public notice inviting objections / suggestions from stakeholders on the MYT petition filed by GSECL for annual performance review (APR) of FY2008-09 and annual determination of tariff for FY2009-10 for generation business, under MYT Control Period FY2008-09 to FY2010-11, 21 consumers / consumer organizations have filed their objections / suggestions in writing. Out of 21 objectors those who filed objections / suggestions 16 stakeholders have participated in the public hearings. These 21 consumers / consumer organizations have filed objections for various utilities which are subsidiaries of GUVNL. A few of these objectors have also filed objections for GSECL.

The Commission considered the submitted objections / suggestions and has observed that several objections are similar in nature. Therefore for the purpose of this order the Commission has clubbed similar issues. Accordingly, based on this approach the issues presented before the Commission, response of GSECL and the views of the Commission are presented below:

2.2 Conditions of tender considered for sourcing of coal

Objections:

Some objectors have submitted that the process adopted for procurement of fuel (imported coal) has not been in accordance with the prevalent practices. It has been submitted that the qualification requirements (eligibility conditions) considered under the tender for procurement of fuel has been regressive and restrictive to fair competition.

Specific objection has been raised in regard to the tender floated by the petitioner for procurement of 15.0 lac metric tonne (MT) of imported coal. Under the bid documents only those suppliers could bid who had earlier supplied at least double the required quantity. The objector has submitted that higher qualification requirement reduces competition and chances of getting a fair price. The objector has therefore submitted that the petitioner should be directed to consider qualification requirement which increases competition and thereby bring in fair price.

GSECL's Response:

The petitioner has submitted that the qualification criteria are formulated to ensure that the qualifying parties are adequately equipped to ensure continuous supply of fuel. GSECL has further clarified that they have always received wide response to their tenders. In this regard, GSECL has submitted reference to one instance where they have received bids from five bidders.

The petitioner has further submitted that GSECL ensures that the fuel is always procured at competitive price and there are no intentions to structure qualification requirements to favor any particular supplier.

Commission's view:

The Commission is of the opinion that the petitioner should strive to undertake efficient purchase of fuel at fair prices which are competitively determined.

2.3 Old power plants and addition of new capacity

Objections:

Some objectors have submitted that the petitioner is not undertaking any new capacity addition. Further, the generation capacity of the petitioner over the period has been deteriorating. A few objectors have submitted that reduction in installed capacity would reduce the availability of electricity in the State and the distribution utilities will have to resort to procurement of electricity from outside the State at higher cost.

GSECL's Response:

GSECL has submitted that a part of the total installed capacity is old and nearing the end of its useful life. However, GSECL has been managing to operate these plants through proper R&M. The petitioner has further submitted that generation is no more a monopoly business and private parties are also setting up generation plants within the state. GSECL has also submitted that it has planned 9,395 MW capacity addition by installing new power stations in 11^{th} and 12^{th} plans.

Commission's view:

The Commission has taken note of the submissions made by the petitioner.

3 Annual Performance Review for FY 2008-09

3.1 Background

The Gujarat Electricity Regulatory Commission (Multi Year Tariff Framework) Regulations, 2007 has been notified on 20th December 2007. Under the provisions of this Regulation the Gujarat Electricity Regulatory Commission notified the first Multi Year Tariff (MYT) control period as the three-year period comprising FY 2008-09, FY 2009-10 and FY2010-11. Under the MYT regulations, for the specified control period, Gujarat State Electricity Corporation Limited submitted the projected Annual Revenue Requirement (ARR) for each year of the control period. The Commission undertook an analysis of the submissions made by the petitioner and approved an ARR for each year of the Control Period along with the tariff for the FY 2008-09 vide its Tariff Order dated 17th January 2009. Now, the first year of the MYT Control period has elapsed and the provisional accounts of the petitioner are available. The petitioner has therefore approached the Commission for annual performance review for the FY 2008-09 and the annual determination of tariff for the FY 2009-10.

This chapter of the order deals with the Annual Performance Review for FY 2008-09 for the generating stations of GSECL.

3.2 Generating Stations of GSECL

The Petitioner has submitted that it owns and operates the following generating stations:

- Four coal based thermal generating stations;
- One lignite fired thermal station;
- One thermal station with oil and gas fired units;
- One gas based station;
- Two major hydel stations and two mini hydel stations.

The details of these stations in terms of their age and capacity are provided in Table 1.

Table 1: Installed Capacity of GSECL for FY 2008-09

Name of the station	Unit No.	Capacity of the unit (MW)	Date of commissioning	Age (Years)
Ukai	1	120	19/03/76	33
	2	120	23/06/76	33
	3	200	21/01/79	30
	4	200	11/09/79	30
	5	210	30/01/85	24
	Sub-Total	**850**		

Name of the station	Unit No.	Capacity of the unit (MW)	Date of commissioning	Age (Years)
Gandhinagar	1	120	13/03/77	32
	2	120	10/04/77	32
	3	210	20/03/90	19
	4	210	20/07/91	18
	5	210	17/03/98	11
	Sub-Total	**870**		
Wanakbori	1	210	23/03/82	27
	2	210	15/01/83	26
	3	210	15/03/84	25
	4	210	09/03/86	23
	5	210	23/09/86	23
	6	210	18/11/87	21
	7	210	31/12/98	10
	Sub-Total	**1470**		
Sikka	1	120	26/03/88	21
	2	120	31/03/93	16
	Sub-Total	**240**		
KLTPS	1	70	29/03/90	19
	2	70	25/03/91	18
	3	75	31/03/97	12
	Sub-Total	**215**		
Dhuvaran	5 – Oil	110	27/05/72	37
	6 – Oil	110	10/09/72	37
	7 – Gas	106.617	28/01/04	05
	8 – Gas	112.45	01/11/07	01
	Sub-Total	**439.067**		
Utran (New)	GT – 1	30	17/12/92	16
	GT – 2	30	28/12/92	16
	GT – 3	30	07/05/93	15
	STG	45	17/07/93	15
	Sub-Total	**135**		
Total GSECL (Coal + Lignite)		**3645**		
Total GSECL (Oil)		**220**		
Total GSECL (Gas)		**354.07**		
Total GSECL (Thermal)		**4219**		
Ukai Hydro	1	75	08/07/74	35
	2	75	13/12/74	34
	3	75	22/04/75	34
	4	75	04/03/76	33
Ukai LBC	1	2.5	08/12/87	21
	2	2.5	19/02/88	21
	Sub Total	**305**		
Kadana Hydro	1	60	31/03/90	19

Name of the station	Unit No.	Capacity of the unit (MW)	Date of commissioning	Age (Years)
	2	60	02/09/90	19
	3	60	03/01/98	11
	4	60	27/05/98	11
	Sub-Total	**240**		
Panam	1	1	24/03/94	15
	2	1	31/03/94	15
	Sub-Total	**2**		
	Total Hydro	**547**		
	Total GSECL as a whole	**4766**		

The petitioner has further submitted that there is a planned capacity addition of 450 MW during the FY 2009-10 as indicated in Table 2:

Table 2: GSECL Generating Stations Expected in FY 2009-10

Name of the station	Capacity of the unit (MW)	Scheduled Date of commercial operation (COD)
Utran Extension	375	September 1, 2009
KLTPS – 4	75	June 30, 2009

The Commission has taken note of the information submitted by the petitioner with regard to the total installed capacity and the capacity addition during the FY 2009-10.

3.3 Operating Parameters

For FY 2008-09, the information on actual operational parameters like target Plant Availability Factor (PAF), Station Heat Rate, Coal Transit Loss, Auxiliary Consumption (AC), Specific Oil Consumption etc. have been submitted by the petitioner. A comparison of the actual performance parameters achieved by the petitioner with the parameters approved by the Commission has also been submitted. The Commission has undertaken the annual performance review of the individual operating parameters for FY 2008-09, which is discussed in the following sections.

3.3.1 Plant Availability

Petitioner's Submission

The petitioner has submitted the availability of individual stations for FY 2008-09 along with the comparison with the approved parameter in the MYT Order. The submission of the petitioner is outlined in Table 3.

Table 3: Actual Plant Availability for FY 2008-09 submitted by GSECL *(in %)*

Sr. No.	Power Station*	MYT Order	GSECL Actual
1	Ukai (1-5)	72.00	65.09
2	Gandhinagar (1-4)	65.00	74.90
3	Gandhinagar 5	90.00	93.52
4	Wanakbori 1-6 TPS	80.00	87.02
5	Wanakbori 7 TPS	90.00	92.02
6	Sikka TPS	75.00	67.25
7	KLTPS 1-3	72.00	66.83
8	Dhuvaran (Oil)	80.00	71.71
9	Dhuvaran (Gas 1)	80.00	61.53
10	Dhuvaran (Gas 2)	87.00	82.21
11	Utran (Gas)	90.00	88.05
12	Ukai Hydro	80.00	91.49
13	Kadana Hydro	80.00	62.98

* *Approved value of KLTPS -4 has not been considered as the plant is yet to be commissioned*

Commission's Analysis

The Commission has analyzed the submission made by the Petitioner and has observed that the generating stations like Ukai (1-5), Sikka TPS, KLTPS 1-3, Dhuvaran Oil, Dhuvaran (Gas 1) and Kadana Hydro have achieved Plant Availability Factor lower than the target Plant Availability Factor which is necessary for recovery of the full annual fixed charges.

The Commission thereafter analyzed the reasons behind the non-achievement of the target Plant Availability Factor. In this regard the petitioner has submitted the reasons for variance in the actual plant availability when compared to the trajectory approved in the MYT Order. Following reasons have been submitted by the petitioner:

UKAI TPS:

- Stabilisation of Unit No. 1 after R&M
- Forced outage of Unit no. 3 on account of axial shift

SIKKA TPS:

- Because of very low availability of sea water during low tide period, load is required to reduce to considerable level resulting reduction in PAF.

KLTPS:

- There is problem of low vacuum due to use of brackish water.
- Inferior quality lignite creating problem of clinker formation and also resulting in low load due to technical limitations.

- Forced outage of KLTPS Unit no. 3 on account of stator earth fault (06.12.08 – 06.02.09) & on account of high vibrations of turbine (13.02.09 – till date)

DHUVRAN (Oil):

- Vacuum problems due to non availability of water from Kanbha pond i.e. Narmada water.
- Because of non availability of sweet water, brackish water from bore well is utilized in condenser which creates scaling within no time. Bullet cleaning of condenser tube is effective for a few days only and again scaling affects the flow of water and vacuum. Also such cleaning consumes about two to three days, affecting the availability of the plants. Because of low vacuum, full load can not be achieved for considerable time and this leads to reduction in PAF.

DHUVRAN (Gas - I):

- Forced Outage in STG of CCPP – I on account of ESV (Emergency Stop Valve) & Condenser Problem (05.02.09 – 22.03.09)

The Commission took note of the above reasons and also noted that for PPA based stations, the operating parameters shall be governed as per the PPA. PPA based stations are indicated in Table 4.

Table 4: PAF as per PPA for PPA based power stations for FY 2008-09 *(in %)*

Sr. No.	Names of PPA based Power Station	PPA PAF	MYT PAF
1	Gandhinagar 5	80	90
2	Wanakbori 7	80	90
3	Dhuvaran – Gas 1	80	80
4	Dhuvaran – Gas 2	80	87
5	Utran Gas	80	90
6	Utran Extension	80	80

The Commission also noted that the PAF specified for recovery of fixed cost for PPA based stations in the MYT Order are different when compared to the PAF specified in respective PPAs. In this regard the petitioner had also approached the Commission seeking clarification for PAF for PPA based stations. Accordingly, the Commission has clarified vide its letter ref. no. GERC/Fina-GSECL-MYT-2009/00329 dated May 15, 2009 that recovery of fixed costs shall be in accordance with the 'Terms and Conditions of Tariff Regulations". Terms and Conditions of Tariff specify that the parameters for PPA based stations shall be as per the respective PPAs. Accordingly, for stations named in Table 4, respective PPAs shall govern the plant availability parameter for recovery of fixed costs.

The Commission has thereafter analyzed the actual Plant Availability Factor achieved during the last three years viz from FY 2005-06 to FY 2007-08 which is provided in Table 5.

Table 5: Actual plant availability for FY 2005-06, FY 2006-07 & FY 2007-08 ***(in %)***

Sr. No.	Power Station	2005-06	2006-07	2007-08
1	Ukai (1-5)	74.86	66.95	69.78
2	Gandhinagar (1-4)	67.15	55.87	68.81
3	Gandhinagar 5	97.23	77.37	94.58
4	Wanakbori 1-6 TPS	83.78	90.01	85.47
5	Wanakbori 7	97.75	82.43	97.66
6	Sikka TPS	70.20	70.20	76.16
7	KLTPS 1-3	35.55	65.54	70.70
8	Dhuvaran (Gas 1)	79.77	27.41	80.39
9	Dhuvaran (Gas 2)	-	-	77.74
10	Utran (Gas)	92.99	92.59	87.58
11	Utran Extension	-	-	-

After analyzing the historical trend of the plant availability, the submission of the petitioner and the operating parameter provided in the respective PPAs the Commission approves the plant availability indicated in Table 6.

Table 6: Approved Plant Availability for FY 2008-09 ***(in %)***

Sr. No.	Power Station	MYT Order	GSECL Actual	Considered for APR
1	Ukai (1-5)	72.00	65.09	65.09
2	Gandhinagar (1-4)	65.00	74.90	65.00
3	Gandhinagar 5*	90.00	93.52	80.00
4	Wanakbori 1-6 TPS	80.00	87.02	80.00
5	Wanakbori 7 TPS*	90.00	92.02	80.00
6	Sikka TPS	75.00	67.25	75.00
7	KLTPS 1-3	72.00	66.83	72.00
8	Dhuvaran (Oil)	80.00	71.71	80.00
9	Dhuvaran (Gas 1)*	80.00	61.53	80.00
10	Dhuvaran (Gas 2)*	87.00	82.21	80.00
11	Utran (Gas)*	90.00	88.05	80.00
12	Ukai Hydro	80.00	91.49	80.00
13	Kadana Hydro	80.00	62.98	80.00

** PPA based stations*

The Commission has considered the following principle while approving the PAF:

- For PPA based stations PAF has been considered from the respective PPAs.
- The PAF for Ukai has been revised downwards in light of the reasons submitted by the petitioner.

- For other stations the PAF approved under the MYT Order has been considered. The Commission has found that the reasons submitted for lower PAF for other stations are not tenable and could have been handled with adequate R&M plan.

The Commission takes note that the fixed cost recovery shall be considered based on the PAF now approved by the Commission.

3.3.2 Plant Load Factor

Petitioner's Submission

The petitioner has submitted the actual Plant Load Factor (PLF) for FY2008-09 for each of the stations which are indicated in Table 7.

Table 7: Actual PLF for GSECL stations for FY 2008-09 *(in %)*

Sr. No.	Stations	MYT Order	GSECL Actual
1.	Ukai (1-5)	72.00	64.94
2.	Gandhinagar (1-4)	65.00	73.25
3.	Gandhinagar 5	92.00	94.12
4.	Wanakbori 1-6 TPS	85.00	85.32
5.	Wanakbori 7 TPS	92.00	92.19
6.	Sikka TPS	75.00	67.06
7.	KLTPS 1-3	72.00	67.46
8.	Dhuvaran (Oil)	77.00	61.64
9.	Dhuvaran (Gas 1)	90.00	56.41
10.	Dhuvaran (Gas 2)	90.00	67.86
11.	Utran (Gas)	92.00	73.55
12.	Ukai Hydro	24.00	17.47
13.	Kadana Hydro	9.00	3.92

Note: Approved Value of KLTPS is not considered as the plant has not been commission in FY 2008-09

Commission's Analysis

The Commission has observed that for the FY 2008-09, stations named in Table 8 have achieved a lower PLF.

Table 8: GSECL Stations with lower actual PLF for FY 2008-09 *(in %)*

Sr. No.	Stations	MYT Order	GSECL Actual	Performance
1.	Ukai (1-5)	72.00	64.94	Lower
2.	Sikka TPS	75.00	67.06	Lower
3.	KLTPS 1-3	72.00	67.46	Lower
4.	Dhuvaran (Oil)	77.00	61.64	Lower

5.	Dhuvaran (Gas 1)	90.00	56.41	Lower
6.	Dhuvaran (Gas 2)	90.00	67.86	Lower
7.	Utran (Gas)	92.00	73.55	Lower
8.	Ukai Hydro	24.00	17.47	Lower
9.	Kadana Hydro	9.00	3.92	Lower

The Commission has taken note of the above aspects.

Based on the above rationale the Commission takes note of the PLF submitted by the petitioner indicated in Table 9.

Table 9: PLF considered for FY 2008-09 *(in %)*

Sr. No.	Power Station	Considered for APR
1	Ukai (1-5)	64.94
2	Gandhinagar (1-4)	73.25
3	Gandhinagar 5	94.12
4	Wanakbori 1-6 TPS	85.32
5	Wanakbori 7 TPS	92.19
6	Sikka TPS	67.06
7	KLTPS 1-3	67.46
8	Dhuvaran (Oil)	61.64
9	Dhuvaran (Gas 1)	56.41
10	Dhuvaran (Gas 2)	67.86
11	Utran (Gas)	73.55
12	Ukai Hydro	17.47
13	Kadana Hydro	3.92

3.3.3 Auxiliary consumption

Petitioner's Submission

The Petitioner has submitted the actual auxiliary consumption recorded for each of the stations during the FY 2008-09 which is provided in Table 10

Table 10: Actual auxiliary consumption for FY 2008-09 *(in %)*

Sr. No.	Power Station	MYT Approved	GSECL (Actual)
1	Ukai (1-5)	9.00	8.88
2	Gandhinagar (1-4)	11.12	10.00
3	Gandhinagar 5	9.00	8.95
4	Wanakbori 1-6 TPS	9.00	8.60
5	Wanakbori 7 TPS	9.00	8.59
6	Sikka TPS	10.70	11.10

7	KLTPS 1-3	12.25	12.87
8	Dhuvaran (Oil)	11.50	11.17
9	Dhuvaran (Gas 1)	3.00	6.01
10	Dhuvaran (Gas 2)	3.00	4.48
11	Utran (Gas)	4.00	4.58
12	Ukai Hydro	0.70	0.84
13	Kadana Hydro	1.19	2.95

Commission's Analysis

The Commission has taken note of the submission made by the petitioner with regard to the actual auxiliary consumption. The Commission observes that with regard to PPA based stations auxiliary consumption shall be governed based on the respective PPAs. For the purpose of the annual performance review the Commission has considered the submission of the petitioner in regard to the PPA based stations. For other stations the Commission has considered the approved auxiliary consumption as per the MYT Order. The Commission further noted that wherever there has been higher auxiliary consumption, the petitioner has indicated reasons in its petition. However, the Commission is of the opinion that the submitted reasons are not tenable. The Commission thereafter directed the petitioner during the course of technical validation to provide detailed clarification in regard to the increase in auxiliary consumption. However, the petitioner failed to provide sufficient explanation for the same.

In the absence of detailed explanation the Commission approves the auxiliary consumption indicated in Table 11 for the purpose of the annual performance review:

Table 11: Approved auxiliary consumption for FY 2008-09 *(in %)*

Sr. No.	Power Station	MYT Order	Considered for APR
1	Ukai (1-5)	9.00	9.00
2	Gandhinagar (1-4)	11.12	11.12
3	Gandhinagar 5	9.00	8.95
4	Wanakbori 1-6 TPS	9.00	9.00
5	Wanakbori 7 TPS	9.00	8.59
6	Sikka TPS	10.70	10.70
7	KLTPS 1-3	12.25	12.25
8	Dhuvaran (Oil)	11.50	11.50
9	Dhuvaran (Gas 1)	3.00	6.01
10	Dhuvaran (Gas 2)	3.00	4.48
11	Utran (Gas)	4.00	4.58
12	Ukai Hydro	0.70	0.70
13	Kadana Hydro	1.19	1.19

3.3.4 Station Heat Rate (SHR)

Petitioner's Submission

The petitioner has submitted the details of actual Station Heat Rates (SHR) recorded for FY 2008-09 for all the Stations. The information submitted by the petitioner is indicated in Table 12.

Table 12: Actual SHR for FY 2008-09 for GSECL Stations

Sr. No.	Power Station	MYT Approved (kcal/kWh)	GSECL Actual (kcal/kWh)
1	Ukai (1-5)	2775	2771
2	Gandhinagar (1-4)	2855	2739
3	Gandhinagar 5	2460	2499
4	Wanakbori 1-6 TPS	2650	2667
5	Wanakbori 7 TPS	2460	2545
6	Sikka TPS	3100	3184
7	KLTPS 1-3	3300	3422
8	Dhuvaran (Oil)	3200	2979
9	Dhuvaran (Gas 1)	1950	2049
10	Dhuvaran (Gas 2)	1950	1945
11	Utran (Gas)	2150	2146

The petitioner has further submitted that GSECL has attempted to maintain the performance of the stations within the approved limit. The petitioner has further submitted the reasons for deviation in actual station heat rates observed by GSECL from the approved values. These reasons are outlined below:

Gandhinagar – 5 TPS

- Coal Mill problem at Gandhinagar 5 TPS

Wanakbori

- Vacuum problem at Wanakbori (1-6) TPS.
- Vacuum problem and BTL at Wanakbori 7 TPS.

Sikka TPS

- Partial loading and Vacuum problem at Unit 1 of Sikka TPS because of low vacuum during low tide.
- Vacuum problem at Unit 2 of Sikka TPS because of low vacuum due to low availability of sea water especially during low tide.

KLTPS (1-3) TPS

- Poor quality of Lignite at Unit 1 & 2 of KLTPS.

- Poor quality of Lignite at Unit 3 KLTPS. Further, two stages of the turbine are removed and one ESP Pass is not in service, which causes partial operation.

Dhuvaran (Gas 1)

- Frequent start / stop of unit due to backing down, unit run on partial load at Dhuvaran (Gas 1) generating station.

Commission's Analysis

The Commission observes that for PPA based stations, the SHR shall be considered as per the respective PPAs of those stations. In this regard the petitioner has submitted that it has considered the operating parameter for PPA based stations accordingly.

The Commission has thereafter analyzed the actual SHR for non PPA based stations. In this regard the Commission has observed that actual SHR has been higher for the following non PPA based stations:

- Wanakobri 1-6 TPS
- Sikka TPS
- KLTPS 1-3

The Commission has analyzed the reasons submitted by the petitioner for higher SHR for the above stations and is of the view that the submitted reasons are not tenable. The Commission, thereafter, during the course of the technical validation asked the petitioner to provide appropriate reasons for higher SHR in regard to the above stations. In the absence of any further clarification from the petitioner, the Commission considers the SHR as approved in the MYT Order for all non-PPA based stations.

Accordingly, for the purpose of annual performance review the Commission approves the SHR for non PPA based stations as approved under the MYT Order and for PPA based stations the Commission approves the SHR as per the respective PPAs. SHR as approved now for the purpose of annual performance review is indicated in Table 13. The SHR now approved for the stations shall be considered for the purpose of computing the gains and losses as per the MYT regulations.

Table 13: Approved SHR for FY 2008-09

Sr. No.	Power Station	MYT Approved (kcal/kWh)	Considered for APR (kcal/kWh)
1	Ukai (1-5)	2775	2775
2	Gandhinagar (1-4)	2855	2855
3	Gandhinagar 5*	2460	2460

4	Wanakbori 1-6 TPS	2650	2650
5	Wanakbori 7 TPS*	2460	2460
6	Sikka TPS	3100	3100
7	KLTPS 1-3	3300	3300
8	Dhuvaran (Oil)	3200	3200
9	Dhuvaran (Gas 1) *	1950	1950
10	Dhuvaran (Gas 2) *	1950	1950
11	Utran (Gas) *	2150	2150

** PPA based stations*

3.3.5 Secondary Fuel Oil Consumption

Petitioner's Submission

The petitioner has submitted the information on the actual secondary fuel oil consumption recorded for each of the generating stations. The information submitted by the petitioner is provided in Table 14.

Table 14: Secondary fuel oil consumption for FY 2008-09

Sr. No.	Power Station	MYT Approved (ml/kWh)	GSECL Actual (ml/kWh)
1	Ukai (1-5)	2.00	5.92
2	Gandhinagar (1-4)	3.50	1.49
3	Gandhinagar 5	3.50	0.28
4	Wanakbori 1-6 TPS	1.00	0.50
5	Wanakbori 7 TPS	3.50	0.41
6	Sikka TPS	2.77	5.36
7	KLTPS 1-3	3.00	3.68

The petitioner has further submitted the reasons for the higher specific oil consumption during the FY 2008-09:

Ukai TPS

- Partial loading and frequent start and stop of Unit 1 of Ukai TPS. After the R&M of the unit, because of the technical constraints, Unit No. 1 is not operating on full load. The Original Equipment Manufacturer (OEM) is trying to resolve the problem, and hence, frequent start/stop is much higher than that in normal operation. Further, due to technical constraints, there is partial load operation of the unit.
- Partial Loading and R&M of Unit 2 of Ukai TPS.

Sikka TPS

- Partial loading and Vacuum problem at Unit 1 & 2 of Sikka TPS because of low vacuum due to low availability of sea water especially during low tide.

KLTPS (1-3)

- Poor quality of Lignite at Unit 3 of KLTPS

Commission's Analysis

The Commission is of the view that the parameter related to specific oil consumption with regard to PPA based stations should be considered as per the respective PPAs. In this regard the petitioner has submitted that the submission for specific oil consumption for PPA based stations has been made as per the applicable PPAs.
The Commission has thereafter analyzed the actual specific oil consumption for non PPA based stations. In this regard the Commission has observed that actual specific oil consumption has been higher for the following non PPA based stations:

- Ukai (1-5)
- Sikka TPS
- KLTPS 1-3

The Commission has thereafter reviewed the reasons for deviations submitted by the petitioner. The Commission is of the view that higher specific oil consumption brings inefficiency which leads to higher generation cost and ultimately burdens the consumers. The Commission considers that the petitioner should strive to achieve the specified targets for secondary fuel oil consumption. Therefore, for all non PPA stations, for the purpose of annual performance review, the Commission approves the specific oil consumption approved in the MYT Order. For PPA based stations the Commission approves the specific oil consumption as submitted by the petitioner. Gains/loss for non PPA stations due to variation in specific oil consumption shall accordingly be computed as provided under the regulations. The specific oil consumption parameter now approved by the Commission is provided in Table 15.

Table 15: Approved secondary fuel oil consumption for FY 2008-09

Sr. No.	Power Station	MYT Approved (ml/kWh)	Considered for APR (ml/kWh)
1	Ukai (1-5)	2.00	2.00
2	Gandhinagar (1-4)	3.50	3.50
3	Gandhinagar 5*	3.50	0.28
4	Wanakbori 1-6 TPS	1.00	1.00
5	Wanakbori 7 TPS*	3.50	0.41
6	Sikka TPS	2.77	2.77
7	KLTPS 1-3	3.00	3.00

** PPA based stations*

3.3.6 Transit Losses

Petitioner's Submission

The petitioner has submitted the details of the transit loss achieved during the FY 2008-09 which is indicated in Table 16.

Table 16: Transit Loss for FY 2008-09 submitted by GSECL

Sr. No.	Power Station	MYT Approved	GSECL Actual
1	Ukai (1-5)	1.20%	1.20%
2	Gandhinagar (1-4)	1.40%	1.40%
3	Gandhinagar 5	1.40%	1.40%
4	Wanakbori 1-6 TPS	1.50%	1.50%
5	Wanakbori 7 TPS	1.50%	1.50%
6	Sikka TPS	2.00%	2.00%

Commission's Analysis

The Commission observes that the actual transit loss during the FY 2008-09 has been exactly equal to the approved level. The Commission therefore directed the Petitioner, during the course of the public hearing on 29th October 2009, to submit the computation of the actual transit loss. Subsequently, the Commission also discussed this issue of transit loss during the course of technical validation. The petitioner assured that the submission of actual computation of transit losses shall be done. However, the Commission has observed that the petitioner has failed to submit the desired information.

In the absence of the actual computation, the Commission considers the transit losses at the level approved in its MYT order of 17th January 2009. The transit loss level now approved for the purpose annual performance review is provided in Table 17.

Table 17: Approved Transit Loss for FY 2008-09 *(in %)*

Sr. No.	Power Station	MYT Approved	Considered for APR
1	Ukai (1-5)	1.20	1.20
2	Gandhinagar (1-4)	1.40	1.40
3	Gandhinagar 5	1.40	1.40
4	Wanakbori 1-6 TPS	1.50	1.50
5	Wanakbori 7 TPS	1.50	1.50
6	Sikka TPS	2.00	2.00

3.3.7 Gross generation and Net generation

Petitioner's Submission

The petitioner has submitted the gross generation and net generation for FY 2008-09 which is provided in

Table 18. The petitioner has computed net generation after considering the actual auxiliary consumption recorded by GSECL.

Table 18: Gross & Net Generation for FY 2008-09 as submitted by GSECL

Sr. No.	Power Station	MYT Approved		Submitted by GSECL	
		Gross Generation (MUs)	Net Generation (MUs)	Gross Generation (MUs)	Net Generation (MUs)
1	Ukai (1-5)	5361	4879	4835	4406
2	Gandhinagar (1-4)	3758	3340	4235	3811
3	Gandhinagar 5	1692	1540	1731	1577
4	Wanakbori 1-6 TPS	9382	8538	9417	8607
5	Wanakbori 7 TPS	1692	1540	1696	1550
6	Sikka TPS	1577	1408	1410	1253
7	KLTPS 1-3	1356	1190	1271	1107
8	Dhuvaran (Oil)	1484	1313	1188	1055
9	Dhuvaran (Gas 1)	840	815	523	491
10	Dhuvaran (Gas 2)	887	860	663	633
11	Utran (Gas)	1088	1044	870	830
12	Ukai Hydro	641	637	467	463
13	Kadana Hydro	191	189	83	81
	Total	**29949**	**27293**	**28389**	**25864**

Commission's Analysis

The Commission has taken note of the gross and net generation achieved by the petitioner for the FY 2008-09. The Commission observes that the aggregate gross and aggregate net generation for most of the stations has been lower than the generation approved under the MYT Order.

The Commission has analyzed that variance in PLF and auxiliary consumption has led to lower aggregate generation. The Commission has taken note of the gross generation and net generation as submitted by the petitioner.

3.3.8 Fuel related parameters

Petitioner's Submission

The Petitioner has submitted the information in regard to the weighted average Gross Calorific value of primary fuels and secondary fuel along with the prices of primary & secondary fuel recorded for the FY 2008-09 which is indicated in Table 19.

Table 19: Actual fuel related parameter for FY 2008-09 as submitted by GSECL

Sr. No.	Power Station	Wt. Avg GCV of Primary Fuel (kcal/kg, kcal/l, kcal/scm)	Wt. Avg GCV of Secondary Fuel Oil (kcal/l)	Cost of Coal (Rs/MT)			Cost of other Primary Fuel (Rs/ MT, Rs/ kl, Rs/scm)	Cost of Secondary Fuel Oil (Rs/ kl)	Coal Mix (%)		
				Indigenous	Washed	Imported			Indigenous	Washed	Imported
1	Ukai (1-5)	3903	10466	1,975	2,082	-		32285	25.07%	74.93%	0.00%
2	Gandhinagar (1-4)	3946	10456	2,598	2,493	4,625		26885	31.53%	52.33%	16.13%
3	Gandhinagar 5	3959	10456	2,622	2,482	4,605		26885	29.34%	52.75%	17.91%
4	Wanakbori 1-6 TPS	3756	10508	2,579	2,389	5,126		27729	38.33%	59.85%	1.82%
5	Wanakbori 7 TPS	3752	10508	2,577	2,388	5,123		27729	39.06%	59.20%	1.74%
6	Sikka TPS	3928	10338	3,080	2,723	3,735		37873	76.99%	6.26%	16.75%
7	KLTPS 1-3	2478	10363				676	31910			
8	Dhuvaran (Oil)	10363					16528				
9	Dhuvaran (Gas 1)	9892					14.98				
10	Dhuvaran (Gas 2)	9831					22.48				
11	Utran (Gas)	9720					13.60				

Commission's Analysis

The Commission has taken note of the submissions made by the petitioner with regard to the fuel related parameters. The Commission observes that fuel related parameters like fuel calorific value, cost of fuel and fuel mix have been considered uncontrollable by the petitioner. In this regard the Commission is of the view that fuel related parameters should be considered uncontrollable. In regard to the actual calorific value and the price of fuel, the Commission directed the petitioner to submit fuel bills on a sample basis. The petitioner has accordingly submitted copies of the fuel bills. The Commission subsequently verified the calorific value of the fuel and the price from the fuel bills submitted by the petitioner.

The Commission further notes that any variance due to fuel related parameters is permissible as a pass through by way of FPPPA. Therefore, the increase in variable cost of generation could have been recovered by the petitioner.

3.3.9 Variable cost & computation of gains/losses

Petitioner's Submission

The petitioner has submitted details of plant wise expense based on the actual operating and fuel related parameters. Fuel expenses submitted by the petitioner for each of the stations are provided in Table 20.

Table 20: Fuel expense for FY 2008-09 submitted by GSECL

Sr. No.	Power Station	MYT Approved (Rs. Crore)	GSECL (Actual) (Rs. Crore)
1	Ukai (1-5)	733.85	790 49
2	Gandhinagar (1-4)	583.34	864.63
3	Gandhinagar 5	226.16	321.44
4	Wanakbori 1-6 TPS	1,473.18	1,713.78
5	Wanakbori 7 TPS	251.94	294.34
6	Sikka TPS	280.10	390.05
7	KLTPS 1-3	127.14	132.18
9	Dhuvaran (Oil)	493.18	564.39
10	Dhuvaran (Gas 1)	180.22	162.07
11	Dhuvaran (Gas 2)	190.31	294.90
12	Utran (Gas)	225.90	261.23
	Total	**4,765.32**	**5,789.48**

Commission's Analysis

The Commission has taken note of the actual fuel expense submitted by the petitioner. The Commission has observed that the actual fuel expense is higher than the approved fuel expense. The Commission is of the view that for the purpose of annual performance review the fuel related parameters like calorific value of fuel, cost of fuel and blending ratio should be considered based on the actual. However, the operating parameters like station heat rate, specific oil consumption and auxiliary consumption should be considered based on the parameters now approved by the Commission after the annual performance review. With regard to PLF, the Commission has considered the actual PLF achieved by each of the stations during the FY 2008-09.

The Commission has verified the fuel expense incurred by the petitioner from the provisional accounts of the petitioner. The details of the fuel expense are provided in Table 21.

Table 21: Fuel Expense verified from provisional accounts for FY 2008-09

Sr. No.	Particulars	FY2008-09 (Rs. Crores)
1	Coal	4,272.92
2	Oil	721.37
3	Gas	753.09
4	Water	96.89
5	Other Fuel related cost	81.55
	Total	**5,925.82**

Subsequent to the verification of the fuel expenses the Commission has computed the gains & losses for the non PPA based stations. Commission is of the view that gains/losses shall only be computed for non PPA based stations. Further, the Commission considers that the variation in the variable charges due to change in operating parameters shall be controllable in nature and shall be treated as per the provisions of the MYT regulations. The variable charges computed for each of the stations and the gains/losses are indicated in Table 22.

Table 22: Approved gains/losses on variable charges FY 2008-09

Sr. No.	Power Station	Fuel Cost Incurred by GSECL	Fuel Cost with Approved Operational Parameters	Gain/(Loss) due to Controllable Factor
1	Ukai (1-5)	790.49	725.57	(64.92)
2	Gandhinagar (1-4)	864.63	873.00	8.37
3	Gandhinagar 5*	321.44	327.15	-
4	Wanakbori 1-6 TPS	1,713.78	1,648.53	(65.25)
5	Wanakbori 7 TPS*	294.34	295.36	-
6	Sikka TPS	390.05	369.66	(20.39)
7	KLTPS 1-3	132.18	125.44	(6.74)
8	Dhuvaran (Oil)	564.39	606.26	41.87
9	Dhuvaran (Gas 1)*	162.07	155.54	-

10	Dhuvaran (Gas 2)*	294.90	298.11	-
11	Utran (Gas)*	261.23	261.67	-
12	**Total**	**5,789.48**	**5,686.28**	**(107.07)**

** Indicates PPA based stations*

3.3.10 Fixed Cost components

The fixed charges comprises of the following components:

- Depreciation
- Interest & Finance Charges
- Income Tax
- Return on Equity
- Operations & Maintenance Cost
- Interest on Working Capital

The details of each of the above items have been dealt in the following sections.

3.3.10.1 Depreciation for FY 2008-09

Petitioner's Submission

The petitioner has submitted the actual depreciation for FY 2008-09 at Rs.333.98 Crores which is higher than Rs. 306.45 crore approved as depreciation for FY 2008-09 under the MYT Order.

The petitioner has further submitted that the variance in the amount of depreciation should be considered as uncontrollable. Based on this principle the petitioner has submitted that it has incurred a loss of Rs 29.46 Crores for FY 2008-09.
The details of the submission made by the petitioner in regard to the amount of depreciation for each of the stations along with the computation of gain / loss are outlined in Table 23.

Table 23: Station wise depreciation for FY 2008-09 submitted by petitioner

(*Rs. Crores)*

Sr. No.	Power Station	MYT Approved	GSECL Provisional	Gain/(Loss)
1	Ukai (1-5)	31.43	44.39	(12.96)
2	Gandhinagar (1-4)	42.84	35.07	7.77
3	Gandhinagar 5	33.02	22.72	
4	Wanakbori 1-6 TPS	38.73	55.19	(16.46)
5	Wanakbori 7 TPS	32.70	22.56	
6	Sikka TPS	18.24	20.24	(2.00)
7	KLTPS 1-3	35.25	40.18	(4.93)

Sr. No.	Power Station	MYT Approved	GSECL Provisional	Gain/(Loss)
8	Dhuvaran (Oil)	9.10	14.70	(5.60)
9	Dhuvaran (Gas 1)	15.01	11.63	
10	Dhuvaran (Gas 2)	20.76	14.65	
11	Utran (Gas)	13.96	41.97	
12	Ukai Hydro	4.42	2.99	1.43
13	Kadana Hydro	10.99	7.69	3.30
14	**Total**	**306.45**	**333.98**	**(29.46)**

Commission's Analysis

The Commission has examined the submission made by the petitioner. The Commission has also examined the amount of depreciation from the provisional accounts submitted by the petitioner. The Commission has found that the amount of depreciation as per the provisional accounts is Rs. 333.71 crore which is marginally lower than the amount indicated in the petition which is Rs.333.98 crore. The Commission thereafter directed the petitioner to clarify the difference between both the amounts. The petitioner has clarified that the amount of depreciation contained in the submitted accounts as well as the petition are provisional in nature. The petitioner further clarified that the petition was prepared earlier and subsequent change has been observed during the course of the audit. Accordingly, the amount of depreciation in the petition is different from the amount of depreciation indicated in the provisional accounts.

The Commission thereafter asked the petitioner to rectify the amount of depreciation indicated in the petition considering the variance in the provisional accounts. However, the Commission observes that the petitioner has failed to rectify the amount of depreciation indicated in the petition. In the absence of rectification of the amount of depreciation the Commission has proportionately adjusted the amount of difference between the aggregate depreciation as per the petition and the provisional accounts from the non PPA based stations.

The Commission considers that depreciation for PPA based stations should be as per the respective PPAs. Accordingly, there shall be no computation of gains / losses for PPA based stations.

In regard to the computation of gains / losses the Commission has observed that the regulation 9.6.2(e) considers depreciation as a controllable expense. In this regard the Commission is of the view that amount of depreciation is dependent on the amount of capitalization. Therefore, any variance in the amount of capitalization, rate of depreciation or the disposal of existing assets would have impact on the amount of depreciation. In light of this the Commission is of the view that the parameters which impact depreciation should be treated as uncontrollable.

Based on the above principle the Commission approves the depreciation for each of the stations. The Commission also approves the gains / losses for each of the stations. The amount and depreciation and gains / losses provisionally approved based on the annual performance review for FY 2008-09 is indicated in Table 24.

Table 24: Provisionally approved station wise depreciation for FY 2008-09

(*Rs. crores)*

Sr. No.	Power Station	MYT Depreciation	Provisionally Considered for APR	Uncontrollable Gain/(Loss)
1	Ukai (1-5)	31.43	44.35	(12.92)
2	Gandhinagar (1-4)	42.84	35.03	7.81
3	Gandhinagar 5	33.02	22.72	
4	Wanakbori 1-6 TPS	38.73	55.14	(16.41)
5	Wanakbori 7 TPS	32.70	22.56	
6	Sikka TPS	18.24	20.22	(1.98)
7	KLTPS 1-3	35.25	40.14	(4.89)
8	Dhuvaran (Oil)	9.10	14.68	(5.58)
9	Dhuvaran (Gas 1)	15.01	11.63	
10	Dhuvaran (Gas 2)	20.76	14.65	
11	Utran (Gas)	13.96	41.97	
12	Ukai Hydro	4.42	2.99	1.43
13	Kadana Hydro	10.99	7.68	3.31
14	**Total**	**306.45**	**333.74**	**(29.24)**

3.3.10.2 Advance against depreciation

Petitioner's Submission

The Petitioner has submitted that the actual amount of advance against depreciation (AAD) for FY 2008-09 is NIL compared to the amount of Rs. 10.46 crore approved under the MYT Order. The Petitioner has considered the parameters that impact the amount of AAD as uncontrollable. Based on this principle the petitioner has computed the amount of gain as Rs. 10.46 crore. The submission of the petitioner is summarized in Table 25.

Table 25: Advance against depreciation for FY 2008-09 submitted by the petitioner

(*Rs. crores)*

Sr. No.	Power Station	MYT Approved	GSECL Actual	Gain/(Loss) due to Uncontrollable Factor
1	KLTPS 4	10.46	0	10.46
2	**Total**	**10.46**	**0**	**10.46**

Commission's Analysis

The Commission has examined the submission of the petitioner and has observed that the station KLTPS 4 has not achieved its commercial operation during the FY

2008-09. Accordingly, there shall be no requirement of AAD. Therefore, the Commission has approved the submission of the petitioner.

Further, the Commission is of the opinion that the gains/losses on account of AAD should be considered as uncontrollable and be treated accordingly as per the provisions of the MYT Regulations.

In view of the above the Commission approves advance against depreciation as submitted by the petitioner. However, the Commission observes that the plant was not commissioned in FY 2008-09, therefore the computed gains / losses are only indicative. Advance against depreciation now considered for APR for FY 2008-09 by the Commission appears in Table 24.

Table 26: Approved advance against depreciation for FY 2008-09

(*Rs. crores)*

Sr. No.	Power Station	MYT AAD	Considered for APR	Gain/(Loss) due to Uncontrollable Factor
1	KLTPS 4	10.46	0	10.46
2	**Total**	**10.46**	**0**	**10.46**

3.3.10.3 Interest & Finance charges

Petitioner's Submission

The petitioner has submitted that for the FY 2008-09 it has incurred Rs. 297.67 crores towards interest and finance charges against an approved amount of Rs. 297.59 crores under the MYT Order.

The petitioner has thereafter drawn reference to the MYT regulations where the Interest and finance charges have been classified as "uncontrollable" to the extent of changes in the applicable interest rates. Taking the above into consideration, the petitioner has segregated the parameters impacting gains/losses on account in interest and finance charges into two parts i.e. one on account of "controllable" factors and the other on account of "uncontrollable" factors i.e. on account of variation in the actual rate of interest and the rate approved by the Commission in its MYT orders.

The petitioner has submitted that based on the above principle it has incurred a net gain of Rs. 6.59 crore during FY 2008-09 which comprises of total loss of Rs. 13.85 crores on account of "controllable" factors and gain of Rs 20.44 crores on account of "uncontrollable" factors.

The detailed submission of the petitioner comparing the value of Interest and Finance Charges actually incurred during FY 2008-09 with the value approved by the Commission in the MYT Order is provided in Table 27.

Table 27: Interest & Finance charges for 2008-09 submitted by petitioner

(Rs. crores)

Sr. No.	Power Station	MYT Interest & Finance Charges	Submitted Interest & Finance Charges	Gain/(Loss) – Controllable	Gain/(Loss) – Uncontrollable
1	Ukai (1-5)	51.30	55.94	(5.95)	1.31
2	Gandhinagar (1-4)	56.31	50.12	2.38	3.81
3	Gandhinagar 5	0.40	0.38	-	-
4	Wanakbori 1-6 TPS	54.24	54.54	(5.49)	5.19
5	Wanakbori 7 TPS	1.47	1.40	-	-
6	Sikka TPS	21.69	21.62	(2.34)	2.41
7	KLTPS 1-3	45.98	42.08	(0.79)	4.68
8	Dhuvaran (Oil)	11.28	9.57	0.65	1.06
9	Dhuvaran (Gas 1)	10.42	12.80	-	-
10	Dhuvaran (Gas 2)	17.23	21.90	-	-
11	Utran (Gas)	10.00	9.72	-	-
12	Ukai Hydro	4.95	4.81	(0.39)	0.53
13	Kadana Hydro	12.32	12.80	(1.92)	1.45
14	**Total**	**297.59**	**297.67**	**(13.85)**	**20.44**

Commission's Analysis

The Commission has examined the submission made by the petitioner. The Commission has also verified the interest & finance charges submitted in the petition with the amount indicated in the provisional annual accounts. The Commission has observed that the amount of interest and finance charges mentioned in the provisional accounts is Rs. 278.59 cores, which is lower than the amount claimed by the petitioner.

The Commission therefore directed the petitioner during the course of the technical validation to clarify the variance in the petition and the provisional accounts. The petitioner clarified that the petition was prepared in advance compared to the preparation of the financial accounts. Subsequently, during the preparation of the financial accounts certain variations have been observed. Accordingly, the amount of interest and finance charges indicated in the financial accounts are different compared to the petition.

In light of the variance the Commission directed the petitioner to adjust the amount of interest and finance charges appearing in the petition in line with the provisional accounts. However, the Commission has observed that the petitioner has not submitted the necessary adjustments.

In the absence of submission from the petitioner, the Commission has adjusted the difference between the amount of interest and finance charges mentioned in the petition and the provisional accounts from the amount of interest and finance charges submitted for the non PPA based stations.

The Commission has further observed that Regulation 9.6.2(e) of the MYT Regulations considers parameters which impact the variance in interest and finance charges as controllable. However, the Commission is of the view that interest and finance charges are directly linked to the amount of borrowing. Further, the amount of borrowing is directly linked to the amount of capital expenditure which the petitioner undertakes. Finally, the amount of interest and finance charge is directly dependent on the amount of capitalization undertaken during a financial year. In light of this the Commission is of the view that the parameters which impact interest & finance charges should be treated as uncontrollable.

Based on this approach the Commission has undertaken the provisional annual performance review for FY 2008-09. Accordingly, the Commission provisionally approves the amount of interest and finance charges of Rs. 278.59 crores. The Commission also provisionally approves the amount of Rs. 25.67 crores as gains for the FY 2008-09. The amount of interest and finance charges and the gains provisionally approved by the Commission for FY 2008-09 are indicated in Table 28.

Table 28: Approved interest & finance charges and gains/losses for FY 2008-09

(Rs. crores)

Sr. No.	Power Station	MYT Approved	Considered for APR	Gain/(Loss) – Uncontrollable
1	Ukai (1-5)	51.30	51.69	(0.39)
2	Gandhinagar (1-4)	56.31	46.32	9.99
3	Gandhinagar 5	0.40	0.38	-
4	Wanakbori 1-6 TPS	54.24	50.40	3.84
5	Wanakbori 7 TPS	1.47	1.40	-
6	Sikka TPS	21.69	19.98	1.71
7	KLTPS 1-3	45.98	38.89	7.09
8	Dhuvaran (Oil)	11.28	8.85	2.43
9	Dhuvaran (Gas 1)	10.42	12.80	-
10	Dhuvaran (Gas 2)	17.23	21.90	-
11	Utran (Gas)	10.00	9.72	-
12	Ukai Hydro	4.95	4.45	0.50
13	Kadana Hydro	12.32	11.82	0.50
14	**Total**	**297.59**	**278.59**	**25.67**

3.3.10.4 Return on Equity

Petitioner's Submission

The petitioner has submitted the comparison of the value of return on equity computed on the basis of the opening equity for FY 2008-09 and the addition to equity during the year with the value of return on equity as per the MYT Order. In this regard the petitioner has submitted that there has been a gain of Rs 23.26 crores. The petitioner has considered that the above gains have arisen on account of controllable parameters. The details of the submissions made by the petitioner are summarized in Table 29.

Table 29 : Return on Equity for FY 2008-09 submitted by petitioner

(*Rs. crores)*

Sr. No.	Power Station	MYT Approved	GSECL Actual	Gain/(Loss) due to Controllable Factor
1	Ukai (1-5)	22.77	19.35	3.42
2	Gandhinagar (1-4)	40.42	29.78	10.64
3	Gandhinagar 5	26.84	26.84	
4	Wanakbori 1-6 TPS	52.94	51.22	1.72
5	Wanakbori 7 TPS	26.23	26.03	
6	Sikka TPS	20.29	20.16	.13
7	KLTPS 1-3	45.22	42.68	2.54
8	Dhuvaran (Oil)	7.15	6.88	.27
9	Dhuvaran (Gas 1)	12.52	12.66	
10	Dhuvaran (Gas 2)	14.53	15.65	
11	Utran (Gas)	10.30	10.33	
12	Ukai Hydro	7.72	7.73	(0.01)
13	Kadana Hydro	32.55	27.99	4.56
14	**Total**	**319.48**	**297.32**	**23.26**

Commission's Analysis

The Commission has examined the submission made by the petitioner. The Commission has observed that the petitioner has not considered any additional capitalization for PPA based stations. Further, the Commission has observed that the petitioner has considered the respective applicable rates of return on equity for PPA and non PPA based stations.

The Commission has examined that the return on equity submitted by the petitioner is lower than the amount approved under the MYT Order. The Commission further observes that the Regulation 9.6.2(e) of the MYT regulations considers the parameters impacting the variance in the return on equity as controllable. However, the Commission is of the view that the return on equity depends on the amount of capitalization as well as the debt to equity ratio considered during the financial year and these parameters are uncontrollable in nature. Accordingly, the gains arising on account of the variance in the amount of return on equity submitted by the petitioner and the amount approved under the MYT Order should be treated as uncontrollable.

The Commission has also observed that the variance in return on equity is not on account of any of the actions of the petitioner which could have been undertaken to bring efficiency in its operations.

Based on the above principles the Commission provisionally approves the amount of return on equity for FY 2008-09. Further, the Commission also provisionally approves the amount of gain / losses on account of variance in the amount of return on equity approved under the MYT Order and the provisional amount submitted by the petitioner. The return on equity and the gains /losses provisionally approved for FY 2008-09 by the Commission is provided in Table 30.

Table 30: Provisionally approved return on equity for FY2008-09

(*Rs. crores*)

Sr. No.	Power Station	MYT Approved	Provisionally Considered for APR	Gain/(Loss) due to Uncontrollable Factor
1	Ukai (1-5)	22.77	19.35	3.42
2	Gandhinagar (1-4)	40.42	29.78	10.64
3	Gandhinagar 5	26.84	26.84	
4	Wanakbori 1-6 TPS	52.94	51.22	1.72
5	Wanakbori 7 TPS	26.23	26.03	
6	Sikka TPS	20.29	20.16	0.13
7	KLTPS 1-3	45.22	42.68	2.54
8	Dhuvaran (Oil)	7.15	6.88	0.27
9	Dhuvaran (Gas 1)	12.52	12.66	
10	Dhuvaran (Gas 2)	14.53	15.65	
11	Utran (Gas)	10.30	10.33	
12	Ukai Hydro	7.72	7.73	(0.01)
13	Kadana Hydro	32.55	27.99	4.56
14	**Total**	**319.48**	**297.32**	**23.26**

3.3.10.5 Operations & Maintenance charges

Petitioner's Submission

The petitioner has submitted that against the approved O&M expense of Rs.514.28 crores it has actually incurred Rs. 660.09 crores.

Further, the petitioner has submitted that O&M expenses have been classified as "controllable" under the MYT regulations except for effect of factors like inflation and pay revision which may affect it. Accordingly, the petitioner has categorized O&M expenses as controllable except for the impact of Sixth Pay Commission.

Further, the comparison of the value of O&M expenses actually incurred by the Petitioner during FY 2008-09 with the value approved by the Commission in Multi

Year Tariff Order indicates an under recovery of Rs. 119.09 crores for non PPA based plants. The Petitioner has submitted a classification of the this loss as Rs 58.36 crores due to impact of Sixth Pay Commission which has been considered by petitioner as an uncontrollable factor and remaining loss of Rs 60.73 crore as controllable. The detail of the petitioner's submission is indicated in Table 31.

Table 31: O&M expenses for FY 2008-09 submitted by petitioner

(Rs. crores)

Sr. No.	Power Station	MYT Approved	GSECL Actual	Gain/(Loss) – Controllable	Gain/(Loss) – Uncontrollable
1	Ukai (1-5)	106.07	115.90	5.87	(15.70)
2	Gandhinagar (1-4)	82.36	119.36	(24.87)	(12.13)
3	Gandhinagar 5	19.55	26.25		
4	Wanakbori 1-6 TPS	157.23	175.80	(1.83)	(16.75)
5	Wanakbori 7 TPS	19.34	16.10		
6	Sikka TPS	29.95	47.11	(11.78)	(5.39)
7	KLTPS 1-3	26.83	48.08	(15.99)	(5.26)
8	Dhuvaran (Oil)	27.45	29.46	(2.01)	-
9	Dhuvaran (Gas 1)	7.32	14.63		
10	Dhuvaran (Gas 2)	10.53	14.79		
11	Utran (Gas)	9.57	21.27		
12	Ukai Hydro	7.05	15.66	(5.46)	(3.14)
13	Kadana Hydro	11.03	15.69	(4.66)	-
14	**Total**	**514.28**	**660.09**	**(60.73)**	**(58.36)**

Commission's Analysis

The Commission has examined the submission made by the petitioner for the purpose of annual performance review. The Commission has compared the submission made by the petitioner with the provisional accounts and has found that there is a variance between the amounts reflected in the petition and the amount mentioned in the provisional accounts. The Commission has segregated the O&M expense submitted by petitioner to analyse the expense for each category which is indicated in Table 32.

Table 32: Components of O&M expenses for FY 2008-09 as submitted by the petitioner

(Rs. crores)

Sr. No.	Component of O&M Expense	Amount
1	Employee Expense	346.90
2	A&G Expense	178.03
3	R&M Expense	135.16
	Total	**660.09**

The Commission has further compared the above submission of the petitioner with the provisional accounts. With regard to the sixth pay commission, the Commission is of the opinion that the same should be considered as an uncontrollable expense. Further, the Commission considers the gains/losses on annual performance review of O&M expenses as controllable except for the impact of sixth pay commission which is considered as uncontrollable.

Based on the above approach, the Commission provisionally approves the O&M expenses for FY 2008-09 as indicated in Table 33.

Table 33: Provisionally approved O&M charges for FY 2008-09

(*Rs. crores)*

Sr. No.	Power Station	MYT Approved	Provisionally Considered for APR	Gain/(Loss) – Controllable	Gain/(Loss) - Uncontrollable
1	Ukai (1-5)	106.07	115.90	5.87	(15.70)
2	Gandhinagar (1-4)	82.36	119.36	(24.87)	(12.13)
3	Gandhinagar 5	19.55	26.25		
4	Wanakbori 1-6 TPS	157.23	175.80	(1.83)	(16.75)
5	Wanakbori 7 TPS	19.34	16.10		
6	Sikka TPS	29.95	47.11	(11.78)	(5.39)
7	KLTPS 1-3	26.83	48.08	(15.99)	(5.26)
8	Dhuvaran (Oil)	27.45	29.46	(2.01)	-
9	Dhuvaran (Gas 1)	7.32	14.63		
10	Dhuvaran (Gas 2)	10.53	14.79		
11	Utran (Gas)	9.57	21.27		
12	Ukai Hydro	7.05	15.66	(5.46)	(3.14)
13	Kadana Hydro	11.03	15.69	(4.66)	-
14	**Total**	**514.28**	**660.09**	**(60.73)**	**(58.36)**

3.3.10.6 Interest on working capital

Petitioner's Submission

The petitioner has submitted that it has incurred Rs. 238.45 crores towards interest on working capital compared to Rs. 210.79 crores approved under the MYT Order for FY 2008-09.

The petitioner has further drawn reference to the MYT Regulations where the parameters impacting interest on working capital has been categorized as controllable parameters. In this regard the petitioner has submitted that the interest on working capital is derived based on other factors and hence is not directly controllable. Further, the variation in the rate of interest on working capital loans is also not controllable.

Based on the above explanation the petitioner has submitted that it has made an under recovery of Rs 12.76 crores which is summarized in Table 34. The petitioner has computed the amount of under recovery only for non PPA based stations. Further, the petitioner has also computed the gains/losses considering the interest on working capital as an uncontrollable parameter based on the principle as mentioned in the previous paragraph.

Table 34: Interest on working capital for FY 2008-09 submitted by petitioner

(Rs. crores)

Sr. No.	Power Station	MYT Approved	GSECL Actual	Gains/losses Uncontrollable
1	Ukai (1-5)	33.21	33.50	(0.29)
2	Gandhinagar (1-4)	30.87	36.30	(5.43)
3	Gandhinagar 5	8.77	13.46	
4	Wanakbori 1-6 TPS	66.82	68.39	(1.57)
5	Wanakbori 7 TPS	8.23	12.24	
6	Sikka TPS	13.79	16.49	(2.70)
7	KLTPS 1-3	7.87	8.75	(0.88)
8	Dhuvaran (Oil)	20.03	21.25	(1.22)
9	Dhuvaran (Gas 1)	4.97	5.57	
10	Dhuvaran (Gas 2)	8.19	11.32	
11	Utran (Gas)	6.30	8.78	
12	Ukai Hydro	0.47	0.81	(0.34)
13	Kadana Hydro	1.27	1.60	(0.33)
14	**Total**	**210.79**	238.45	**(12.76)**

Commission's Analysis

The Commission has examined the submission of the petitioner and has found that the computation of interest on working capital has been done on the basis of normative working capital and the interest rate has been considered at the approved level of 10.25%.

With regard to the petitioner's submission that interest on working capital should be considered as uncontrollable, the Commission is of the view that the interest on working capital should be considered as controllable. Accordingly, the Commission approves the amount of working capital as indicated in the Table 35.

Table 35: Approved interest on working capital for FY 2008-09

(Rs. crores)

Sr. No.	Power Station	MYT Approved	Provisionally Considered for APR	Gains/losses Controllable
1	Ukai (1-5)	33.21	33.50	(0.29)
2	Gandhinagar (1-4)	30.87	36.30	(5.43)
3	Gandhinagar 5	8.77	13.46	
4	Wanakbori 1-6 TPS	66.82	68.39	(1.57)
5	Wanakbori 7 TPS	8.23	12.24	
6	Sikka TPS	13.79	16.49	(2.70)

7	KLTPS 1-3	7.87	8.75	(0.88)
8	Dhuvaran (Oil)	20.03	21.25	(1.22)
9	Dhuvaran (Gas 1)	4.97	5.57	
10	Dhuvaran (Gas 2)	8.19	11.32	
11	Utran (Gas)	6.30	8.78	
12	Ukai Hydro	0.47	0.81	(0.34)
13	Kadana Hydro	1.27	1.60	(0.33)
14	**Total**	**210.79**	**238.45**	**(12.76)**

3.3.11 Sharing of gains/losses & entitlement for FY 2008-09

Based on the annual performance review for each of the components in the previous section, the Commission has now computed the sharing of gains / losses for FY 2008-09. The gains/losses computed by the commission have been separately done for the controllable parameters and uncontrollable parameters.

Gains / losses arising out of controllable parameters are outlined in Table 36.

Table 36: Approved gain / loss due to controllable factors for FY 2008-09

(Rs. crores)

Sr. No.	Power Station	Gains / (Loss) due to Controllable Factors			Total Gains / (Losses) due to Controllable factors	Total Gains / (Losses) to be passed through
		O&M Expenses	Fuel Cost	Interest on Working Capital		
1	Ukai (1-5)	5.87	(64.92)	(0.29)	(59.34)	(19.78)
2	Gandhinagar (1-4)	(24.87)	8.37	(5.43)	(21.93)	(7.31)
3	Gandhinagar 5	0.00	0.00	0.00	0.00	0.00
4	Wanakbori 1-6 TPS	(1.83)	(65.25)	(1.57)	(68.65)	(22.88)
5	Wanakbori 7 TPS	0.00	0.00	0.00	0.00	0.00
6	Sikka TPS	(11.78)	(20.39)	(2.70)	(34.87)	(11.62)
7	KLTPS 1-3	(15.99)	(6.74)	(0.88)	(23.61)	(7.87)
8	Dhuvaran (Oil)	(2.01)	41.87	(1.22)	38.64	25.76
9	Dhuvaran (Gas 1)	0.00	0.00	0.00	0.00	0.00
10	Dhuvaran (Gas 2)	0.00	0.00	0.00	0.00	0.00
11	Utran (Gas)	0.00	0.00	0.00	0.00	0.00
12	Ukai Hydro	(5.46)		(0.34)	(5.80)	(1.93)
13	Kadana Hydro	(4.66)		(0.33)	(4.99)	(1.66)
	Total	**(60.73)**	**(107.06)**	**(12.76)**	**(180.55)**	**(47.30)**

The Commission has further analyzed the gains / losses arising on account of uncontrollable parameters. Gains / losses arising out of uncontrollable parameters are provided in Table 37.

Table 37: Approved gain/loss due to uncontrollable factors for FY 2008-09

(*Rs. crores)*

Sr. No.	Power Station	Gains / (Loss) due to Uncontrollable Factors				Total Gains / (Losses) due to Uncontrollable factors	Pass through
		Depreciation	Interest & Finance charges	Return on Equity	O&M Charges		
1	Ukai (1-5)	(12.92)	(0.39)	3.42	(15.70)	(25.59)	(25.59)
2	Gandhinagar (1-4)	7.81	9.99	10.64	(12.13)	16.31	16.31
3	Gandhinagar 5	0.00	-	0.00	0.00	0.00	0.00
4	Wanakbori 1-6 TPS	(16.41)	3.84	1.72	(16.75)	(27.60)	(27.60)
5	Wanakbori 7 TPS	0.00	-	0.00	0.00	0.00	0.00
6	Sikka TPS	(1.98)	1.71	0.13	(5.39)	(5.53)	(5.53)
7	KLTPS 1-3	(4.89)	7.09	2.54	(5.26)	(0.52)	(0.52)
8	Dhuvaran (Oil)	(5.58)	2.43	0.27	-	(2.88)	(2.88)
9	Dhuvaran (Gas 1)	0.00	-	0.00	0.00	0.00	0.00
10	Dhuvaran (Gas 2)	0.00	-	0.00	0.00	0.00	0.00
11	Utran (Gas)	0.00	-	0.00	0.00	0.00	0.00
12	Ukai Hydro	1.43	0.50	(0.01)	(3.14)	(1.22)	(1.22)
13	Kadana Hydro	3.31	0.50	4.56	-	8.37	8.37
	Total	**(29.23)**	**25.67**	**23.27**	**(58.37)**	**(38.66)**	**(38.66)**

In the computation of gains / losses to be shared due to controllable and uncontrollable parameters the Commission has considered the provisions of MYT regulations as indicated below:

- **Controllable parameters:**
  - The Commission has considered the provision of Regulation 11.1 for sharing of gain to the generating company. The said regulation provides that the generating company shall be entitled to retain one third (1/3) of aggregate gain.
  - The Commission has considered the provision of Regulation 11.2 for sharing of losses. The said regulation provides that one third of the amount of such loss ***may be*** passed on as additional charges in tariffs over such period as specified by the Commission. The balance amount of loss shall be absorbed by the generating company or licensee.
- **Uncontrollable parameters:** The Commission has considered the provisions as contained in regulations 10.1 of MYT regulations which provide that the approved aggregate gain or loss to the generating company on account of uncontrollable factors shall be passed through as an adjustment in the tariff of the generating company.

Based on the above sharing of gains/losses on account of controllable and uncontrollable parameter, the Commission has now computed the provisional gain / loss for the petitioner which is indicated in Table 38

Table 38: Provisionally approved plant wise gain / loss for FY 2008-09

(*Rs. crores)*

Sr. No.	Power Station	Total Gains/ (Losses) to be passed through on account of Controllable factor	Total Gains/ (Losses) to be passed through on account of Uncontrollable factor	Gain / (Losses) during FY 2008-09
1	Ukai (1-5)	(19.78)	(25.59)	(45.37)
2	Gandhinagar (1-4)	(7.31)	16.31	9.00
3	Gandhinagar 5			
4	Wanakbori 1-6 TPS	(22.88)	(27.60)	(50.48)
5	Wanakbori 7 TPS			
6	Sikka TPS	(11.62)	(5.53)	(17.15)
7	KLTPS 1-3	(7.87)	(0.52)	(8.39)
8	Dhuvaran (Oil)	25.76	(2.88)	22.88
9	Dhuvaran (Gas 1)			
10	Dhuvaran (Gas 2)			
11	Utran (Gas)			
12	Ukai Hydro	(1.93)	(1.22)	(3.15)
13	Kadana Hydro	(1.66)	8.37	6.71
14	**Total**	**(47.30)**	**(38.66)**	**(85.96)**

Based on the above computation the Commission observes that the petitioner is provisionally entitled to Rs. 85.96 crore as losses for FY 2008-09. The Commission is of the view that the amount of loss which has been provisionally evaluated shall be finally approved based on the submission of the audited accounts by the petitioner.

4 Annual Tariff Determination for FY 2009-10

4.1 Approach

This section deals with the annual tariff determination for FY 2009-10. Regulation 9.7 of the MYT Regulations provides that the Commission shall, subsequent to the annual performance review, revise the forecast for the remaining period of the control period. Accordingly, after undertaking the annual performance review for FY 2008-09, the Commission has considered the tariff determination for the FY 2009-10. In this regard the Commission has only reviewed the submission of the petitioner. The Commission is of the view that since a major portion of the FY 2009-10 has already elapsed there is no merit in undertaking tariff determination at this stage.

In regard to the review of the components for tariff determination, the Commission is of the view that controllable items should be considered as per the level approved under the MYT Framework, unless there are justifiable reasons to revise the same. Reasons for revision of the controllable parameters would be analyzed within the framework of Regulation 9.6 of the MYT Regulations.

In regard to the uncontrollable parameters the Commission is of the view that such parameters may be revised based on the analysis and verification of the submissions made by the petitioner and the provisional annual performance review undertaken for the FY 2008-09.

4.2 Operational parameters

The petitioner has estimated the station wise operating parameters for the FY 2009-10. The petitioner has suggested changes for each of the operating parameters depending on the actual performance recorded during the FY 2008-09. The Commission has examined the submissions made by the petitioner.

4.2.1 Availability

Petitioner's submission

The petitioner has revised the PAF for each of the generating stations for FY 2009-10. For revising the PAF the petitioner has considered the actual PAF recorded for the FY 2008-09 along with projected outage for the FY 2009-10. For PPA based stations the petitioner has considered PAF as per the provisions of the respective PPAs. The PAF proposed by the petitioner is indicated in Table 39.

Table 39: Plant availability factor for FY 2009-10 as estimated by petitioner *(in %)*

Sr. No.	Power Station	MYT Approved	GSECL Revised
1	Ukai (1-5)	74	70
2	Gandhinagar (1-4)	70	75
3	Gandhinagar 5	90	94
4	Wanakbori 1-6 TPS	85	85
5	Wanakbori 7 TPS	90	94
6	Sikka TPS	75	75
7	KLTPS 1-3	75	72
8	KLTPS 4	80	75
9	Dhuvaran (Oil)	80	50
10	Dhuvaran (Gas 1)	85	80
11	Dhuvaran (Gas 2)	88	85
12	Utran (Gas)	90	90
13	Utran Extension	87	80
14	Ukai Hydro	80	80
15	Kadana Hydro	80	80

The petitioner has submitted the following justifications in regard to the suggested changes in the PAF:

- For all the PPA governed stations of GSECL (viz. Gandhinagar V, Wanakbori 7, Dhuvaran gas 1 and Utran) which are relatively newer plants, the petitioner has proposed 80% or above availability factor which is as per the applicable PPA and regulations.
- Apart from Gandhinagar-V, Wanakbori-7, Dhuvaran Gas-1, Utran and other recent capacity addition; all the other stations are old and many of them have already exceeded the normative life. Considering that old stations are easily susceptible to the frequent outages the petitioner has revised the PAF of old stations.
- Dhuvaran oil plant has a problem of vacuum because of utilization of bore well water having high turbidity & hardness due to non-availability of Narmada Water, resulting in low load and lower PAF.
- Recovery of fixed charges for hydro stations should be allowed at 80% of machine availability, irrespective of the operation during the peak hours as has been approved vide tariff order dated 31st March 2007.

Commission's analysis

The Commission has reviewed the submission with regard to PAF made by the petitioner for the FY 2009-10. Commission is of the view that since a major portion of the current year has already elapsed there is no merit in revising the performance trajectory towards the end of the year. Further, the Commission is of the opinion that the performance parameters approved in the MYT Order for each control period already factors the probable variations for the respective years.

Based on the above observation and the controllable nature of PAF the Commission approves the PAF at the same level approved under the MYT Order. Any variation in actual PAF will be considered during the annual performance review of FY 2009-10. The approved level of PAF is indicated in Table 40.

Table 40: Approved plant availability factor for FY 2009-10 *(in %)*

Sr. No.	Power Station	Approved
1	Ukai (1-5)	74
2	Gandhinagar (1-4)	70
3	Gandhinagar 5	90
4	Wanakbori 1-6 TPS	85
5	Wanakbori 7 TPS	90
6	Sikka TPS	75
7	KLTPS 1-3	75
8	KLTPS 4	80
9	Dhuvaran (Oil)	80
10	Dhuvaran (Gas 1)	85
11	Dhuvaran (Gas 2)	88
12	Utran (Gas)	90
13	Utran Extension	87
14	Ukai Hydro	80
15	Kadana Hydro	80

4.2.2 Plant Load Factor (PLF)

Petitioner's submission

The revised PLF estimated by the petitioner for FY 2009-10 for each of the generating stations is indicated in Table 41.

Table 41: Revised plant load factor for FY 2009-10 estimated by petitioner *(in %)*

Sr. No.	Power Station	MYT Approved	GSECL Revised
1	Ukai (1-5)	74	70
2	Gandhinagar (1-4)	70	75
3	Gandhinagar 5	92	94
4	Wanakbori 1-6 TPS	85	85
5	Wanakbori 7 TPS	92	94
6	Sikka TPS	75	75
7	KLTPS 1-3	72	72
8	KLTPS 4	80	75

9	Dhuvaran (Oil)	77	50
10	Dhuvaran (Gas 1)	90	80
11	Dhuvaran (Gas 2)	90	85
12	Utran (Gas)	92	90
13	Utran Extension	58	80
14	Ukai Hydro	24	24
15	Kadana Hydro	9	9

With regards to the reduction in PLF the petitioner has submitted that PLF varies with plant availability and system demand. The revision in PLF for FY 2009-10 is on account of revised PAF which is based on the estimated outage schedule for FY 2009-10.

Commission's analysis

The Commission has reviewed the submission with regard to PLF made by the petitioner for the FY 2009-10. Commission is of the view that since a major portion of the current year has already elapsed there is no merit in revising the performance trajectory towards the end of the year. Further, the Commission is of the opinion that the performance parameters approved in the MYT Order already factor the probable variations for the respective years.

Based on the above observation and the controllable nature of PLF the Commission approves the PLF at the same level as approved under the MYT Order. Any variation in actual PLF will be considered during the annual performance review of FY 2009-10.

The approved level of PAF is indicated in Table 42.

Table 42: Approved plant load factor for FY 2009-10 *(in %)*

Sr. No.	Power Station	Approved
1	Ukai (1-5)	74
2	Gandhinagar (1-4)	70
3	Gandhinagar 5	92
4	Wanakbori 1-6 TPS	85
5	Wanakbori 7 TPS	92
6	Sikka TPS	75
7	KLTPS 1-3	72
8	KLTPS 4	80
9	Dhuvaran (Oil)	77
10	Dhuvaran (Gas 1)	90
11	Dhuvaran (Gas 2)	90
12	Utran (Gas)	92
13	Utran Extension	58
14	Ukai Hydro	24

Sr. No.	Power Station	Approved
15	Kadana Hydro	9

4.2.3 Auxiliary Consumption

Petitioner's submission

The petitioner has estimated the revised auxiliary consumption for FY 2009-10 which is indicated in Table 43.

Table 43: Revised auxiliary consumption for FY 2009-10 estimated by petitioner *(in %)*

Sr. No.	Power Station	MYT Approved	GSECL Revised
1	Ukai (1-5)	9.00	9.20
2	Gandhinagar (1-4)	11.12	10.00
3	Gandhinagar 5	9.00	9.00
4	Wanakbori 1-6 TPS	9.00	9.00
5	Wanakbori 7 TPS	9.00	9.00
6	Sikka TPS	10.70	11.00
7	KLTPS 1-3	12.25	12.50
8	KLTPS 4	12.25	12.50
9	Dhuvaran (Oil)	11.50	13.00
10	Dhuvaran (Gas 1)	3.00	3.00
11	Dhuvaran (Gas 2)	3.00	3.00
12	Utran (Gas)	4.00	4.00
13	Utran Extension	4.00	5.50
14	Ukai Hydro	0.70	0.70
15	Kadana Hydro	1.19	1.19

The petitioner has submitted the following reasons for revising the auxiliary consumption:

Ukai TPS:

- Due to R&M of the unit 1 & 2

Sikka TPS

- Load is required to be reduced during low tide period because of low vacuum.

KLTPS (1-3)

- Because of poor quality of lignite, it is very difficult to achieve full load, which increases the % auxiliary consumption

KLTPS 4 & Utaran Extension

- Stabilisation

Dhuvaran Oil

- For Dhuvaran oil plant, there is a problem of vacuum because of utilization of bore well water having high turbidity and hardness due to non-availability of Narmada Water, resulting in low load which increases the % Auxiliary Consumption

Commission's analysis

The Commission has taken note of the submission made by the petitioner. Since the Commission has already considered various factors including issues mentioned above at the time of issue of MYT order, revision in auxiliary consumption is not warranted. The Commission has therefore continued with the auxiliary consumption as approved in the MYT Order of 17th January 2009. The Commission is also of the opinion that since a major portion of the current year has already elapsed there is no merit in revising the auxiliary consumption at this stage. Further, the Commission shall consider the gain/loss on account of the actual performance during annual performance review as permitted under the MYT Regulations. The approved auxiliary consumption is indicated in Table 44

Table 44: Approved auxiliary consumption for FY 2009-10 *(in %)*

Sr. No.	Power Station	Approved for FY 2009-10
1	Ukai (1-5)	9.00
2	Gandhinagar (1-4)	11.12
3	Gandhinagar 5	9.00
4	Wanakbori 1-6 TPS	9.00
5	Wanakbori 7 TPS	9.00
6	Sikka TPS	10.70
7	KLTPS 1-3	12.25
8	KLTPS 4	12.25
9	Dhuvaran (Oil)	11.50
10	Dhuvaran (Gas 1)	3.00
11	Dhuvaran (Gas 2)	3.00
12	Utran (Gas)	4.00
13	Utran Extension	4.00
14	Ukai Hydro	0.70
15	Kadana Hydro	1.19

4.2.4 Station Heat Rate

Petitioner's submission

The petitioner has submitted the station heat rate for each of the stations which is indicated in Table 45. The petitioner has considered the station heat rate at the same level as approved in the MYT Order.

Table 45: Station heat rate for FY 2009-10 submitted by petitioner

Sr. No.	Power Station	MYT Approved (kcal/kWh)	GSECL (kcal/kWh)
1	Ukai (1-5)	2775	2775
2	Gandhinagar (1-4)	2855	2855
3	Gandhinagar 5	2460	2460
4	Wanakbori 1-6 TPS	2650	2650
5	Wanakbori 7 TPS	2460	2460
6	Sikka TPS	3100	3100
7	KLTPS 1-3	3300	3300
8	KLTPS 4	3000	3000
9	Dhuvaran (Oil)	3200	3200
10	Dhuvaran (Gas 1)	1950	1950
11	Dhuvaran (Gas 2)	1950	1950
12	Utran (Gas)	2150	2150
13	Utran Extension	1850	1850

Commission's analysis

The Commission has observed that the petitioner has considered the SHR at the same level as approved for FY 2009-10 in the MYT Order. The Commission has therefore continued with the station heat rate as approved in the MYT Order of 17th January 2009. Further, the Commission shall consider the gain/loss on account of the actual performance during annual performance review as provided under the MYT Regulations. The approved station heat rate for FY 2009-10 is provided in Table 46.

Table 46: Approved station heat rate for FY 2009-10

Sr. No.	Power Station	Approved for FY 2009-10 (kcal/kWh)
1	Ukai (1-5)	2775
2	Gandhinagar (1-4)	2855
3	Gandhinagar 5	2460
4	Wanakbori 1-6 TPS	2650
5	Wanakbori 7 TPS	2460
6	Sikka TPS	3100
7	KLTPS 1-3	3300
8	KLTPS 4	3000
9	Dhuvaran (Oil)	3200
10	Dhuvaran (Gas 1)	1950
11	Dhuvaran (Gas 2)	1950
12	Utran (Gas)	2150
13	Utran Extension	1850

4.2.5 Secondary Fuel Oil Consumption

Petitioner's submission

The petitioner has submitted the revised specific oil consumption for each of the stations for the FY 2009-10 which is provided in the Table 47.

Table 47: Estimated specific oil consumption for FY 2009-10

Sr. No.	Power Station	MYT Approved (ml/kWh)	GSECL Revised (ml/kWh)
1	Ukai (1-5)	2.00	3.00
2	Gandhinagar (1-4)	3.50	3.50
3	Gandhinagar 5	3.50	3.50
4	Wanakbori 1-6 TPS	1.00	2.00
5	Wanakbori 7 TPS	3.50	3.50
6	Sikka TPS	2.77	3.00
7	KLTPS 1-3	3.00	3.00
8	KLTPS 4	3.00	3.00

The petitioner has submitted that most of the power stations of GSECL are smaller in size for which specific oil consumption are generally high. The petitioner has also submitted the following reasons with regard to the variance in the specific consumption of secondary fuel oil:

Ukai 1-5:

- Partial loading and frequent start-up is expected because of the R&M activity.

Sikka TPS

- Partial loading and vacuum problem (because of low tide problem).

Commission's analysis

The Commission has observed that the petitioner has revised the secondary fuel oil consumption for Ukai 1-5, Wanakobri 1-6 and Sikka TPS compared to the specific oil consumption approved under the MYT Order. The Commission has also examined the reasons and justifications submitted by the petitioner. The Commission is of the opinion that all of the above reasons were considered while approving the specific consumption of secondary fuel level under the MYT Order.

Based on the above justification, the Commission is of the opinion that the secondary fuel oil should be considered at the same level as approved under the MYT Order and any variation should be considered along with the annual performance review for FY 2009-10.

Based on the above approach the Commission approves the secondary fuel oil for FY 2009-10 as indicated in Table 48.

Table 48: Approved secondary fuel oil consumption for FY 2009-10

Sr. No.	Power Station	Approved for FY 2009-10 (ml/kWh)
1	Ukai (1-5)	2.00
2	Gandhinagar (1-4)	3.50
3	Gandhinagar 5	3.50
4	Wanakbori 1-6 TPS	1.00
5	Wanakbori 7 TPS	3.50
6	Sikka TPS	2.77
7	KLTPS 1-3	3.00
8	KLTPS 4	3.00

4.2.6 Transit Losses

Petitioner's submission

The petitioner has submitted that it shall maintain the transit loss for the FY 2009-10 at the same level as approved in the MYT Order. The trajectory for transit loss submitted by the petitioner is indicated in Table 49.

Table 49: Transit loss for FY 2009-10 submitted by the petitioner *(in %)*

Sr. No.	Power Station	MYT Approved	GSECL Revised
1	Ukai (1-5)	1.20	1.20
2	Gandhinagar (1-4)	1.40	1.40
3	Gandhinagar 5	1.40	1.40
4	Wanakbori 1-6 TPS	1.50	1.50
5	Wanakbori 7 TPS	1.50	1.50
6	Sikka TPS	2.00	2.00

Commission's analysis

The Commission has examined the submission of the petitioner in regard to the transit losses and has observed that the petitioner has considered the level of transit loss for FY 2009-10 as approved under the MYT Order. The Commission therefore approves the submission of the petitioner which is indicated in Table 50.

Table 50: Approved Transit loss for FY 2009-10 *(in %)*

Sr. No.	Power Station	Approved for FY 2009-10
1	Ukai (1-5)	1.20
2	Gandhinagar (1-4)	1.40
3	Gandhinagar 5	1.40

4	Wanakbori 1-6 TPS	1.50
5	Wanakbori 7 TPS	1.50
6	Sikka TPS	2.00

4.2.7 Projected fuel parameters & fuel cost

Petitioner's Submission

The petitioner has projected fuel related parameters such as GCV of fuel, fuel mix and fuel cost for computation of variable cost for FY 2009-10. The petitioner has submitted that the projections are based on the price trends observed in the recent past, the fuel mix being used in power stations and GCV of fuel recently received.
The petitioner has further submitted that based on the revised projections for fuel parameters there is a change in the fuel cost and the revised fuel cost is higher than the fuel cost approved for FY 2009-10 under the MYT Order. The projected fuel cost submitted by the petitioner is indicated in Table 51.

Table 51: Revised fuel cost for FY 2009-10 submitted by the petitioner

Sr. No.	Power Station	MYT Approved (Rs in Crore))	GSECL (Rs in Crore)
1	Ukai (1-5)	754	781
2	Gandhinagar (1-4)	628	888
3	Gandhinagar 5	226	307
4	Wanakbori 1-6 TPS	1,473	1,559
5	Wanakbori 7 TPS	252	273
6	Sikka TPS	280	370
7	KLTPS 1-3	127	152
8	KLTPS 4	45	38
9	Dhuvaran (Oil)	493	625
10	Dhuvaran (Gas 1)	180	244
11	Dhuvaran (Gas 2)	190	199
12	Utran (Gas)	226	385
13	Utran Extension	340	345

Commission's Analysis

The Commission has examined the submissions made by the petitioner in regard to the various fuel related parameters. However, the Commission is of the opinion that the variance in fuel related parameters is available to the petitioner through the mechanism of 'Fuel Price Adjustment' and the cost is a 'pass through' component. Therefore, the Commission has not dealt with these projections in this order. The Commission holds the opinion that the fuel related parameters including its cost shall be dealt with at the time of annual performance review when the audited financial statements of the petitioner is available and the actual cost could accordingly be verified. The Commission further directs the petitioner that for the purpose of verification of fuel related parameters the petitioner should submit the fuel bills for each category of fuel along with the petition for annual performance review.

Performance parameters for generating stations - Scenario analysis based on recommendation of CEA

The Commission has stated in its MYT Order, *““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.”*

The Commission has subsequently initiated a CEA study for evaluating the performance parameters of the generating stations in Gujarat including those which are being operated by GSECL. In the MYT Order the Commission had also indicated, *“Pending the study, the station heat rates proposed by GSECL to all the units / stations are accepted. These values will be reviewed during truing up of 2008-09 based on the recommendations of the Consultant (CEA) and the trajectory of these parameters for the control period will be fixed accordingly.”*

In light of the above background the Commission has noted that the approved performance parameters for generating stations are provisional in nature and shall be subject to the final outcome of the CEA study.

The recommendations of the CEA study are now available and the Commission is reviewing the recommendations. While the Commission has not used the recommendations to approve any parameters for FY 2009-10, it has examined the effect of the recommended parameters for FY 2009-10 provided by the CEA report. Based on the preliminary computation, the Commission has observed that if the cost of generation as approved in MYT order for FY 2009-10 were to be computed using the parameters recommended by CEA the cost of generation would decrease by 4.5%.

4.2.8 Projected Fixed Cost for FY 2009-10

Petitioner’s Submission

The petitioner has revised the fixed cost approved for FY 2009-10 under the MYT order. In its submission the petitioner has submitted that it has bifurcated the total fixed cost for FY 2009-10 into the following components:

- Depreciation
- Advance Against Depreciation
- Interest & Financing Charges
- Return on Equity

- O&M Expenses
- Water Charges
- Interest on Working Capital
- Tax on Income

The petitioner has submitted that based on the revised projections the fixed charges for FY 2009-10 provisionally computed now is higher than the fixed charges approved under the MYT order.

The details of each of the above items have been dealt in the following sections.

4.2.8.1 Depreciation for FY 2009-10

Petitioner's Submission

The petitioner has submitted the revised estimation of depreciation for FY 2009-10. The petitioner has estimated that the depreciation for FY 2009-10 would be Rs. 441.70 crores.

The petitioner has submitted that the revised estimate is based on the provisional accounts for FY 2008-09. The addition to the asset base for FY 2007-08 has been considered based on the audited accounts and for FY 2008-09 is based on the provisional accounts. Addition to the asset base for FY 2009-10 has been considered based on the works which are likely to be capitalized during the FY 2009-10.

The petitioner has submitted that for PPA based stations the depreciation rates have been considered as per the respective PPAs. For non PPA based stations, the depreciation rates have been considered as per the revised depreciation rates issued by the CERC. For new stations where PPA has not been signed the depreciation rates have been considered according to the applicable norms.

The details of the submission made by the petitioner in regard to the amount of depreciation for each of the stations for FY 2009-10 are outlined in Table 52.

Table 52: Station wise depreciation for FY 2009-10 submitted by petitioner

(Rs. Crores)

Sr. No.	Power Station	MYT Approved	GSECL Estimation
1	Ukai (1-5)	37.49	44.99
2	Gandhinagar (1-4)	49.91	60.16
3	Gandhinagar 5	33.02	32.58
4	Wanakbori 1-6 TPS	43.82	68.43
5	Wanakbori 7 TPS	32.70	31.73
6	Sikka TPS	18.70	28.95
7	KLTPS 1-3	36.63	56.78
8	KLTPS 4	15.48	9.61
9	Dhuvaran (Oil)	9.16	12.03
10	Dhuvaran (Gas 1)	15.01	13.79

Sr. No.	Power Station	MYT Approved	GSECL Estimation
11	Dhuvaran (Gas 2)	20.76	22.13
12	Utran (Gas)	13.96	15.38
13	Utran Extension	41.52	23.46
14	Ukai Hydro	4.42	6.42
15	Kadana Hydro	10.99	15.26
	Total	**383.57**	**441.70**

Commission's Analysis

The Commission has examined the submission made by the petitioner. The Commission has observed that the depreciation for FY 2008-09 now submitted by GSECL is different compared to the amount approved under the MYT Order. This variance has been on account of the difference in the capital addition earlier projected for MYT Order and now considered based on the performance for FY 2008-09. The Commission has noted that change in the amount of depreciation for FY 2008-09 shall impact the amount of depreciation approved for FY 2009-10 under the MYT Order.

The Commission has analyzed that the amount of depreciation for FY 2009-10 now estimated by the petitioner is Rs. 58.13 crores higher than the amount approved under the MYT Order.

The Commission has observed that the petitioner has considered the applicable depreciation rates for PPA based stations, non PPA based station and the new stations.

The Commission has observed that the amount of depreciation for FY 2008-09 as per the provisional accounts has been higher. The Commission thereafter directed the petitioner to submit the actual information for the first 6 months of FY 2009-10 in regard to the addition of new assets. However, the petitioner has not been able to submit the information.

Based on the above observation, the Commission provisionally approves the revised depreciation for each of the stations. The amount and depreciation provisionally revised for FY 2008-09 is indicated in Table 53.

Table 53: Revised station wise depreciation for FY 2009-10

(*Rs. crores)*

Sr. No.	Power Station	MYT Approved	Now Approved
1	Ukai (1-5)	37.49	44.99
2	Gandhinagar (1-4)	49.91	60.16
3	Gandhinagar 5	33.02	32.58
4	Wanakbori 1-6 TPS	43.82	68.43
5	Wanakbori 7 TPS	32.70	31.73
6	Sikka TPS	18.70	28.95

Sr. No.	Power Station	MYT Approved	Now Approved
7	KLTPS 1-3	36.63	56.78
8	KLTPS 4	15.48	9.61
9	Dhuvaran (Oil)	9.16	12.03
10	Dhuvaran (Gas 1)	15.01	13.79
11	Dhuvaran (Gas 2)	20.76	22.13
12	Utran (Gas)	13.96	15.38
13	Utran Extension	41.52	23.46
14	Ukai Hydro	4.42	6.42
15	Kadana Hydro	10.99	15.26
	Total	**383.57**	**441.70**

4.2.8.2 Advance against depreciation

Petitioner's Submission

The petitioner has submitted that it is considering depreciation at the rates now revised by the CERC. Accordingly, it is not considering any AAD for the FY 2009-10. However, for indicative purposes the petitioner has submitted the amount of AAD which it would be entitled to if the old depreciation rates were considered. The submission of the petitioner is summarized in Table 54.

Table 54: Revised AAD for FY 2009-10 submitted by the petitioner

(*Rs. crores)*

Sr. No.	Power Station	MYT Approved	GSECL Estimation
1	KLTPS 4	-	24.94
2	Utran Extension	6.92	54.79
2	**Total**	**6.92**	**79.73**

Commission's Analysis

The Commission has examined the submission of the petitioner. The Commission has observed that the petitioner has submitted that the AAD should no longer be considered since it is considering the revised depreciation rates provided by the CERC. The Commission has observed that under the revised CERC guidelines, AAD is no longer permissible.

In light of the above the Commission approves the submission of the petitioner. The revised AAD approved by the Commission for the FY 2009-10 is summarized in Table 55.

Table 55: Approved advance against depreciation for FY 2009-10

(*Rs. crores)*

Sr. No.	Power Station	MYT Approved	Now Revised
1	KLTPS 4	-	0.00
2	Utran Extension	6.92	0.00
2	**Total**	**6.92**	**0.00**

4.2.8.3 Interest & Finance charges

Petitioner's Submission

The petitioner has submitted the revised interest & finance charges for the FY 2009-10. The petitioner has projected a lower interest & finance charge of Rs. 376.15 crore compared to Rs. 387.98 crores approved for FY 2009-10 under the MYT Order. The submission made by the petitioner is summarized in Table 56.

Table 56: Revised Interest & Finance charges for 2009-10 submitted by petitioner

(Rs. crores)

Sr. No.	Power Station	MYT Interest & Finance Charges	GSECL Projection
1	Ukai (1-5)	57.68	58.29
2	Gandhinagar (1-4)	63.90	60.72
3	Gandhinagar 5	-	-
4	Wanakbori 1-6 TPS	59.41	52.63
5	Wanakbori 7 TPS	0.38	0.67
6	Sikka TPS	20.57	20.13
7	KLTPS 1-3	44.33	37.69
8	KLTPS 4	23.47	27.38
9	Dhuvaran (Oil)	10.31	8.72
10	Dhuvaran (Gas 1)	8.86	12.73
11	Dhuvaran (Gas 2)	15.59	21.76
12	Utran (Gas)	9.05	9.56
13	Utran Extension	58.80	49.36
14	Ukai Hydro	4.48	4.87
15	Kadana Hydro	11.15	11.65
	Total	**387.98**	**376.15**

Commission's Analysis

The Commission has examined the submission made by the petitioner. The Commission has observed that the interest & finance charges for FY 2008-09 as per the provisional accounts are lower than the amount approved under the MYT Order. The Commission has further observed that the petitioner has now revised the amount of interest & finance charges downwards.

The Commission has analyzed the submissions made by the petitioner and has observed that for loan up to FY 2008-09 the petitioner has considered the weighted average rate of interest for the respective plants. For additional loans the petitioner has considered an interest rate of 10.50%. The Commission has observed that this rate is in line with the recent borrowings made by GSECL. The Commission has also observed that the petitioner has also considered the guarantee charges while projecting the total interest and finance charges for FY 2009-10.

Based on the above observation the Commission approves the revised interest & finance charges for FY 2009-10. The amount of interest and finance charges approved by the Commission for FY 2009-10 is indicated in Table 57.

Table 57: Revised interest & finance charges approved for FY 2009-10

(Rs. crores)

Sr. No.	Power Station	MYT Interest & Finance Charges	Now Approved
1	Ukai (1-5)	57.68	58.29
2	Gandhinagar (1-4)	63.90	60.72
3	Gandhinagar 5	-	-
4	Wanakbori 1-6 TPS	59.41	52.63
5	Wanakbori 7 TPS	0.38	0.67
6	Sikka TPS	20.57	20.13
7	KLTPS 1-3	44.33	37.69
8	KLTPS 4	23.47	27.38
9	Dhuvaran (Oil)	10.31	8.72
10	Dhuvaran (Gas 1)	8.86	12.73
11	Dhuvaran (Gas 2)	15.59	21.76
12	Utran (Gas)	9.05	9.56
13	Utran Extension	58.80	49.36
14	Ukai Hydro	4.48	4.87
15	Kadana Hydro	11.15	11.65
	Total	**387.98**	**376.15**

4.2.8.4 Return on Equity

Petitioner's Submission

The petitioner has revised the return on equity for FY 2009-10 downwards. Compared to the approved return on equity of Rs.400.04 crores under the MYT Order for FY 2009-10, the petitioner has submitted a revised amount of Rs. 351.28 crores. The details of the submissions made by the petitioner are summarized in Table 58.

Table 58 : Revised Return on Equity for FY 2009-10 submitted by petitioner

(Rs. crores)

Sr. No.	Power Station	MYT Approved	GSECL Estimation
1	Ukai (1-5)	28.16	21.31
2	Gandhinagar (1-4)	47.01	34.80
3	Gandhinagar 5	26.84	26.84
4	Wanakbori 1-6 TPS	64.02	51.93
5	Wanakbori 7 TPS	26.23	26.03
6	Sikka TPS	21.02	20.33

7	KLTPS 1-3	46.66	42.80
8	KLTPS 4	18.07	12.22
9	Dhuvaran (Oil)	7.15	6.91
10	Dhuvaran (Gas 1)	12.52	12.87
11	Dhuvaran (Gas 2)	15.46	15.92
12	Utran (Gas)	10.30	10.49
13	Utran Extension	36.33	32.97
14	Ukai Hydro	7.72	7.82
15	Kadana Hydro	32.55	28.05
	Total	**400.04**	**351.28**

Commission's Analysis

The Commission has examined the submission made by the petitioner. The Commission has observed that the petitioner has estimated a lower return on equity for FY 2009-10 compared to the amount approved under the MYT Order. In this regard the Commission has also observed that the return on equity computed for FY 2008-09 based on the provisional accounts are lower than the amount approved under the MYT Order.

The Commission has analyzed that the petitioner has considered the applicable rate of return on equity for PPA based stations as well as non PPA based stations. Further, the Commission has observed that the petitioner has projected a lower asset addition during the FY 2009-10. Also the equity portion has been considered at less than 30% as prescribed on a normative basis.

Based on the above observation, the Commission provisionally approves the revised return on equity as submitted by the petitioner. The amount of return on equity approved for FY 2009-10 for each of the station is summarized in Table 59.

Table 59: Revised return on equity approved for FY2009-10

(Rs. crores)

Sr. No.	Power Station	MYT Approved	Now Approved
1	Ukai (1-5)	28.16	21.31
2	Gandhinagar (1-4)	47.01	34.80
3	Gandhinagar 5	26.84	26.84
4	Wanakbori 1-6 TPS	64.02	51.93
5	Wanakbori 7 TPS	26.23	26.03
6	Sikka TPS	21.02	20.33
7	KLTPS 1-3	46.66	42.80
8	KLTPS 4	18.07	12.22
9	Dhuvaran (Oil)	7.15	6.91
10	Dhuvaran (Gas 1)	12.52	12.87
11	Dhuvaran (Gas 2)	15.46	15.92
12	Utran (Gas)	10.30	10.49

13	Utran Extension	36.33	32.97
14	Ukai Hydro	7.72	7.82
15	Kadana Hydro	32.55	28.05
	Total	**400.04**	**351.28**

4.2.8.5 Operations & Maintenance expense

Petitioner's Submission

The petitioner has submitted the revised estimates for O&M Charges for FY 2009-10. The petitioner has submitted the O&M Charges by claiming the amount towards water charges separately. The petitioner has submitted that the water charges have been increasing over the recent years and the amount approved under the MYT Order is insufficient to meet the increasing outgo on this account.

The detail of the petitioner's submission is indicated in Table 60.

Table 60: Revised O&M expenses for FY 2009-10 submitted by petitioner

(Rs. crores)

Sr. No.	Power Station	MYT Approved	GSECL Estimate O&M (Less Water Charges)	GSECL Estimate Water Charges
1	Ukai (1-5)	110.10	125.23	-
2	Gandhinagar (1-4)	85.49	71.70	50.67
3	Gandhinagar 5	20.33	21.07	10.17
4	Wanakbori 1-6 TPS	163.21	146.05	35.68
5	Wanakbori 7 TPS	20.11	23.63	5.10
6	Sikka TPS	31.09	32.86	6.27
7	KLTPS 1-3	27.85	32.04	0.56
8	KLTPS 4	9.71	9.66	0.09
9	Dhuvaran (Oil)	28.50	28.67	3.14
10	Dhuvaran (Gas 1)	7.61	7.13	1.57
11	Dhuvaran (Gas 2)	10.93	7.54	1.57
12	Utran (Gas)	9.95	14.98	1.86
13	Utran Extension	21.04	24.57	0.21
14	Ukai Hydro	7.74	27.17	-
15	Kadana Hydro	12.11	18.86	-
	Total	**565.77**	**591.16**	**116.90**

Commission's Analysis

The Commission has observed that the petitioner has revised the O&M expenses upwards. Further, the Commission has also observed that the petitioner has prayed that the water charges should be considered separately.

In regard to the water charges, the Commission directed the petitioner to provide historical trend for water consumption. Accordingly, based on the submission of the petitioner, the Commission has observed that while in FY 2007-08 the amount of water charges was Rs. 64.09 crores (based on audited accounts), in FY 2008-09, it increased to Rs. 96.91 crores (based on provisional accounts), indicating an year on year increase of 51.20%.

In regard to O&M expense of FY 2009-10 other than water charges, the Commission has observed that the revised estimates are higher than the amount approved under the MYT Order.

The Commission is of the view that since a major portion of the FY 2009-10 has already elapsed there is no merit in revising the O&M Expense at this stage. The Commission shall consider the actual O&M Expense including water charges at the time of the annual performance review for FY 2009-10. Based on this approach the Commission approves the O&M expense for FY 2009-10 at the same level as approved under the MYT Order which is indicated in Table 63.

Table 61: Approved O&M expenses for FY 2009-10

(Rs. crores)

Sr. No.	Power Station	MYT Approved	Now Approved
1	Ukai (1-5)	110.10	110.10
2	Gandhinagar (1-4)	85.49	85.49
3	Gandhinagar 5	20.33	20.33
4	Wanakbori 1-6 TPS	163.21	163.21
5	Wanakbori 7 TPS	20.11	20.11
6	Sikka TPS	31.09	31.09
7	KLTPS 1-3	27.85	27.85
8	KLTPS 4	9.71	9.71
9	Dhuvaran (Oil)	28.50	28.50
10	Dhuvaran (Gas 1)	7.61	7.61
11	Dhuvaran (Gas 2)	10.93	10.93
12	Utran (Gas)	9.95	9.95
13	Utran Extension	21.04	21.04
14	Ukai Hydro	7.74	7.74
15	Kadana Hydro	12.11	12.11
	Total	**565.77**	**565.77**

4.2.8.6 Interest on working capital

Petitioner's Submission

The petitioner has submitted a revised interest on working capital of Rs. 262.64 crores compared to Rs. 229.55 crores approved under the MYT Order for FY 2009-10. The details for each of the stations are summarized in Table 62.

Table 62: Revised Interest on working capital for FY 2009-10 submitted by petitioner

(*Rs. crores)*

Sr. No.	Power Station	MYT Approved	GSECL Estimate
1	Ukai (1-5)	34.67	34.59
2	Gandhinagar (1-4)	31.59	38.39
3	Gandhinagar 5	8.82	14.17
4	Wanakbori 1-6 TPS	67.84	64.42
5	Wanakbori 7 TPS	8.24	12.50
6	Sikka TPS	13.93	16.14
7	KLTPS 1-3	7.96	9.63
8	KLTPS 4	2.83	3.36
9	Dhuvaran (Oil)	19.41	23.34
10	Dhuvaran (Gas 1)	4.95	7.65
11	Dhuvaran (Gas 2)	8.17	8.38
12	Utran (Gas)	6.29	11.52
13	Utaran Extension	13.10	15.55
14	Ukai Hydro	0.48	1.23
15	Kadana Hydro	1.27	1.77
	Total	**229.55**	**262.64**

Commission's Analysis

The Commission has examined the submission of the petitioner and has found that the computation of interest on working capital for old plants has been done on the basis of normative working capital and the interest rate has been considered at the approved level of 10.25%. For new stations that are Dhuvaran Gas 2, KLTPS 4 and Utran Extension the petitioner has consider an interest rate of 12.25%. The Commission has examined from the submission of the petitioner that this interest rate is as per the applicable SBI PLR on the respective date of commissioning of these stations. Further, the Commission has also analyzed that and the interest on working capital for FY 2008-09 as per provisional accounts is higher than the amount approved under the MYT Order.

Accordingly, the Commission approves the revised interest on working capital for FY 2009-10 as submitted by the petitioner. The revised interest on working capital for FY 2009-10 is summarized in Table 63

Table 63: Revised interest on working capital approved for FY 2009-10

(*Rs. crores)*

Sr. No.	Power Station	MYT Approved	Now Approved
1	Ukai (1-5)	34.67	34.59
2	Gandhinagar (1-4)	31.59	38.39
3	Gandhinagar 5	8.82	14.17
4	Wanakbori 1-6 TPS	67.84	64.42
5	Wanakbori 7 TPS	8.24	12.50

6	Sikka TPS	13.93	16.14
7	KLTPS 1-3	7.96	9.63
8	KLTPS 4	2.83	3.36
9	Dhuvaran (Oil)	19.41	23.34
10	Dhuvaran (Gas 1)	4.95	7.65
11	Dhuvaran (Gas 2)	8.17	8.38
12	Utran (Gas)	6.29	11.52
13	Utaran Extension	13.10	15.55
14	Ukai Hydro	0.48	1.23
15	Kadana Hydro	1.27	1.77
	Total	**229.55**	**262.64**

4.2.8.7 Insurance Charges

Petitioner's Submission

The petitioner has estimated the insurance charges for the PPA based stations for FY 2009-10. While estimating the insurance charges the petitioner has considered the insurance charges paid during the previous year. The insurance charges estimated for FY 2009-10 is indicated in Table 64.

Table 64: Insurance Charges for FY 2009-10 submitted by the petitioner

(Rs. crores)

Sr. No.	Power Station	MYT Approved	GSECL Estimate
1	Ukai (1-5)	-	-
2	Gandhinagar (1-4)	-	-
3	Gandhinagar 5	2.39	2.39
4	Wanakbori 1-6 TPS	-	-
5	Wanakbori 7 TPS	2.30	2.30
6	Sikka TPS	-	-
7	KLTPS 1-3	-	-
8	KLTPS 4	-	-
9	Dhuvaran (Oil)	-	-
10	Dhuvaran (Gas 1)	1.70	1.70
11	Dhuvaran (Gas 2)	-	-
12	Utran (Gas)	2.00	2.00
13	Utaran Extension	-	-
14	Ukai Hydro	-	-
15	Kadana Hydro	-	-
	Total	**8.39**	**8.39**

Commission's Analysis

The Commission has observed that the petitioner has considered the insurance charges at the same level as approved under the MYT Order. The Commission accordingly, approves the submission of the petitioner. The amount of insurance charges approved for FY 2009-10 is indicated in Table 65.

Table 65: Approved Insurance Charges for FY 2009-10

(Rs. crores)

Sr. No.	Power Station	MYT Approved	Now Approved
1	Ukai (1-5)	-	-
2	Gandhinagar (1-4)	-	-
3	Gandhinagar 5	2.39	2.39
4	Wanakbori 1-6 TPS	-	-
5	Wanakbori 7 TPS	2.30	2.30
6	Sikka TPS	-	-
7	KLTPS 1-3	-	-
8	KLTPS 4	-	-
9	Dhuvaran (Oil)	-	-
10	Dhuvaran (Gas 1)	1.70	1.70
11	Dhuvaran (Gas 2)	-	-
12	Utran (Gas)	2.00	2.00
13	Utaran Extension	-	-
14	Ukai Hydro	-	-
15	Kadana Hydro	-	-
	Total	**8.39**	**8.39**

4.2.8.8 SLDC Fees & Charges

Petitioner's Submission

The petitioner has estimated SLDC charges and SLDC fees for FY 2009-10 which is summarized below:

- SLDC Charges: Rs. 534.21 / MW / Month
- SLDC Fees: Rs.327.90 / MW / Half Year

The petitioner has prayed that the same may be approved.

Commission's Analysis

The Commission has analyzed the submission of the petitioner. The Commission has also observed that SLDC has filed its petition for SLDC Charges and SLDC fees for FY 2009-10. Based on the analysis of the Commission following amount is payable:

- SLDC Charges: Rs. 540 / MW / Month
- SLDC Fees: Rs.275 / MW / Half Year

4.2.8.9 Income Tax

Petitioner's Submission

The petitioner has estimated income tax for FY 2009-10 at the MAT rate of 11.33%. The petitioner has submitted that since the Return on Equity has been revised downwards, the income tax should also be revised accordingly. In this regard the petitioner has estimated an income tax amount of Rs. 39.80 crore against the approved amount of 45.32 crore.

Commission's Analysis

The Commission has analyzed the submission and is of the view that since the amount of return on equity has been revised the amount of income tax should also be revised. The Commission has observed that the petitioner has project a lower income tax considering downward revision of return on equity. The Commission accordingly, provisionally approves an amount of Rs. 39.80 crores towards income tax for FY 2009-10. The amount of income tax now approved by the Commission is summarized in Table 66.

Table 66: Approved Income Tax for FY 2009-10

(in Rs. Crore)

Sr. No.	Power Station	MYT Approved	Now Approved
1	Return on Equity	400.02	351.28
2	Tax Rate	11.33%	11.33%
3	Gandhinagar 5	45.32	39.80

4.2.9 Projected Fixed Cost for FY 2009-10

The revised charges submitted by the petitioner is summarized in Table 67

Table 67: Revised fixed charges for FY 2009-10 submitted by the petitioner

(Rs. crores)

Sr. No.	Power Station	Depreciation	Interest & Finance Charges	Return on Equity	Interest on Working Capital	O&M Expenses	Water Charges	Insurance Charges	MAT	SLDC Fees & Charges	Total Fixed Cost
1	Ukai (1-5)	44.99	58.29	21.31	35.32	125.23	-	-	2.41	0.60	**288.16**
2	Gandhinagar (1-4)	60.16	60.72	34.80	38.24	71.70	50.67	-	3.94	0.47	**320.70**
3	Gandhinagar 5	32.58	-	26.84	14.17	21.07	10.17	2.39	3.04	0.15	**110.41**
4	Wanakbori 1-6	68.43	52.63	51.93	65.87	146.05	35.68	-	5.88	0.89	**427.35**
5	Wanakbori 7 TPS	31.73	0.67	26.03	12.50	23.63	5.10	2.30	2.95	0.15	**105.05**
6	Sikka TPS	28.95	20.13	20.33	16.50	32.86	6.27	-	2.30	0.17	**127.51**

7	KLTPS 1-3	56.78	37.69	42.80	9.51	32.04	0.56	-	4.85	0.15	**184.38**
8	KLTPS 4	9.61	27.38	12.22	3.36	9.66	0.09	-	1.38	0.05	**63.77**
9	Dhuvaran (Oil)	12.03	8.72	6.91	21.47	28.67	3.14	-	0.78	0.16	**81.87**
10	Dhuvaran (Gas 1)	13.79	12.73	12.87	7.65	7.13	1.57	1.70	1.46	0.08	**58.98**
11	Dhuvaran (Gas 2)	22.13	21.76	15.92	8.38	7.54	1.57	-	1.80	0.08	**79.18**
12	Utran (Gas)	15.38	9.56	10.49	11.52	14.98	1.86	2.00	1.19	0.10	**67.08**
13	Utran Extension	23.46	49.36	32.97	15.55	24.57	0.21	-	3.74	0.26	**150.13**
14	Ukai Hydro	6.42	4.87	7.82	1.18	27.17	-	-	0.89	0.22	**48.56**
15	Kadana Hydro	15.26	11.65	28.05	1.41	18.86	-	-	3.18	0.17	**78.57**
16	**Total**	**441.70**	**376.15**	**351.28**	**262.64**	**591.16**	**116.90**	**8.39**	**39.80**	**3.69**	**2,191.72**

Commission's Analysis

The Commission has examined the submission of the petitioner. It has found that compared to the approved fixed cost of Rs.1982.22 Crore, the petitioner has now submitted a revised fixed cost of Rs.2191.72 crores indicating a proposed increase of Rs.209.50 Crores. The increase in the fixed charges is largely attributed to the Depreciation and O&M Expenses. The Commission has observed that the petitioner has segregated water charges from the O&M Expense and claimed it separately.

The Commission is of the view that the fixed charges have been approved under the MYT Order after considering probable scenarios. However, in view of the revision in the components which are related to capital expenditure like depreciation etc. the Commission has computed the revised amount of fixed charges.

The fixed charges now computed by the Commission is indicated in Table 68.

Table 68: Approved fixed charges for FY 2009-10

(Rs. crores)

Sr. No.	Power Station	Depreciation	Interest & Finance Charges	Return on Equity	Interest on Working Capital	O&M Expenses	Income Tax	SLDC Charges	Insurance Charges	Total Fixed Cost
1	Ukai (1-5)	44.99	58.29	21.31	34.59	110.1	2.41	0.6	-	272.29
2	Gandhinagar (1-4)	60.16	60.72	34.8	38.39	85.49	3.94	0.46	-	283.96
3	Gandhinagar 5	32.58	-	26.84	14.17	20.33	3.04	0.15	2.39	99.5
4	Wanakbori 1-6	68.43	52.63	51.93	64.42	163.21	5.88	0.89	-	407.39
5	Wanakbori 7 TPS	31.73	0.67	26.03	12.5	20.11	2.95	0.15	2.3	96.44
6	Sikka TPS	28.95	20.13	20.33	16.14	31.09	2.3	0.17	-	119.11
7	KLTPS 1-3	56.78	37.69	42.8	9.63	27.85	4.85	0.15	-	179.75
8	KLTPS 4	9.61	27.38	12.22	3.36	9.71	1.38	0.05	-	63.71
9	Dhuvaran (Oil)	12.03	8.72	6.91	23.34	28.5	0.78	0.15	-	80.43
10	Dhuvaran (Gas 1)	13.79	12.73	12.87	7.65	7.61	1.46	0.07	1.7	57.88
11	Dhuvaran (Gas 2)	22.13	21.76	15.92	8.38	10.93	1.8	0.08	-	81
12	Utran (Gas)	15.38	9.56	10.49	11.52	9.95	1.19	0.09	2	60.18
13	Utran Extension	23.46	49.36	32.97	15.55	21.04	3.74	0.26	-	146.38
14	Ukai Hydro	6.42	4.87	7.82	1.23	7.74	0.89	0.21	-	29.18
15	Kadana Hydro	15.26	11.65	28.05	1.77	12.11	3.18	0.17	-	72.19
16	**Total**	**441.7**	**376.15**	**351.28**	**262.64**	**565.77**	**39.8**	**3.67**	**8.39**	**2,049.39**

4.2.10 Approved Energy Charges for FY 2009-10

Petitioner's Submission

The petitioner has submitted a revised energy charge for FY 2009-10 which is based on the revised operating parameters and fuel cost estimated by the petitioner for FY 2009-10. The revised energy charge for FY 2009-10 submitted by the petitioner is indicated in Table 69.

Table 69: Revised energy charges for FY 2009-10 submitted by the petitioner

Sr. No.	Power Station	MYT Approved (Rs/kWh)	GSECL (Rs/kWh)
1	Ukai (1-5)	1.50	1.65
2	Gandhinagar (1-4)	1.75	2.27
3	Gandhinagar 5	1.47	1.95
4	Wanakbori 1-6 TPS	1.73	1.83
5	Wanakbori 7 TPS	1.64	1.73
6	Sikka TPS	1.99	2.63
7	KLTPS 1-3	1.07	1.28
8	KLTPS 4	0.98	1.17
9	Dhuvaran (Oil)	3.76	7.46
10	Dhuvaran (Gas 1)	2.21	3.37
11	Dhuvaran (Gas 2)	2.21	2.45
12	Utran (Gas)	2.16	3.77
13	Utran Extension	1.86	2.40

Commission's Analysis

The Commission has observed that the petitioner has revised the energy charges based on the revision in the operating parameters and the revision of the fuel related parameters. However, the Commission has not considered any revision in the fuel related parameters as well as the operating parameters for FY 2009-10. The Commission is of the view that these parameters shall be considered at the same level as approved under the MYT Order. Further, the petitioner has also considered the amount of gains / losses based on annual performance review of FY 2008-09 to be passed on to the FY 2009-10.

In regard to fuel related parameters, the Commission observes that the petitioner is not adversely impacted in any manner since the variance in fuel cost is recovered by the petitioner through the Fuel Price Adjustment mechanism.

In regard to the fixed charges for FY 2009-10, the Commission has considered revision for certain components of the fixed charges and has provisionally approved the same.

In regard to the gains/losses of FY 2008-09, the Commission is of the view that the gains/losses computed by the Commission is provisional in nature since the audited accounts of the petitioner are not available. The Commission shall pass the gains/losses to the petitioner in its next Order once the audited accounts are submitted.

Accordingly, since no variation has been considered in the fuel cost the energy charges are being approved at the same level as approved under the MYT Order.

Accordingly, the energy charges as approved for FY 2009-10 are indicated in Table 70.

Table 70: Approved energy charges for FY 2009-10

Sr. No.	Power Station	Approved for FY 2009-10 (Rs/kWh)
1	Ukai (1-5)	1.50
2	Gandhinagar (1-4)	1.75
3	Gandhinagar 5	1.47
4	Wanakbori 1-6 TPS	1.73
5	Wanakbori 7 TPS	1.64
6	Sikka TPS	1.99
7	KLTPS 1-3	1.07
8	KLTPS 4	0.98
9	Dhuvaran (Oil)	3.76
10	Dhuvaran (Gas 1)	2.21
11	Dhuvaran (Gas 2)	2.21
12	Utran (Gas)	2.16
13	Utran Extension	1.86

5 Compliance of Directives

5.1 Compliance of directives issued by the Commission

The Commission in its MYT Order dated 17th January 2009, had issued various directives. GSECL has now submitted a report on compliances of the Directives issued by the Commission. The Comments of the Commission on the submission of the petitioner is given below:

Directive No. 1- Renovation and Modernization (R&M) of Thermal plants:

The status of implementation of R&M may be reported quarterly. R&M works shall be taken up on priority to improve the performance of the generating units.

COMPLIANCE TO THE DIRECTIVE NO. 1:

The unit wise status of ongoing R&M works are as under:

STATUS AND ACTION PLAN

(A) Major R&M works (Plant-wise) : Status and Action Plan of R & M of various units:

Name of Unit	Schedule as planned
Ukai Unit-1&2 (2x 120 MW)	Placement of LOI to BHEL – 10.01.2005
	Placement of order to BHEL – 16.07.2005
	Zero date – 29.03.2005
	Material supply **:** Unit – 2 – 91 %
	The shutdown of Unit 1 was taken on 06.09.2006. Unit synchronized on 24.05.2008, which is yet to stabilize and yet to achieve 120 MW.
	Shut-down of Unit-2 taken on 12.08.08. Work is under progress.
WTPS-1,2,3 (2x 210 MW)	RLA, CA, LE STUDY of Units Wanakbori Units 1,2 3 of 210 MW are not to be carried out as Competent Authority has decided to go for need base R&M only. Hence, RLA study and R&M expenditures are deleted.

Name of Unit	Schedule as planned
UKAI TPS-Unit - 3,4,5 (2x 200 MW, 1x 210 MW)	RLA, CA, LE STUDY of units Ukai Units 3,4 & 5 of 200/210 MW are not to be carried out as Competent Authority has decided to go for need base R&M only. Hence, RLA study and R&M expenditures are deleted.

ACTION PLAN FOR UKAI TPS AND WANAKBORI TPS:

Ukai Unit # 1: It is not achieving 120 MW and work is under progress.

Ukai Unit # 2: It is undergoing R&M work and the same is planned to take on bar in August, 2009.

As Ukai Units 3, 4 & 5 and Wanakbori Units 1,2 & 3 had completed 20 years of their useful life, CEA had identified these units for R&M and LEP under document "Mission 2012, Power for all" during 11th plan period. Accordingly planning for comprehensive RLA/LE study and R&M and LE works is done and anticipated expenditure for the same is projected in the petition. Even after vigorous follow up with BHEL, OEM, comprehensive RLA/LE study could not be carried out as on date. Now GSECL has decided to go for need base R&M instead of R&M and LEP during 11th plan period.

Present Status and Schedule Programme for R&M / LE works of Gandhinagar TPS Unit No.1 & 2 for Major R&M.

LOI for major R&M is issued to M/s BHEL on 12.10.06. Design Engg. Of Main Plant under Progress.

As discussed with CEA some of the "Balance of Plant "packages to be finalized separately, for which Tender documents are under preparation.

The total estimated cost for the said project would be as under:

R&M/LE of Main Plant equipments by BHEL:	Rs. 361.00 Crores.
R&M/LE of BOP (Approximate) :	Rs. 60.00 Crores.
TOTAL:	Rs. 421.00 Crores.

The works of Main Plant and BOP is scheduled simultaneously in the ensuing shutdown of the Unit.

Zero date of the contract is fixed as 02.11.06 with completion schedule of 24 months and 31 months from zero date for Unit No.1 and Unit No. 2 respectively.

Accordingly the tentative shutdown to carry out above works was as under:

(a) Shutdown of Unit No.1: April-08 to the end of Oct-08.

(b) Shutdown of Unit No.2: Nov-08 to the end of May -09.

ACTION PLAN FOR GANDHINAGAR UNITS # 1&2:

As Ukai Unit- 1 took very long period for the R&M and bringing back the unit in service, it was earlier decided to revise the schedule on review of completion of R&M of Ukai Unit-1 with satisfactory performance thereof and review of exact supply of the material for the respective Units.

At present Ukai Unit No.1 is running with about 90-100 MW load and now competent authority has decided to review the matter again and a meeting with BHEL was held on 12.05.09. The status of design/engineering approval, material supply etc. was discussed and BHEL has confirmed to supply all required material of Unit No.1 by Nov.-09. Accordingly it is decided to go for R&M/LE for Unit No.1 from Sept-09 keeping in mind about the stability of Ukai Unit No.1 and re-commissioning of Unit No.2 of Ukai.

At present 80 % design and engineering for GTPS 1& 2 is completed. BHEL has supplied about 48 % of required material for Unit No1 and about 33 % of required material for Unit No.2. During the meeting held on 12.05.09, BHEL has confirmed to supply all required material of Unit No.1 by Nov.-09.

Commission's Comment: *The program for R&M is noted. The status of implementation may be reported quarterly. R&M Works shall be taken up on priority to improve the performance of the generating units. Further, the petitioner should report on the measures taken up for life extension of these plants as indicated by CEA.*

Directive 2-Energy Audit:

The report on the Energy Audit results may be submitted to the Hon'ble Commission. Energy Audit on other units may also be taken up.

COMPLIANCE TO THE DIRECTIVE NO. 2:

GSECL has already submitted the Energy Audit Report vide this Office Letter No. GSECL/GERC CellI/E.Audit Reports/451 Dtd. 02.04.09 along with the Benefits thereof as under:

DETAILS OF ENERGY SAVING MEASURES IMPLEMENTED IN 10 NOS. OF UNITS IN BRIEF:

Sr. No.	STATION & UNIT No.	Savings in Item	Expected Saving in KWH/ annum	Expected Saving in Rs./ annum
1	Wanakbori TPS Unit # 1	-	2000501	4001002
2	Wanakbori TPS Unit # 3	337 T Coal	2836406	6230152
3	Wanakbori TPS Unit # 5	467 T Coal	468672	2021944
4	KLTPS Unit # 1	-	2181058	4362116
5	KLTPS Unit # 3	-	2368080	4736160
6	Gandhinagar TPS Unit # 3	1153 T Coal	4858884	11447268
7	Gandhinagar TPS Unit # 5	6686 T Coal	1705416	13439832
8	Ukai TPS Unit # 3	330 T Coal	5001897	10432794
9	Ukai TPS Unit # 5	4057 T Coal	1172651	8309402
10	Dhuvaran CCPP - I	-	958548	1917097

STATUS & ACTION PLAN FOR ENERGY AUDIT: FY 08-09:

STATUS OF ENERGY AUDIT: FY 2008-09:

Sr. No.	Name of TPS	Unit No.	Electrical Audit	Thermal Audit	Insulation Survey	Draft Report	Final Report
1	Gandhinagar TPS	4	Completed	Completed	Completed	Received	Pending
2	Wanakbori TPS	6	Completed	Completed	Completed	Received	Pending
3	Wanakbori TPS	7	Completed	Completed	Completed	Received	Pending
4	Dhuvaran CCPP	2	Completed	Completed	Completed	Received	Pending
5	KLTPS	2	Pending. Field measurement work will start from 15-05-09.				

Note: After receipt of the Final Reports, the same will be submitted to the Hon'ble Commission.

ACTION PLAN FOR ENERGY AUDIT: FY 2009-10

GSECL has already taken up the Energy Audit of 8 Units to be carried out during FY 2009-10 as under:

Sr. No.	Name of TPS	Unit No.	Actions to be taken
1	Ukai TPS	1	Order placed for these units. Energy Audit for all these units will be carried out during FY 2009-10.
2	Ukai TPS	2	
3	Ukai TPS	4	
4	Gandhinagar TPS	1	
5	Gandhinagar TPS	2	
6	Wanakbori TPS	2	
7	Wanakbori TPS	4	
8	Utran GBPS	1	

Commission's Comment: *The Commission has taken note of the submissions made by the petitioner. Results for energy audit for other stations should also be submitted.*

Directive 4- Quality of Coal:

GSECL shall make all possible efforts to obtain adequate and better quality mine coal and adequate quantity of washed coal.

COMPLIANCE TO THE DIRECTIVE NO. 4:

GSECL has executed Fuel Supply Agreements with the Coal Companies – M/s. South Eastern Coalfields Ltd. (SECL) and M/s. Western Coalfields Ltd. (WCL).

The Annual Contracted Quantities (ACQ's) of 16.44 MTPA and 0.93 MTPA have been allocated by SECL and WCL. The ACQ's have been decided by MoC/ CIL. However, GSECL has demanded enhancement in the ACQ's of @ 1.5 MTPA.

GSECL is pursuing the matter with MoC/ CIL/ CEA for enhancement in the ACQ's.

GSECL has started using washed coal at Sikka TPS after execution of the FSA.

GSECL could increase the washed coal quantity upto @ 9 lakh Mt per month and achieved almost 100% replacement of Mainline Coal by Washed coal.

Against the total Indigenous Coal requirements of @ 14-15 lakh Mt per month of GSECL TPSs, GSECL is getting @ 9 lakh Mt per month of Washed coal and major quantity of the balance coal requirement from the better quality – Korea rewa coal from SECL and WCL coal.

Commission's Comment: *The Commission has taken note of the submissions made by the petitioner. The Commission further reiterates that the petitioner should make all possible efforts to obtain adequate and better quality mine coal and adequate quantity of washed coal.*

Directive 5-Performance of Stations:

Action shall be taken to improve the performance by better maintenance and taking up R&M of units.

COMPLIANCE TO THE DIRECTIVE NO. 5:

Action Plan of the R&M is as discussed under compliance to directive no. 1.

Commission's Comment: *Petitioner should take appropriate steps to improve the performance of the stations by taking up adequate R&M of Units.*

Directive 6-Transit Loss of Coal:

GSECL shall reduce the transit loss to normative level.

COMPLIANCE TO THE DIRECTIVE NO. 6:

GSECL has tried to bring down the Transit Loss within the approved level.

Commission's Comment: Commission has observed that the petitioner has submitted the actual transit loss in line with the approved transit loss level. Petitioner should in future submit computation of actual transit loss along with the petition.

Directive 7-Power Purchase Agreement between GSECL and GUVNL :

The conclusion of PPA between GUVNL and GSECL shall be expedited and reported to the Hon'ble Commission.

COMPLIANCE TO THE DIRECTIVE NO. 7:

Primary Draft PPA for various new projects as well as Stations transferred from erstwhile GEB have been prepared and finalization thereof is under process. The PPA for UGBPS-II is already submitted before the Hon'ble Commission by GUVNL

Commission's Comment: *The conclusion of the PPA between the GUVNL and GSECL shall be expedited and duly reported to the Commission.*

NEW DIRECTIVE

GSECL is directed to submit all financial figures in its future ARR and APR petitions in units of rupees crores.

COMMISSION'S ORDER

The Commission provisionally approves loss of Rs. 85.96 crore for FY 2008-09 based on the annual performance review. Further, the Commission approves the components of fixed charges and energy charges for FY 2009-10 as outlined below:

Sr. No.	Power Station	Annual Fixed Charges for FY 2009-10	Variable Charges FY 2009-10 (Rs/kWh)
1	Ukai (1-5)	272.29	1.50
2	Gandhinagar (1-4)	283.96	1.75
3	Gandhinagar 5	99.5	1.47
4	Wanakbori 1-6 TPS	407.39	1.73
5	Wanakbori 7 TPS	96.44	1.64
6	Sikka TPS	119.11	1.99
7	KLTPS 1-3	179.75	1.07
8	KLTPS 4	63.71	0.98
9	Dhuvaran (Oil)	80.43	3.76
10	Dhuvaran (Gas 1)	57.88	2.21
11	Dhuvaran (Gas 2)	81	2.21
12	Utran (Gas)	60.18	2.16
13	Utran Extension	146.38	1.86
14	Ukai Hydro	29.18	-
15	Kadana Hydro	72.19	-
16	**Total**	**2,049.39**	-

The order shall come into force with effect from 1st January 2010.

Sd/-

DR. P K MISHRA
Chairman

Sd/-

SHRI PRAVINBHAI PATEL
Member

Date: 14th December 2009

Ahmedabad

Annexure 1.1 – List of Objectors

List of Organizations and Individuals who filed objections/suggestions

1	N M Sadguru Water & Development Foundation
2	Shri Rameshbhai J. Fuletra
3	Shri Pankajkumar B. Patel
4	Mahuva Chamber of Commerce & Industry
5	Smt. Chetnaben M. Patel
6	Consumer Education and Research Society
7	Gondal Chamber of Commerce & Industry
8	Shri Surendrabhai B. Mehta
9	Bhatia International Limited
10	Bhavnagar District Chamber of Industries
11	Bhartiya Kisan Sangh
12	Akhil Bhartiya Grahak Panchayat – Rajkot
13	Sarpanch, Dhunvav Gram Panchyat
14	Tax Payers' Users' Consumers Association – Jamnagar
15	Dediyasan Industrial Estate Association
16	Shri Sunil Oza
17	Dy. Chief Electrical Engineer, Western Railway
18	Utility Users' Welfare Association
19	Federation of Gujarat Industries
20	Shri Vipul Hirabhai Raiyani
21	Gujarat Krushi Vij Grahak Suraksha Sangh

Annexure 1.2 – List of participants in Public Hearing

List of participants in Public Hearing

1.	N M Sadguru Water & Development Foundation
2.	Shri Surendrabhai B. Mehta
3.	Akhil Bhartiya Grahak Panchayat – Rajkot
4.	Sarpanch, Dhunvav Gram Panchyat
5.	Dy. Chief Electrical Engineer, Western Railway
6.	Gondal Chamber of Commerce & Industry
7.	Jagega Gujarat Sangharsh Samiti
8.	Shri Amarsinh Chavda
9.	Consumer Education and Research Society
10.	Bhatia International Limited
11.	Utility Users' Welfare Association
12.	Federation of Gujarat Industries
13.	Dediyasan Industrial Estate Association
14.	Shri Vipulbhai Hirabhai Raiyani
15.	Shri Hasmukh Shah
16.	Gujarat Krushi Vij Grahak Suraksha Sangh