GUJARAT ELECTRICITY REGULATORY COMMISSION

Tariff Order

Truing up for FY 2014-15,

Approval of Provisional ARR for FY 2016-17 and

Determination of Tariff for FY 2016-17

For

Torrent Power Limited - Generation Ahmedabad

Case No. 1551 of 2015

31st March, 2016

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GANDHINAGAR

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ABBREVIATIONS

A&G	Administration and General Expenses
ARR	Aggregate Revenue Requirement
CAPEX	Capital Expenditure
CERC	Central Electricity Regulatory Commission
Control Period	FY 2011-12 to FY 2016-17
DGVCL	Dakshin Gujarat Vij Company Limited
DISCOM	Distribution Company
EA	Electricity Act, 2003
EHV	Extra High Voltage
FPPPA	Fuel and Power Purchase Price Adjustment
FY	Financial Year
GEB	Gujarat Electricity Board
GERC	Gujarat Electricity Regulatory Commission
GETCO	Gujarat Energy Transmission Corporation Limited
GFA	Gross Fixed Assets
GoG	Government of Gujarat
GSECL	Gujarat State Electricity Corporation Limited
GUVNL	Gujarat Urja Vikas Nigam Limited
HT	High Tension
JGY	Jyoti Gram Yojna
kV	Kilo Volt
kVA	Kilo Volt Ampere
kVAh	Kilo Volt Ampere Hour
kWh	Kilo Watt Hour
LT	Low Tension Power
MGVCL	Madhya Gujarat Vij Company Limited
MUs	Million Units (Million kWh)
MW	Mega Watt
MYT	Multi-Year Tariff
O&M	Operations and Maintenance
p.a.	Per Annum
PF	Power Factor
PGCIL	Power Grid Corporation of India Limited
PGVCL	Paschim Gujarat Vij Company Limited
PPA	Power Purchase Agreement
R&M	Repairs and Maintenance
RLDC	Regional Load Despatch Centre
SBI	State Bank of India
SLDC	State Load Despatch Centre
UGVCL	Uttar Gujarat Vij Company Limited
WRLDC	Western Regional Load Despatch Centre

Before the Gujarat Electricity Regulatory Commission at Gandhinagar

Case No. 1551 of 2015

Date of the Order: 31/03/2016

CORAM

Shri K. M. Shringarpure, Member

Shri P.J. Thakkar, Member

ORDER

1. Background and Brief History

1.1 Background

Torrent Power Limited (hereinafter referred to as TPL or the petitioner) has filed petition under Section 62 of the Electricity Act, 2003, read in conjunction with Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2011, for the True-up of FY 2014-15, and for determination of tariff for its generation business at Ahmedabad for the FY 2016-17 on 23rd December, 2015.

The Commission admitted the Petition on 28th December, 2015.

1.2 Torrent Power Limited (TPL)

Torrent Power Limited (TPL) is a company incorporated under the Companies Act, 1956 is carrying on the business of Generation and Distribution of Electricity in the cities of Ahmedabad, Gandhinagar and Surat. The present petition has been filed by TPL-Generation (Ahmedabad) for its generation business in Ahmedabad.

TPL had assumed the business, consequent upon the amalgamation of Torrent Power Ahmedabad Limited (TPAL), Torrent Power Surat Limited (TPSL) and Torrent Power Generation Limited (TPGL) with Torrent Power Limited. Besides, TPL is also engaged in other businesses, which do not come under the regulatory purview of the Commission.

TPL has existing generation facilities, with a total installed capacity of 422 MW, at Ahmedabad and has a Combined Cycle Power Plant (CCPP) of 1147.5 MW (SUGEN) capacity near Surat out of which a share of 835 MW. The generation facilities at Ahmedabad consist of a 422 MW coal based Thermal Power Plant at Sabarmati and a 100 MW gas based CCPP at Vatva which has since been retired from 31.03.2014.

1.3 Commission's Order for the Second Control Period

TPL filed its petition under the Multi-Year Tariff Framework for the control period from FY 2011-12 to FY 2015-16 on 24th February, 2011, in accordance with Gujarat Electricity Regulatory Commission (Multi-Year Tariff Framework) Regulations, 2007, notified by the Commission.

The Commission issued the new MYT Regulations, notified as GERC (Multi-Year Tariff) Regulations, 2011, on March 22, 2011.

Regulation 1.4 (a) of GERC (Multi-Year Tariff) Regulations, 2011 reads as under:

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

The Commission, in exercise of the powers vested in it under Sections 61, 62 and 64 of the Electricity Act, 2003, and all other powers enabling it in this behalf, and after taking into consideration the submissions made by TPL, the objections by various stakeholders, response of TPL, issues raised during the public hearing and all other relevant material, issued the Multi-Year Tariff order on 6th September, 2011 for the control period from FY 2011-12 to FY 2015-16, based on the GERC (MYT) Regulations, 2011. The Commission issued the following Orders on the dates shown against each:

- For truing up for FY 2010-11 and Tariff determination for FY 2012-13 on 2nd June, 2012.
- For truing up for FY 2011-12 and Tariff determination for FY 2013-14 on 16th April, 2013.

1.4 Commission's Orders for Mid-term Review of Business plan for TPL-G (APP)

TPL filed its Petition for Mid-term Review of Business Plan and revision of ARR for balance years for FY 2014-15 and FY 2015-16 of the control period in terms of Regulation 16.2(i) of GERC (MYT) Regulations, 2011.

The Commission in exercise of the powers vested in it under Sections 61, 62 and 64 of the Electricity Act, 2003 and all other powers enabling it in this behalf and after taking into consideration the submission made by TPL, the objections by various stakeholders, response of TPL, issues raised during public hearing and all other relevant material, approved the revised ARR for FY 2014-15 and FY 2015-16 in the Mid-term Review of Business Plan for TPL on 29th April, 2014.

The Commission issued the order for truing up for FY 2012-13 and determination of Tariff for FY 2014-15 on 29th April, 2014.

The Commission issued the order for truing up for FY 2013-14 and determination of Tariff for FY 2015-16 on 31st March, 2015.

1.5 Background for the present petition

The Commission in its order dated 2nd December, 2015, in the Suo Motu Petition No. 1534/2015 decided that the approved ARR of FY 2015-16 of the licensees / generating companies concerned be considered as provisional ARR of the licensees / generating companies for FY 2016-17.

The Commission also decided that the licensees / generating companies shall file the ARR for FY 2016-17 based on the MYT Regulations for FY 2016-17 to FY

2020-21 and the true-up for the same shall also be governed as per the new MYT Regulations. It is also decided that the licensees / generating companies shall file the petition for determination of ARR and tariff for FY 2016-17 and true-up for FY 2014-15 within 3 weeks from the date of issuance of this order for Commission's consideration and decision.

TPL has accordingly filed the Petition for True-Up for FY 2014-15 and Approval of provisional Tariff for FY 2016-17 with the Commission for approval.

1.6 Admission of the Current Petition and Public Hearing Process

TPL has submitted the current Petition for "truing up" of FY 2014-15 and determination of tariff for FY 2016-17 on 23rd December, 2015. The Commission admitted the Petition (Case No. 1551/2015) on 28th December, 2015.

In accordance with Section 64 of the Electricity Act, 2003, the Commission directed TPL to publish its application in an abridged form to ensure public participation. The Public Notice, inviting objections / suggestions from its stakeholders on the petition filed by it, was published in the following newspapers on 29th December, 2015.

Sl. No.	Name of Newspaper	Language	Date of Publication
1	The Indian Express (Ahmedabad Edition)	English	29/12/2015
2	Sandesh (Ahmedabad & Surat Editions)	Gujarati	29/12/2015
3	Gujarat Samachar (Ahd. & Surat Editions)	Gujarati	29/12/2015
4	Divya Bhaskar (Ahd. & Surat Editions)	Gujarati	29/12/2015
5	NavGujarat Samay (Ahmedabad Edition)	Gujarati	29/12/2015
6	Gujarat Mitra (Surat Edition)	Gujarati	29/12/2015
7	Gujarat Guardian (Surat Edition)	Gujarati	29/12/2015

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

The interested parties / stakeholders were asked to file their objections / suggestions on the petition on or before 28th January, 2016.

The Commission received objections / suggestions from 5 consumers / consumer organizations. The Commission examined the objections / suggestions received and scheduled a public hearing on 17th February, 2016 at the Commission's Office at Gandhinagar and subsequently a communication was sent to the objectors to take part in the public hearing process for presenting their views in person before the Commission. The public hearing was conducted in Commission's Office in Gandhinagar on the above date.

The names of the stakeholders who filed their objections and the objectors who participated in the public hearing for presenting their objections are given below:

Sl. No.	Name of Stakeholders	Participated in the Public Hearing
1.	Akhil Gujarat Grahak Sewa Kendra	No
2.	Consumer Education and Research Society (CERS)	Yes
3.	Laghu Udyog Bharati - Gujarat	Yes
4.	Bharatiya Samyawadi Paksh (Markswadi)	Yes
5.	Utility Users' Welfare Association (UUWA)	Yes

Apart from above, Shri R. G. Tillan was also present during the hearing and made his representation.

A note on the main issues raised by the objectors in the submissions with respect to the petition along with the response of TPL-G (APP) and the Commission's views on the response are given in Chapter 3.

1.7 Contents of this Order

The order is divided into six chapters as under:

1. The first chapter provides a brief background regarding the Petitioner, the petition on hand and details of the public hearing process and approach adopted in this Order.
2. The second chapter outlines the summary of TPL's Petition.
3. The third chapter deals with the public hearing process, including the objections raised by various stakeholders, TPL's response and Commission's views on the response.
4. The fourth chapter focuses on the details of truing up for FY 2014-15.
5. The fifth chapter deals with the determination of tariff for FY 2016-17.
6. The sixth chapter deals with compliance of directives and issue of fresh directives.

1.8 Approach of this Order

The GERC (MYT) Regulations, 2011, provide for truing up of the previous year, and determination of tariff for the ensuing year. The Commission has approved the

ARR for the five years of the second control period from FY 2011-12 to FY 2015-16, in the MYT order dated 6th September, 2011.

In the Mid-term Review of Business Plan, the Commission has revised the approved revised ARR for FY 2014-15 and FY 2015-16.

TPL has approached the Commission with the present petition for “truing up” for the FY 2014-15 and determination of Tariff for FY 2016-17, under GERC (MYT) Regulations, 2011.

The Commission has undertaken truing up for the FY 2014-15, including computation of gains and losses for the FY 2014-15, based on the submissions of the petitioner and the annual accounts made available by the petitioner.

While truing up for 2014-15, the Commission has been primarily guided by the following principles:

1. Controllable parameters have been considered at the level approved under the MYT Order, unless the Commission considers that there are valid reasons for revision of the same.

2. Un-controllable parameters have been revised, based on the actual performance observed.

The truing up for the FY 2014-15 has been considered, based on the GERC (MYT) Regulations, 2011. For the determination of the ARR for FY 2016-17, the Commission has considered the ARR approved for FY 2015-16, as approved in the Mid-term Review order dated 29th April, 2014, as provisional ARR for FY 2016-17, in line with the Commission’s Order dated 2nd December 2015 in the Suo Motu Petition No. 1534/2015.

2. A Summary of TPL's Petition

2.1 Actuals for FY 2014-15 submitted by TPL-G (APP)

Torrent Power Limited (TPL) submitted the current petition seeking approval of True-up for ARR of FY 2014-15. The details of expenses under various heads of ARR are given in Table below:

Table 2.1: Actuals Claimed by TPL for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	MTR Order	Actuals FY 2014-15
1	Fuel Cost (Variable Cost)	931.07	939.82
2	O&M Expense	134.19	161.43
3	Water Charges	8.37	10.84
4	Depreciation	45.80	47.78
5	Interest Cost on Long-Term Capital Loans	-	26.00
6	Interest on Working Capital	20.32	21.13
7	Return on Equity	46.16	60.39
8	Income Tax	18.51	2.85
9	Incentive	-	16.19
10	Less: Non-Tariff Income	25.25	58.02
11	**Annual Revenue Requirement**	**1179.17**	**1228.40**

2.2 ARR for FY 2016-17

TPL, in its petition, has also furnished the Provisional ARR for the FY 2016-17 which is same as that approved for FY 2015-16 in the MTR order dated 29th April, 2014.

Table 2.2: Provisional ARR of TPL-G (APP) for FY 2016-17

(Rs. Crore)

Sl. No.	ARR	Provisional ARR for FY 2016-17
1	Variable Cost	801.31
2	O&M Expense	141.86
3	Water Charges	8.37
4	Depreciation	44.70
5	Interest on Loan	-
6	Interest on Working Capital	17.96
7	Return on Equity	44.95
8	Income Tax	18.51
9	Less: Non-Tariff Income	25.25
10	**Total**	**1052.41**

2.3 TPL's request to the Commission:

a) Admit the petition for truing up of FY 2014-15 and determination of tariff for FY 2016-17.

b) Approve the trued-up ARR of FY 2014-15.

c) Approve the sharing of gains/losses as proposed for FY 2014-15.

d) Approve the ARR for FY 2016-17

e) Approve the cumulative Gap / (Surplus).

f) Cumulative Gap / (Surplus).

g) Allow recovery of the costs as per the Judgments of the Hon'ble Tribunal on the Appeals filed by the Petitioner.

h) Allow additions / alterations / changes / modifications to the application at a future date.

i) Permit the Petitioner to file all necessary pleading and documents in the proceeding and documents from time to time for effective consideration of the proceeding.

j) Allow any other relief, order or direction which the Commission deems fit to be issued.

k) Condone any inadvertent omissions / errors / rounding off difference / shortcomings.

3. Brief outline of Objections raised, Response from TPL-G and the Commission's View

3.0 Stakeholders' suggestions / objections, Petitioner's Response and Commission's Observation

In response to the public notice inviting objections / suggestions from stakeholders on the Petition filed by TPL-G for Truing up of FY 2014-15 and determination of Tariff for FY 2016-17 under GERC (MYT) Regulations, 2011, a number of Consumers / organisations filed their objections / suggestions in writing. Some of these objectors participated in the public hearing also. The Commission has addressed the objections / suggestions by the consumer / consumers organisations, the response from the Petitioner and the view of the Commission as given below:

3.1 Tariff Increase

Objection

M/s. Akhil Gujarat Seva Kendra has stated that;

i. the Petitioner has skilfully asked for tariff increase which is illegal; and
ii. TPL is making profit and still asking for increase of Tariff and burdening the consumers.

Response of TPL

The Petitioner has stated that;

i. The allegations of the objector are refuted.
   The Petitioner has filed the Petition in line with the provisions of the Act and National Tariff Policy and GERC Regulations. The Petitioner has not proposed any change in Tariff rates for existing Tariff categories but proposed to recover the cumulative gap through "Regulatory Charge" effective from 1st April 2016 to ensure a minimum reduction of at least 5 paise / unit to consumers of Ahmedabad licensed area. The proposal of the Petitioner is in the interest of the stakeholders.
ii. The objector is referring to Annual Reports of TPL. It is to be stated that existing petition and profits shown in Annual Reports are different under different statutes. The Annual Report is prepared as per provisions of

Companies Act 1956 and Accounting Standards duly audited by Statutory Auditors of the Company. Whereas the tariff petition is prepared under various regulations specified by the Commission from time to time. It is not correct to compare financials as per Annual Report of the Company and the data submitted in the petition.

Commission's Observation

The recovery of cumulative gap through "Regulatory Charge" has been examined and appropriate decision has been taken.

3.2 True-up for FY 2014-15

Objection

M/s. Consumer Education and Research Society has stated as under:

a. Recovery of Revenue Gap

The Petitioner has demanded recovery of Rs. 13.12 Crore even though he has operated the plants efficiently and achieved PLF of 80.69% in FY 2014-15. The Commission is requested to direct the Petitioner for recovery of this gap through economical and efficient means.

b. Performance of Sabarmati Plant

Due to poor PLF of 'C' and 'D' stations, the Petitioner purchased costly power from other sources.

c. Coal Transit Loss

The Petitioner has incurred coal transit loss at 1.60% as against approved value of 0.90%. The demand of the Petitioner to calculate transit loss as uncontrollable parameter should be rejected. The higher transit loss of 0.7% should be transferred to the account of Petitioner.

d. High Fuel Cost for FY 2014-15

The proposed increase of Rs. 780 Crore in case of indigenous coal is objectionable and the Commission shall direct the Petitioner to furnish details of grades of coal used at C, D, E & F stations at Sabarmati.

e. Revenue gap for 2016-17

The Commission is requested not to grant any relief to the Petitioner as revenue gap for FY 2016-17 is very small and can be recovered through efficient and economical measures. The cumulative gap for FY 2016-17 is

Rs. 14.66 Crore which is meagre and economical measures should be taken to wipe off of the gap.

Response of TPL

On the above mentioned issues, the Petitioner has submitted as under;

a. The Petitioner has made all efforts to ensure reduction in overall cost by optimizing its resources and incurring expenditure on need basis. The gap of Rs. 13.12 Crore has resulted after all efforts have been made by the Petitioner. The Commission may approve the gap of FY 2014-15 subject to prudent check to ensure speedy recovery as any delay would result in incurring carrying cost which is a burden on consumers.

b. The lower PLF of ‘C’ station is on account of lower off-take; which is beyond the control of the Petitioner. Further, due to lower PLF, it is a well-established fact that it reflects higher auxiliary consumption percentage and higher SHR. Regarding ‘D’ station, it is submitted that the variation is on account of extension of planned maintenance schedule due to onsite teething problems faced during Boiler 2nd pass renovation work.

c. The Petitioner is making continuous efforts to contain the Transit Losses. However, it is pertinent to note that there are certain uncontrollable factors such as moisture loss, windage, and slippage losses taking place during long distance of transportation which results in higher transit loss. Further reduction is beyond its control. The Petitioner has considered the transit loss as controllable parameter in its calculation as per MYT Regulations and requested the Commission to consider the transit loss as uncontrollable due to the factors beyond its control.

d. The Petitioner has signed the fuel supply agreement (FSA) with SECL (a subsidiary of CIL) which is a standard agreement across the sector. The cost of domestic coal increased during FY 2014-15 due to increase in prices of Coal of SECL and increase in Railway Freight.

   Regarding details of coal used at various stations including grade, quality and calorific value of coal, the Petitioner has furnished the information on the grade, quality and calorific value of coal in the petition in line with the provisions of the GERC (MYT) Regulations, 2011.

e. Regarding cumulative gap for FY 2016-17, the petitioner has submitted that the ARR of FY 2016-17 has been submitted on provisional basis as per the approved ARR of FY 2015-16. Upon the notification of the GERC (MYT) Regulations, 2011 for the new control period, the Petitioner shall submit the revised estimated ARR of FY 2016-17 and requested the Commission to approve the provisional ARR of FY 2016-17.

Commission's view

The cost of generation of TPL-G stations is approved after carrying out prudence check and detailed scrutiny of performance. Transit loss of coal is limited to the percentage approved by the Commission.

3.3 Depreciated valuation of assets

Objection

M/s. Laghu Udyog Bharati, Gujarat has stated that in the absence of depreciated valuation record of Torrent G till the Commission approvers this amount by a separate entry this amount in the annual report shall not be considered. The amount received shall be actually be construed as revenue and value of assets and depreciation amount shall be recalculated. There are no details of the money received either in ARR or in Annual Accounts FY 2014-15.

The reduction in assets as per balance sheet is Rs. 56.62 Crore. It is yet to be confirmed that this amount is commensurate to sale value of retired 100 MW combined gas cycle plant. As such it is proposed to cover this amount along with Rs. 22.99 Crore and interest for one year is to be treated as surplus amount.

Response of TPL

The Objector has referred to the trued up gap of FY 2014-15 of Rs. 13.12 Crore and compared the same with the figures reflected in the Statement of Accounts. In this regard, the Petitioner submitted that the Statement of Accounts cannot be directly compared with the present petition since the petition and the Statement of Accounts are prepared under the different Statutes.

Further the Objector has referred to the loss figures mentioned as exceptional item in the P&L Statement and submitted that the same has not been included in the ARR and that this item should not be considered separately till the same is approved by the Commission. The Objector has proposed to consider net reduction in assets along with this loss figure as surplus amount. The Petitioner has submitted that it has not requested the Commission to approve this loss to pass on in ARR. The Petitioner would like to further submit that Vatva CCPP has been retired and accordingly, no effect of the same has been factored in the ARR calculation. The present petition is prepared in accordance the prevailing regulatory framework. The figures mentioned in the Statement of Accounts are certified by the Statutory Auditors of the Company.

Commission's Observation

The response of TPL–G (APP) explains the issue raised by the objector. The ARR filed by the Petitioner has been scrutinized and the generation costs of each station are approved by the Commission.

3.4 Maintainability of the Petition

Objection

M/s. Utility Users' Welfare Association has stated that

i. TPL-Generation is a separate legal entity and TPL-D is a separate legal entity and is Distribution Licensee for Ahmedabad / Gandhinagar and Surat area. As per Electricity Act, 2003 the generation is delicensed and TPL–G (APP) is free to sell the generated electricity to anyone.
ii. The petition format is not suitable as it does not reflect the real facts and figures as the Petitioner is involved in other multiple businesses at multiple locations

Response of TPL

The Petitioner has stated that;

i. TPL-G (APP) is the separate division of same legal entity. The present petition for truing up of FY 2014-15 is filed in line with the provisions of GERC (MYT) Regulations, 2011.
ii. All the requisite information for the present proceedings are already provided in the Petition as required under the GERC (MYT) Regulations, 2011. The

allegations are therefore emphatically denied. The Petitioner further submits that it prepares and maintains the accounts as per the Accounting Standards specified by the Institute of Chartered Accountants of India in accordance with the Companies Act. The segregated Accounting Statements for the FY 2014-15, duly certified by the Statutory Auditors of the Company, have also been made available along with the Petition.

Commission's Observation

Though the generation business is de-licensed, the generation tariff is determined by the Commission as the power is supplied to a distribution licensee. As mentioned earlier, the tariff is approved by the Commission after detailed scrutiny.

3.5 Agreement to procure power

Objection

M/s. Utility Users' Welfare Association has stated that there is no Power Purchase agreement between TPL-G (APP) and TPL-D and hence;

i. there is no obligation in the part of TPL-D to procure power from its own generating division which is in fact a separate legal entity as per provision of Electricity Act, 2003

ii. As there is no PPA of TPL –G with TPL –D the Tariff under cost plus basis under Section 62 of Electricity Act, 2003 of generating station of TPL is totally illegal and is in violation of various provisions of Section 61 and 86 of Electricity Act, 2003, Clause 5.1 of NTP, NEC and MYT Regulations and its principle and preamble of Electricity Act, 2003

iii. The generating cost of TPL-G (APP) is Rs. 4.11/kWh i.e. Rs. 1228.40 Crore for 2982.91 MUs generation. Whereas TPL-D is procuring the power from GUVNL @ the rate of Rs. 3.69/kWh that too on short term basis. Not only that TPL-D has procured power from power exchange @ Rs. 4.23/Unit. SUGEN power cost is Rs. 9.34/Unit which is the highest cost of power procurement in India by a Distribution Licensee.

Response of TPL

On the above objections, TPL-G (APP) has submitted that;

i. The TPL-G (APP) is the embedded generation and is the approved source of power purchase as per the Commission's MTR order. The increase in the power purchase cost from TPL-G (APP) is mainly on account of uncontrollable factors such as fuel and transportation cost. Further the GERC (MYT) Regulations, 2011 specify power purchase cost as legitimate item of expenditure and hence it should be approved as per actuals.

ii. & iii Section 63 of Electricity Act, 2003 gives an option to procure electricity at the Tariff determined in accordance with the competitive bidding guidelines issued by the Central Government. In such a case, the appropriate Commission shall adopt the Tariff instead of determining the Tariff in accordance with Section 62 on cost plus basis. It is clear that procurement of power is permissible either at Tariff determined under Section 62 or Tariff determined under Section 63.

Commission's Observation

TPL-G (APP) is an approved source for power purchase and the tariff for generation is approved by the Commission after detailed scrutiny as stated earlier.

3.6 ARR Gap

M/s. Utility Users' Welfare Association has stated that the first MYT control Period from 2008-09 to 2010-11 has already been over and second MYT control period is about to be over and the benefits of MYT are not achieved as TPL has asked for the huge gap in spite of the fact that the uncontrollable cost like fuel and power purchase cost has already been recovered through the mechanism of FPPPA.

Response of TPL

The Petitioner submits that it has filed the petition in accordance with the provisions of Section 62 and 64 of the Electricity Act, 2003 read with GERC (MYT) Regulations, 2011. The Petitioner refuted the allegations made by the Objector and further submitted that the erstwhile FPPPA formula allowed the partial recovery of cost incurred and did not allow the recovery of total incremental cost. Therefore, such unrecovered cost is reflected as gap during truing up exercise.

Commission's Observation

TPL-G (APP) has filed the Petition as per the GERC (MYT) Regulations, 2011 and the costs are approved by the Commission after detailed scrutiny as stated earlier.

3.7 Equity

M/s. Utility Users' Welfare Association has made several observations regarding equity of the Petitioner.

Response of TPL

The Petitioner strongly refutes all the allegations and submit that it has calculated return on the equity as per the provisions of the GERC (MYT) Regulations, 2011. The question of considering the service line contributions received from the consumers as part of its equity does not arise in respect of the generation business.

Commission's Observation

The equity and the return on equity are approved as per GERC (MYT) Regulations, 2011.

3.8 Accounting Statements

M/s Utility Users' Welfare Association has stated that the Accounting Statement submitted by TPL is not the Accounting Statement as mandated in the GERC (MYT) Regulations, 2011. TPL has failed to segregate its accounts as per Regulations and by not doing it within year as mandated in the Regulation, TPL has availed undue, illegal, undesired, unjust enrichment by hiding the financial data and has made the physical investment in other franchisee areas of Bhiwandi, Agra and Kanpur and booked in the licensed area of Ahmedabad / Gandhinagar and Surat.

Response of TPL

The Petitioner denies and refutes the allegations made by the Objector. The Petitioner submits that it prepares and maintains the accounts as per the Accounting Standards specified by the Institute of Chartered Accountants of India in accordance with the provisions of the Companies Act. The Petitioner has furnished the separate Accounting Statements, duly certified by the Statutory Auditors of the Company for FY 2014-15 in accordance with the statutory provisions.

The Petitioner also clarified that separate accounts are being maintained for Regulated business and the same have been furnished duly verified by the Statutory Auditors of the Company.

Commission's Observation

The Commission regulates only the regulated business of TPL and not other businesses and accordingly the Commission has examined the petition filed for the regulated business.

3.9 Transfer Cost for FY 2016-17

M/s. Utility Users' Welfare Association has stated that it is proposed by TPL-G (APP) that Rs. 1052.41 Crore is the total transfer cost for 2016-17. However, no projection of net as well as gross generation in MUs is given.

The Commission is requested to direct TPL-G to provide the details of each of the components of variable as well as fixed cost for enabling the stakeholders to give their comments.

Response of TPL

The Petitioner has considered the ARR of FY 2015-16 approved in Order dated 29th April, 2014 in Case No. 1368 of 2013, as provisional ARR for FY 2016-17 as per the Commission's order dated 2nd December, 2015 in Petition No. 1534/2015. The details of approved ARR are available in the above referred order of the Commission. The Petitioner has considered the approved ARR for FY 2016-17 in line with the GERC (MYT) Regulations, 2011.

Commission's Observation

The Petition for FY 2016-17 is based on the approved ARR for FY 2015-16 as per the Commission's Order in Suo Motu Petition as explained by the Petitioner.

3.10 Power Purchase

M/s. Utility Users' Welfare Association has stated that the APTEL has held that the State Commission should direct the Distribution Licensee to procure power through competitive bidding process in cases where the rates under negotiated agreements are high.

The Commission is requested to examine this issue and direct TPL–D to procure power by competitive bidding process under Section 63 of Electricity Act, 2003 instead of procuring power from its own group on cost plus basis which is not in the interests of the consumers.

Response of TPL

Section 63 of the Electricity Act, 2003 gives an option to procure electricity at tariff determined in accordance with the competitive bidding guidelines issued by the Central Government. In that case, the Appropriate Commission shall adopt the tariff instead of determining the tariff in accordance with Section 62 on cost plus basis. It is clear that procurement of power is permissible either at tariff determined under Section 62 or tariff determined under Section 63.

Commission's Observation

This is a Petition filed by the TPL-G for determination of generation cost of TPL-G stations, which is approved by the Commission after detailed scrutiny as stated earlier.

3.11 Trajectory for Controllable Items

M/s. Utility Users' Welfare Association has stated that Commission has not specified the trajectory for controllable item like PLF, AT&C losses, transit loss, SHR, Aux. Consumption etc.

Response of TPL

The Commission has specified the trajectories for various performance parameters in the accordance with the provisions of GERC (MYT) Regulations, 2011.

Commission's Observation

The Commission has fixed trajectory for various operational parameters.

3.12 Incentive for achieving targeted PAF, PLF and Transit loss

Objection

M/s. Utility Users' Welfare Association has stated that no incentive should be granted to TPL as it failed to achieve targeted PAF and PLF of MYT order. But disincentives should be imposed by adjusting incentive awarded in FY 2007-08 and 2008-09.

Response of TPL

The Commission allows incentive/disincentive as per the provision of GERC (MYT) Regulations, 2011.

Commission's Observation

Incentives are allowed wherever the Petitioner is eligible for such incentives as per GERC Regulations.

3.13 Transit Loss Details of Imported Coal

Objection

M/s Utility Users' Welfare Association has stated that Commission should call for the details of transit loss of imported coal because TPL may be trying to legitimate higher transit loss to compensate the loss of imported coal by claiming it on domestic. There is no Regulation which permits transit loss on imported coal. UUWA requested the Commission to amend the Regulations and should allow transit loss on imported coal because there are more possibilities of transit loss than the domestic one. This will not inspire the generating companies to do wrong to adjust transit loss on imported coal to some other account head.

Response of TPL

The Commission allows treatment to various parameters in accordance with the provision of GERC (MYT) Regulations, 2011.

Commission's Observation

The Commission will examine to amend the Regulations for transit loss of imported coal.

3.14 Income Tax as Expenditure

Objection

M/s. Utility Users' Welfare Association suggested for allowing income tax as expenditure which is really paid by TPL and should be apportioned proportionately, if paid on consolidated profit.

Response of TPL

The Petitioner has claimed income tax for FY 2014-15 by apportioning the actual amount of tax paid in respect of PBT as per audited accounts.

Commission's Observation

The Commission approves the Income Tax based on the actual tax paid by the utility.

3.15 Determination of generation Tariff on cost plus basis

Objection

M/s. Utility Users' Welfare Association has requested the Commission not to determine the generation tariff on cost plus basis as it is becoming costlier year on year.

Response of TPL

The determination of Tariff on cost plus basis is in accordance with GERC (MYT) Regulations, 2011 framed under the provisions of Electricity Act, 2003.

Commission's Observation

The Commission approves the generation tariff as per the provisions of GERC (MYT) Regulations, 2011.

3.16 Power Purchase Agreement

Objection

M/s. Utility Users' Welfare Association has stated that the Objector has observed that there is no power purchase agreement between TPL-G (APP) and the Petitioner and objected to the power purchase cost incurred by the Petitioner from TPL-G (APP).

Response of Petitioner

TPL-G (APP) is the embedded generation and is the approved source of power purchase. Further, it may kindly be noted that the GERC (MYT) Regulations, 2011 specifies power purchase cost as legitimate item of expenditure.

Commission's Observation

TPL-G is an approved source of power for TPL-D and the power purchase cost is approved after detailed verification.

3.17 Treatment of Reserve and Surplus

Objection

M/s. Laghu Udyog Bharati has stated that

The details have not been received for reserve and surplus of Rs. 55.51 Crore in the current year and the reserve and surplus H.O. adjustment in any note in Annual Accounts of last year has not been shown anywhere and also the details of surplus of previous years also not reflected.

Response of TPL

It is stated that all information for arriving at ARR and corresponding gap/surplus has been provided in the petition in accordance with GERC (MYT) Regulations, 2011.

Commission's Observation

The petition is filed by TPL-G as per GERC (MYT) Regulations, 2011 and the generation costs are approved after detailed verification as stated earlier.

3.18 Reduction of Interest on Working Capital by way of advance payment of generation charges

Objection

M/s. Laghu Udyog Bharati has stated that;

a. no interest on Working Capital is to be allowed as the distribution companies have collected security deposit of 1.5 to 2 months from consumers who are required to pay advance of one-month energy charges. In view of this Rs. 21.13 Crore is not admissible.
b. Further depreciation sum available is Rs. 359.11 Crore and hence finance cost of Rs. 41.79 Crore is not admissible (Note 17)
c. Table 17-18 of ARR shows Rs. 26 Crore as interest expenses whereas Table 19 of ARR shown Rs. 21.13 Crore as interest on working capital.
d. current loans and advances of Rs. 13.18 Crore is not shown in ARR (note 8 of annual accounts)

Response of TPL

The Petitioner has considered the interest charges as expenses per GERC (MYT) Regulations, 2011. The Petitioner has calculated the interest expenses by applying the opening weighted average rate of interest on actual loan portfolio at the beginning of year (i.e. on 01.04.2014) while repayment has been considered equal to the depreciation of the assets for the year.

Commission's Observation

The Commission has approved the interest on working capital as per norms specified in the GERC (MYT) Regulations, 2011.

3.19 Showing incentive as expense

Objection

M/s. Laghu Udyog Bharati has stated that incentive of Rs. 16.19 Crore is a disputed amount as it is included in expenses (Table 24 of ARR). Further it is not reflected in Annual Accounts and incentive for savings and efficiency improvements cannot be added to expenses.

Response of TPL

As per the GERC (MYT) Regulations, 2011, the incentive payable to a thermal generating station shall be calculated in accordance with the plant availability factor achieved against the normative plant availability factor of 85%. Accordingly, the incentive for the FY 2014-15 is Rs. 16.19 Crore. Therefore, the incentive claimed by the Petitioner is a legitimate item of ARR as per the Regulatory Framework.

Commission's Observation

The incentive is claimed by the Petitioner as per Regulations and is allowed by the Commission after detailed scrutiny as stated earlier.

3.20 Surplus and Tariff proposals for FY 2016-17

Objection

M/s. Laghu Udyog Bharati stated that surplus amount of Rs. 447.85 Crore is required to be credited to past FY 2014-15 ARR.

Response of TPL

The figures considered by M/s. Laghu Udyog Bharati is not in accordance with GERC (MYT) Regulations, 2011. The Petitioner has computed ARR and arrived at the gap as per provisions of GERC (MYT) Regulations, 2011.

Commission's Observation

The ARR filed by the Petitioner is examined as per GERC (MYT) Regulations, 2011 and approved after detailed scrutiny as stated earlier.

3.21 Details of Non-Tariff Income

Objection

M/s. Laghu Udyog Bharati stated that details of Non-Tariff income are not shown in ARR as per GERC (MYT) Regulations, 2011. Hence ARR is to be revised.

Response of TPL

All required information has been provided as per GERC (MYT) Regulations, 2011.

Commission's Observation

The Petitioner has provided all the required information as per GERC (MYT) Regulations, 2011.

3.22 Power Purchase Cost

Objection

M/s. Utility Users' Welfare Association has stated that the power purchase cost of TPL-G (APP) is shown as Rs. 1228.40 Crore in Petition No. 1551/2015 whereas it is shown as Rs. 1206.20 Crore in Petition No. 1552/53 of TPL-D (APP)

Response of TPL

The cost of power purchase depends upon various factors including quantum, period and market conditions. It may be noted that the power purchase cost is the legitimate item of expenditure incurred by the Petitioner to cater to the demand of its consumers.

Commission's Observation

The Power Purchase cost is approved by the Commission after detailed scrutiny as per the Regulations as stated earlier.

3.23 Truing up from FY 2000-01 to 2006-07

M/s. Utility Users' Welfare Association has stated that TPL should be directed to submit truing up from FY 2000-01 to 2006-07 because TPL has fudged the generation figures in FY 2006-07 showing more generation to make the base year 2007-08 of MYT framework application expensive to extort generation cost from the consumers. TPL should also be directed to submit truing up for the FY 2008-09 as per the directives of the Hon'ble APTEL.

Response of TPL

The proposal of the objector is not the subject matter of the current petition and the orders have attained finality.

Commission's Observation

The Commission at the relevant time had decided the Orders as per the Regulations prevailing at that time.

4. Truing up for FY 2014-15

This chapter of the Order deals with the truing up for FY 2014-15 for TPL-Generation, Ahmadabad.

The Commission has studied and analysed each component of the ARR for FY 2014-15 in the succeeding paragraphs.

4.1 Generating Stations of TPL-G (APP)

TPL has existing power generation facilities, with total installed capacity of 500 MW, at Ahmedabad TPL-G (APP) that consists of a 422 MW coal-based thermal power plant at Sabarmati Ahmedabad TPL-G (APP). TPL has also commissioned a combined cycle power plant (CCPP) of 1147.5 MW (SUGEN) at Akhakhol village near Surat in FY 2009-10. For its distribution business, TPL sourced power from its own generation facilities in Ahmedabad, SUGEN (to the extent of 835 MW) and the balance from other sources.

The generation cost of the SUGEN Plant has been decided by CERC and shall be taken as the power purchase cost for any purchase from SUGEN by TPL for its Distribution Companies at Ahmedabad, Gandhinagar and Surat.

The Commission is required to determine the generation cost for TPL-G (APP) stations. The generation costs of these stations are discussed below:

TPL-G (APP) owns and operates the following generating stations:

- Four coal-based thermal stations at Sabarmati, namely, Sabarmati C Station, Sabarmati D Station, Sabarmati E Station and Sabarmati F Station.

- One Combined Cycle gas based power plant at Vatva (since retired)

The details of the stations existing as on 1st April, 2014, along with their capacities and dates of commissioning, are given in the Table below:

Table 4.1: Capacity, COD and age of TPL-G (APP) Stations, as on 1st April, 2014

Name of the Station	Capacity in MW	Year of COD	Age / Years
Sabarmati Thermal Power Plant (Coal based)			
C Station	2 X 30 MW	1961/1997* *(year of turbine retrofitting)	55
D Station	1 X 120 MW	1978/2004*	37

Name of the Station	Capacity in MW	Year of COD	Age / Years
		*(Up-rated capacity)	
E Station	1 X 121 MW	1984/2013 (turbine up-rated)	31
F Station	1 X 121 MW	1988/2013 (turbine up-rated)	27
Vatva Combined Cycle Gas based Power Plant			
Gas turbine	2 X 32.5 MW	1990 & 1991	Retired from 31.03.2014
Steam Turbine	1 X 35 MW	1991	

4.2 Operating Performance Parameters

The fuel cost of a generation station depends on: (i) the performance parameters, such as Plant Load Factor (PLF), Station Heat Rate (SHR), Auxiliary Consumption, Secondary Fuel Oil Consumption and Transit Loss and (ii) cost parameters, such as Gross Calorific Value of the fuel, type of fuel and price of fuel, etc.

TPL has submitted the actual operating performance on Plant Availability Factor (PAF), Plant Load Factor (PLF), Station Heat Rate (SHR), Auxiliary Consumption, Specific Oil Consumption and transit loss of coal for FY 2014-15 for the individual stations. The Commission has taken up the truing up of the annual performance parameters for FY 2014-15, which are discussed in the following sections.

4.2.1 Plant Availability Factor (PAF)

Petitioner's Submission

TPL has submitted the actuals of plant availability factor for different stations for FY 2014-15. The PAF approved in the MTR Order dated 29th April, 2014 and the actuals, as furnished by TPL in the present petition for the period, are given in the Table below:

Table 4.2: Plant Availability Factor of TPL-G (APP) for FY 2014-15

(%)

Sl. No	Station	Approved for FY 2014-15 In MTR Order	Actuals for FY 2014-15
	Sabarmati		
1	C Station	92.05%	89.57%
2	D Station	84.14%	79.04%
3	E Station	94.83%	96.11%
4	F Station	93.49%	95.15%

TPL has submitted as follows regarding the major variations in actual and approved availability for the generating stations.

The variation in plant availability at all units except D station is only marginal. The reasons for the major variation in actual and approved availability for the D generating station is on account of extension of planned maintenance schedule due to on site teething problems faced during Boiler 2nd pass renovation work.

The actual availability of units has been computed, considering the annual planned shutdown and the forced outages of the units during FY 2014-15.

Commission's Analysis

It is found in the analysis that the PAF level is lower than the approved levels mentioned in the MTR Order in respect of C and D stations. However, it may be mentioned that, according to Clause 54.1 of GERC (MYT) Regulations, 2011, Normative Annual Plant Availability Factor for full recovery of annual fixed charges shall be 85% for all thermal generating stations. Since the actual PAF for all the stations of TPL, except D Station, has been more than 85%, they are eligible for recovery of fixed charges, as per GERC (MYT) Regulations, 2011. In the case of D Station, the PAF is substantially lower than that approved in the MTR Order.

The Commission considers the Plant Availability Factor for various stations, as in the MTR Order dated 29th April, 2014, for FY 2014-15, for truing up purpose, since this is a controllable parameter.

Hence, for the purpose of truing up for the FY 2014-15, the PAF level considered is as given in the Table below:

Table 4.3: Plant Availability Factor of TPL-G (APP) Considered for truing up for FY 2014-15

(%)

Sl. No	Stations	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15	Considered for truing up for FY 2014-15
	Sabarmati			
1	C Station	92.05%	89.57%	92.05%
2	D Station	84.14%	79.04%	84.14%
3	E Station	94.83%	96.11%	94.83%
4	F Station	93.49%	95.15%	93.49%

4.2.2 Plant Load Factor (PLF)

Petitioner's Submission

TPL has submitted the actuals of plant load factor (PLF) of different stations for FY 2014-15.

The PLF approved in the MTR Order dated 29th April, 2014 and the actuals, as furnished by TPL in the present petition, are given in the Table below:

Table 4.4: Plant Load Factor of TPL-G (APP) for FY 2014-15

(%)

Sl. No	Station	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15
	Sabarmati		
1	C Station	87.62%	67.79%
2	D Station	81.03%	71.02%
3	E Station	91.54%	88.10%
4	F Station	91.03%	89.27%

The overall PLF of Sabarmati station was 80.69% which was lower as compared to approved PLF of 87.85%.

It is also submitted that PLF is dependent on actual system demand which in turn depends upon the drawal by the consumers which is beyond the control of the petitioner. Therefore, the variation in the PLF is uncontrollable.

Commission's Analysis

The Commission has analysed the submissions made by the Petitioner.

The Commission has taken note of the above major reduction in PLF for C & D Stations. For the E & F Stations, the PLF achieved is marginally less than that approved in the MTR Order.

The Commission considers the Plant Load Factor for various stations at actuals for FY 2014-15, for truing up purposes, as it is an uncontrollable parameter.

Table 4.5: Plant Load Factor of TPL-G (APP) Considered for truing up for FY 2014-15

(%)

Sl. No	Stations	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15	Considered for truing up for FY 2014-15
	Sabarmati			
1	C Station	87.62%	67.79%	67.79%
2	D Station	81.03%	71.02%	71.02%
3	E Station	91.54%	88.10%	88.10%
4	F Station	91.03%	89.27%	89.27%

4.2.3 Auxiliary Consumption

Petitioner's Submission

TPL has submitted the actual auxiliary consumption of different stations for FY 2014-15.

The auxiliary consumption approved in the MTR Order dated 29th April, 2014, and the actuals as furnished by TPL in the present petition for the period are given in the Table below:

Table 4.6: Auxiliary Consumption of TPL-G (APP) for FY 2014-15

(%)

Sl. No	Station	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15
	Sabarmati		
1	C Station	9.50%	10.38%
2	D Station	9.00%	8.84%
3	E Station	9.00%	8.25%
4	F Station	9.00%	8.76%

TPL has submitted that it has made continuous efforts to maintain the auxiliary consumption at the approved levels, but the auxiliary consumption was higher than the approved values for C station due to the following reasons;

a) <u>Change in the grade of coal at Sabarmati</u>

Earlier, TPL used to operate its plants with grade A or B coal. Due to the steep increase in the prices of Grade A and B coal, TPL has shifted to Grade C and D in order to reduce the cost. Since Grade C and D have higher ash content and lower calorific value, TPL had to handle increase in tonnage of coal to fulfil the heat energy requirement of the plant. Due to this increase in coal quantity, the total power requirement has increased for coal handling Plant, the Milling Plant and other associated system, like air, gas and ash handling systems.

b) <u>Variation in Demand</u>

Further, TPL had to operate its plants at a lower level during the lower demand hours; which resulted in the increase in percentage Auxiliary Consumption.

The Petitioner has submitted that the variation in Auxiliary consumption should be considered as uncontrollable.

However, in the present Petition for the purpose of quantification of gains / losses, TPL has considered the entire variation in Auxiliary Consumption as a controllable parameter.

Commission's Analysis

It is noted that, except for the C station, the actual Auxiliary Consumption is less than what is approved in the MTR Order.

The Commission approves the auxiliary consumption for various stations, as approved in the MTR Order dated 29th April, 2014 for FY 2014-15, for truing up purpose, as it is a controllable parameter.

The auxiliary consumption approved for different stations for the purpose of "truing up" for FY 2014-15 is given in Table below:

Table 4.7: Auxiliary Consumption of TPL-G (APP) Approved for truing up for FY 2014-15

(%)

Sl. No	Stations	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15	Approved for truing up for FY 2014-15
	Sabarmati			
1	C Station	9.50%	10.38%	9.50%
2	D Station	9.00%	8.84%	9.00%
3	E Station	9.00%	8.25%	9.00%
4	F Station	9.00%	8.76%	9.00%

4.2.4 Station Heat Rate (SHR)

Petitioner's Submission

TPL has furnished the actual SHR attained for different stations during FY 2014-15. The station heat rate approved in the MTR Order dated 29th April, 2014 and the actuals, as furnished by TPL in the present petition for the period, are given in the Table below:

Table 4.8: Station Heat Rate of TPL-G (APP) Claimed for FY 2014-15

(kCal / kWh)

Sl. No	Station	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15
	Sabarmati		
1	C Station	3,150	3,156
2	D Station	2,450	2,450
3	E Station	2,455	2,450
4	F Station	2,455	2,447

TPL has submitted that it has been making all efforts to improve and maintain the SHR at the approved level.

Commission's Analysis

The SHR achieved is within the approved levels for all stations except for C station which is marginally more than the approved one.

For the purpose of True-up for FY 2014-15, the Commission approves the SHR as given in the Table below:

Table 4.9: Station Heat Rate Approved for truing up for FY 2014-15

(kCal / kWh)

Sl. No.	Stations	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15	Approved for truing up for FY 2014-15
	Sabarmati			
1	C Station	3150	3156	3150
2	D Station	2450	2450	2450
3	E Station	2455	2450	2455
4	F Station	2455	2447	2455

4.2.5 Secondary Fuel Oil Consumption (SFC)

Petitioner's Submission

TPL has furnished the actual Secondary Fuel Oil Consumption for the different stations of TPL-G (APP) during the FY 2014-15.

The Secondary Fuel Oil Consumption approved in the MTR Order dated 29th April, 2014 and the actuals, as furnished by TPL in the present Petition for the period, are given in the Table below:

Table 4.10: Secondary Fuel Oil Consumption of TPL-G (APP) for FY 2014-15

(ml/ kWh)

Sl. No	Station	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15
	Sabarmati		
1	C Station	2.00	1.30
2	D Station	1.00	0.72
3	E Station	1.00	0.44
4	F Station	1.00	0.39

It is submitted by TPL that it achieved the SFC in line with that approved by the Commission for all the plants.

It is also submitted by TPL that the SFC may increase from the current levels in future years, due to vintage of the plant and equipment and change in loading pattern of the plant.

Commission's Analysis

The actual Secondary Fuel Consumption (SFC), for all the stations is within the approved values.

Since the SFC is a controllable performance parameter, the Commission approves, for truing up purpose, the SFC values, as mentioned in the MTR Order for FY 2014-15.

Accordingly, the SFC approved for FY 2014-15, for truing up purpose, is given in the Table below:

Table 4.11: Secondary Fuel Oil Consumption Approved for truing up for FY 2014-15

(ml/ kWh)

Sl. No.	Stations	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15	Approved for truing up for FY 2014-15
	Sabarmati			
1	C Station	2.00	1.30	2.00
2	D Station	1.00	0.72	1.00
3	E Station	1.00	0.44	1.00
4	F Station	1.00	0.39	1.00

4.2.6 Transit Loss

Petitioner's Submission

In its petition, TPL has submitted the actual percentage of transit loss of coal for all the coal-based stations of TPL-G (APP) during the FY 2014-15.

The transit loss of coal approved in the MTR Order dated 29th April, 2014 and the actuals, as furnished by TPL in the present Petition for the period, are given in the Table below:

Table 4.12: Transit Loss of TPL-G (APP) for FY 2014-15

(%)

Sl. No	Station	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15
1	All coal- based stations	0.90	1.60

TPL has submitted as follows:

- TPL has been making continuous efforts to contain the Transit Losses. However, it is pertinent to note that there are various uncontrollable factors such as moisture loss during transit, windage and slippage losses due to which transit loss is still higher. It appears that further reduction is beyond the control of TPL.

- TPL submits that it has considered the transit loss as a controllable parameter in its calculations, as per GERC (MYT) Regulations, 2011. However, it requests the Commission to kindly consider the transit loss as uncontrollable, due to the factors beyond its (TPL's) control.

Commission's Analysis

Keeping in view the historical data, the Commission has prescribed the trajectory for higher transit loss in GERC (MYT) Regulations, 2011, compared to the norms set for transit loss in the GERC (Terms and Conditions of Tariff) Regulations, 2005.

Based on the above observation, the percentage of transit loss for truing up for FY 2014-15 is approved, as given in the Table below:

Table 4.13: Transit loss approved for truing up for FY 2014-15

(%)

Sl. No.	Stations	Approved for FY 2014-15 in MTR Order	Actuals for FY 2014-15	Approved for truing up for FY 2014-15
1	All coal- based stations	0.90	1.60	0.90

4.2.7 Summary of Performance Parameters Approved for truing up for FY 2014-15

Based on the analysis in the preceding paragraphs, the performance parameters approved for different power generation stations of TPL-G (APP) for the FY 2014-15, for truing up purpose, are listed in the Table below:

Table 4.14: Performance Parameters for TPL-G (APP) Stations Approved/Considered for truing up for the FY 2014-15

Sl. No	Station	PAF (%)	PLF (%)	Auxiliary Consumption (%)	SHR (Kcal/kWh)	Secondary oil Consumption (ml / kWh)	Transit loss of coal (%)
	Sabarmati						
1	C Station	92.05	67.79	9.50%	3150	2.00	0.90
2	D Station	84.14	71.02	9.00%	2450	1.00	0.90
3	E Station	94.83	88.10	9.00%	2455	1.00	0.90
4	F Station	93.49	89.27	9.00%	2455	1.00	0.90

4.3 Gross and Net generation

The gross and net generation of power in different stations, as per actuals submitted by TPL and as approved for truing up purpose for the FY 2014-15, are given in the Table below:

Table 4.15: The Gross and Net Generation of Power for truing up for FY 2014-15

Sl. No	Stations	As per actual submitted by TPL				As approved by the Commission			
		Gross generation (MUs)	Aux Cons (%)	Aux Cons (MUs)	Net generation (MUs)	Gross generation (MUs)	Aux Cons (%)	Aux Cons (MUs)	Net generation (MUs)
A	**Sabarmati**								
1	C Station	356.31	10.38	36.97	319.34	356.31	9.50	33.85	322.46
2	D Station	746.60	8.84	66.00	680.60	746.60	9.00	67.19	679.41
3	E Station	933.79	8.25	77.01	856.78	933.79	9.00	84.04	849.75
4	F Station	946.21	8.76	82.89	863.32	946.21	9.00	85.16	861.05
	Total	**2982.91**		**262.87**	**2720.04**	**2982.91**		**270.24**	**2712.67**

4.4 Cost Parameters

The cost parameters include GCV of fuel, mix of fuel and price of fuel. The Sabarmati C, D, E & F Stations of TPL-G (APP) run on coal as the base fuel. A mix of indigenous and imported coal is used in these stations.

TPL submitted the details of actual Wt. Av. GCV of mix of coal and Wt. Av price of fuel for different stations, as discussed below for FY 2014-15:

4.4.1 Mix of Coal

TPL has furnished the details of actual percentages of the mix of indigenous and imported coal in its coal-based power stations during the FY 2014-15, as given in the Table below:

Table 4.16: The Mix of Different Types of Coal for FY 2014-15*

Sl. No.	Station	Indigenous coal %	Imported coal %
	Sabarmati		
1	C Station	87.63	12.37
2	D Station	59.01	40.99
3	E Station	60.85	39.15
4	F Station	60.06	39.94

Note: The mix of coal for different stations is as per the additional information furnished by TPL vide its letter dated 30th January, 2016. The percentages is arrived at based on the quantities of indigenous and imported coals used in each station.

4.4.2 Wt. Av. Gross Calorific Value (GCV) of fuel

TPL has furnished the actuals of Wt. Av. Calorific Value of fuels for all the stations put together for FY 2014-15, as given in the Table below:

Table 4.17: Actual Wt. Av. Gross Calorific value (GCV) of Different Fuels for Coal-based Stations for FY 2014-15

Particulars	Calorific Value
Wt. Av. GCV of Indigenous coal (kcal / kg)	3757
Wt. Av. GCV of Imported coal (kcal / kg)	4958
Wt. Av. GCV of secondary fuel oil (kcal / L)	9993

In its reply to the communication sent by the Commission, TPL furnished additional information, vide its letter of 30th January, 2016, having details of fuel consumption and cost for each station. From these details, the Wt. Av. GCV of fuel consumed in each power station is as given in the Table below:

Table 4.18: Wt. Av. Calorific Value (CV) of Fuels for Different Stations for FY 2014-15

Sl. No.	Station	Wt. Av. GCV of mix of coal as fed into the boiler (kcal / kg)	Wt. Av. GCV of Secondary fuel oil (kcal / L)
	Sabarmati		
1	C Station	3873.44	9994.86
2	D Station	4263.58	9989.53
3	E Station	4233.62	9990.65
4	F Station	4237.22	9997.06

4.4.3 Wt. Av Prices of Fuel

TPL has furnished the actuals of Wt. Av Price per unit of different fuels for all the stations put together for FY 2014-15, as given in the Table below:

Table 4.19: Wt. Av. Price / Unit of Fuels for FY 2014-15 (Actuals)

Sl. No.	Station	Wt. Av. Cost of Indigenous coal (Rs. /MT)	Wt. Av. Cost of Imported coal (Rs. /MT)	Wt. Av. Cost of Secondary oil (Rs. /kL)
1	Sabarmati Coal Stations	4620.83	6183.23	50248.16

In its communication dated 30th January 2016, TPL has furnished the actual Wt. Av. cost / MT of different fuels for different stations for FY 2014-15, as given in the Table below:

Table 4.20: Av. Price / Unit of Fuels for FY 2014-15 (Actuals) for Different Stations

Sl. No.	Station	Av. Price of Indigenous coal (Rs. /MT)	Av. Price of Imported coal (Rs. /MT)	Av. Price of Secondary oil (Rs. /kL)
	Sabarmati			
1	C Station	4563.55	6170.37	50867
2	D Station	4519.82	6182.15	50133.48
3	E Station	4546.08	6198.08	49460.96
4	F Station	4543.60	6194.42	50523.61

Commission's Analysis

The Commission, after due validation, approves the Wt. Av. GCV of fuels, percentage mix of coal and prices of fuels (actuals), as furnished by TPL for individual stations and considered for truing up purpose for FY 2014-15, as these are uncontrollable items.

4.5 Fuel Costs

Based on the performance and cost parameters, the normative fuel costs for each of the stations, along with actuals furnished by TPL, are as given in the Table below:

Table 4.21: Fuel Cost of TPL-G (APP) for truing up for FY 2014-15

Sl. No.	Stations	As per actual submitted by TPL				Approved by the Commission			
		Gross generation (MUs)	Net Gen (MUs)	Fuel cost (Rs. Crore)	Fuel cost per unit net (Rs./kWh)	Gross generation (MUs)	Net Gen (MUs)	Fuel cost (Rs. Crore)	Fuel cost per unit net (Rs./kWh)
	Sabarmati								
1	C Station	356.31	319.34	141.54	4.43	356.31	322.46	141.39	4.38
2	D Station	746.6	680.6	226.91	3.33	746.6	679.41	226.89	3.34
3	E Station	933.79	856.78	284.8	3.32	933.79	849.75	286.21	3.37
4	F Station	946.21	863.32	288.38	3.34	946.21	861.05	290.43	3.37
	Total	**2982.91**	**2720.04**	**941.63**		**2982.91**	**2712.67**	**944.92**	

Detailed computation of the fuel cost for each of the stations has been given in Annexures 4.1 to 4.4 at the end of this chapter.

4.5.1 Approved fuel cost

The Commission has computed the normative fuel cost for the purpose of computing the gains/losses, due to the controllable factors.

The actual fuel costs of all the stations of TPL are almost equal to the normative costs.

The Commission has verified the actual fuel cost submitted by TPL with the annual accounts and the fuel cost as per annual accounts was Rs. 938.82 Crore, whereas actual submitted in TPL was Rs. 941.62 Crore.

The comparison between the fuel costs of all stations put together, as per annual accounts for FY 2014-15 and the cost approved for truing up purpose, are as given in the Table below:

Table 4.22: Fuel Cost Approved for truing up for FY 2014-15

(Rs. Crore)

Particulars	As per actuals	Approved for FY 2014-15
Total Fuel Cost	938.82	944.92

4.5.2 Gains/losses in fuel costs due to controllable factors of TPL-G (APP)

TPL has arrived at the fuel expenses incurred for FY 2014-15, on the basis of the actual operational parameters, such as station heat rate (SHR), auxiliary consumption, specific fuel oil consumption (SFC) and transit loss of coal. The Commission has compared the fuel expenses, so derived by TPL with the fuel expenses, on the basis of the approved operational performance parameters for actual net generation for identification of gains / losses on account of variation in these parameters and approves the gains / losses station-wise, as given in the Table below:

Table 4.23: Approved Gains / (Losses) from Fuel Expenses (due to Controllable Factors) for FY 2014-15

(Rs. Crore)

Sl. No.	Station	Fuel cost arrived at with approved parameters for actual net generation for FY 2014-15*	Actual fuel cost approved for truing up for FY 2014-15	Gains / (Losses) due to controllable factors
	Sabarmati			
1	C Station	140.02	141.39	(1.37)
2	D Station	227.29	226.89	0.40
3	E Station	288.58	286.21	2.37
4	F Station	291.19	290.43	0.76
	Total	**947.08**	**944.92**	**2.16**

**Note: Detailed computation of the fuel cost for each of the stations, with approved parameters for actual net generation, has been given in Annexures 4.1 to 4.4 at the end of this chapter.*

4.6 Fixed Charges

4.6.1 Operations and Maintenance (O&M) expenses

TPL has claimed Rs. 161.43 Crore as O&M expenses as against Rs. 134.19 Crore of composite O&M expenses approved for FY 2014-15 in the MTR Order.

Table 4.24: O&M Expenses of TPL-G (APP) Claimed for FY 2014-15

All figures in Rs. Crore	MTR Order	Actual
Operations and Maintenance Expenses	134.19	161.43

Petitioner's Submission

TPL has submitted that the actual O&M expenses have exceeded the approved value mainly due to Provision for wage revision. It may kindly be noted that the Petitioner was in discussions with unionized Employees of TPL- G (APP) for wage revision. As wage revision had to come into effect from 1st April-2013, the Petitioner had made the provision of Rs. 1.20 Crore and Rs. 11.95 Crore for wage revision in the employee expenses for FY 13-14 and FY 14-15, respectively, in its books. As the wage settlement concluded in FY 2015-16, the total impact of wage settlement crystallized during FY 2015-16. Therefore, the Petitioner requests the Commission to allow the total impact of wage revision as uncontrollable in FY 2015-16. Accordingly, in the present petition of truing up of FY 2014-15, the Petitioner has considered the variation in O&M expense on account of wage revision as controllable for sharing of gains/losses.

In addition to the above, an unforeseen major fault in the E-Station Generator stator required additional repairing cost of Rs. 8.15 Crore. The same was not a normal occurrence and thus it was beyond the control of the Petitioner.

The Petitioner has further submitted that ideally the variation in O&M expense on account of change in law and factors beyond the control should be considered as uncontrollable and the Commission should allow to pass on the impact. However, in the present petition, the Petitioner has considered the entire O&M expenses as controllable, except the repairing cost of E-station generator stator, for sharing of gains/losses. The major fault in the Generator stator has occurred for the first time. Occurrence of such major faults is a rare event which happens due to factors beyond the control of the Petitioner. Expenditure towards the same is over and above the base O&M expenses approved by the Commission. Hence, the

Petitioner has requested to consider such expenses as an exception and treat it as an uncontrollable item of expenditure.

The petitioner has considered the entire O&M expenses as controllable for sharing of gains / losses.

Commission's Analysis

TPL has submitted the actual O&M expenses at Rs. 161.43 Crore in the truing up for FY 2014-15. The O&M expenses as per annual accounts for FY 2014-15 are Rs. 211.14 Crore which include donations of Rs. 2.50 Crore, Expenses Capitalised of Rs. 25.37 Crore, Water Charges of Rs. 10.85 Crore, Expenses pertaining to Vatva Station as Rs. 11.00 Crore and Provision of Rs. 13.15 Crore related to wage revision.

The Commission has not considered the Expenses Capitalised of Rs. 25.37 Crore as O&M expense as it shall form the part of Gross Fixed Assets of the petitioner. The Commission has also not considered expenses pertaining to Vatva station as this station is retired in FY 2014-15. The Water Charge is a separate item of ARR, hence not considered in the O&M Charges. Donation expense of Rs. 2.50 Crore is also not considered by the Commission while approving O&M expenses of the petitioner.

The Commission, accordingly, approves the O&M expenses at Rs. 161.43 Crore, as per the annual accounts for truing up for FY 2014-15.

The O&M expenses and the Gains / (Losses) approved in the truing up for FY 2014-15 are given in the Table below:

Table 4.25: O&M Expenses and Gains / (Losses) Approved in truing up for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in MTR Order	Approved in truing up for FY 2014-15	Deviation + / (-)	Gains / (Losses) due to Controllable factor	Gains / (Losses) due to uncontrollable factor
O&M Expense	134.19	161.43	(27.24)	(27.24)	-

4.6.2 Water Charges

TPL has claimed Rs. 10.84 Crore towards actual water charges in the truing up for FY 2014-15, as against Rs. 8.37 Crore approved in the MTR Order for FY 2014-15. The details are given in the Table below:

Table 4.26: Water Charges Claimed in the truing up by TPL-G APP for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in MTR Order	Actual claimed in truing up for FY 2014-15
1	Water Charges	8.37	10.84

Petitioner's Submission

TPL has claimed the water Charges of Rs. 10.84 Crore and these water charges are not separately indicated in the annual accounts, but included in the total miscellaneous expenses of Rs. 20.33 Crore shown under the head of operation and other expenses.

Commission's Analysis

The Commission, accordingly, approves the water charges at Rs. 10.84 Crore in the truing up, as per the annual accounts.

The deviation is considered as uncontrollable and the gains and losses are considered, as detailed below:

Table 4.27: Gains / (Losses) Approved in the truing up for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in MTR Order	Approved for truing up for FY 2014-15	Deviation +/(-)	Gains / (Losses) due to uncontrollable factor
1	Water Charges	8.37	10.84	(2.47)	(2.47)

4.6.3 Capital expenditure, Capitalisation and Sources of Funding

TPL has claimed Rs. 41.17 Crore towards actual capital expenditure in the truing up for FY 2014-15, as against Rs. 48.74 Crore approved in the MTR Order for FY 2014-15. The details are given in the Table below:

Table 4.28: Capital Expenditure Claimed by TPL-G (APP) For FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	MTR Order	Actual
1	Boiler refurbishment of D station	9.60	14.26
2	Refurbishment of cooling tower at D station	3.00	3.70
3	Refurbishment of C station Building	4.00	0.02
4	Normal Capex - Sabarmati	28.45	19.56

Sl. No.	Particulars	MTR Order	Actual
5	Upgradation of E&F stations	-	2.20
6	Refurbishment of civil structures	-	1.30
7	Misc. Items	3.69	0.13
	Total Cost	**48.74**	**41.17**

Petitioner's Submission

The main reasons for variation in the capital expenditure against the approved items are described below:

a) **Boiler Refurbishment of D station –** TPL-G (APP) required shutdown of at least 50 days for D Station to carry out the boiler refurbishment. Since, major shutdown was availed for F Station and E Station in the year FY 2012-13 and FY 2013-14, this project was deferred to FY 2014-15. The Petitioner incurred the capex of Rs. 2.92 Crore during FY 13-14 and has now incurred balance Rs. 14.26 Crore in FY 14-15 against of total estimated project cost of Rs. 12 Crore. Based on the RLA studies, additional refurbishment work also had been performed against as envisaged. Hence, due to this additional work actual project cost had increased.

b) **Refurbishment of Cooling Tower at D station –** The scope of the project was changed from construction of new cooling tower to refurbishment due to the space constraints. The activity of refurbishment was initiated in FY 2012-13 and was executed in a phased manner. The Petitioner incurred the capex of Rs. 3.70 Crore during FY 14-15 against total estimated project cost of Rs. 3 Crore.

c) **Upgradation of E & F stations –** The major activity of uprating and modernisation was carried out in FY 2013-14. Expenditure of Rs. 145.43 Crore was incurred during the year out of total cost of Rs. 177.10 Crore for E Station. Further payments of Rs. 2.19 Crore have been made towards the project in FY 14-15 for E Station and balance has been paid for F Station.

d) **Refurbishment of civil structures –** The expenditure towards such works was estimated in MYT petition to the tune of Rs. 12 Crore. The refurbishment was done based on the availability of the front in the running plant. Due to feasibility issue at many locations, the Petitioner at times had to change the plan/scheme in consultation with Tata Consulting Engineers. The expenditure towards the same was incurred in the past three years to the tune of Rs. 3.30 Crore. Further Rs. 1.30 Crore have been incurred towards balance refurbishment done at necessary locations.

e) **Refurbishment of C Station Building –** The building & structure of C station at Sabarmati Power Station is very old. The repair/refurbishment was planned to strengthen this building based on the outcome of the RLA studies. Due to change in the scope of work, the project has now been deferred to FY 15-16 and FY 16-17.

f) **Normal Capital Expenditure –** TPL G (APP) incurred the expenditure of Rs. 19.56 Crore against approval of Rs. 28.45 Crore. The major variation is on account of deferment of major routine capital expenditure like refurbishment of water softening plant and procurement of spares for electrical system.

g) **Misc. Capital Expenditure –** TPL G (APP) incurred the expenditure of Rs. 0.13 Crore against approval of Rs. 3.69 Crore. The majority of the expenditure was to be incurred for the Training Centre Building. However, the same has been deferred due to budgetary constraints.

Commission's Analysis

TPL has claimed a capital expenditure of Rs. 41.17 Crore whereas capitalisation of Rs. 41.76 Crore is claimed against the capital expenditure of Rs. 48.74 Crore approved in MTR Order for FY 2014-15.

TPL has submitted the quantum of debt and equity, as detailed in the Table below:

Table 4.29: Capitalisation and Sources of Funding Claimed in truing up for FY 2014-15

(Rs. Crore)

All figures in Rs. Crore		Actual submitted by Petitioner
Opening GFA	(a)	1,169.47
Addition to GFA	(b)	41.76
Deletion to GFA	(c)	84.96
Closing GFA	(d)=(a)+(b)-(c)	1,126.27
Capitalization considered for Debt	(e)	28.76
Capitalization considered for Equity	(f)=(b)-(c)	(43.20)
Normative Debt @ 70%	(g)=(e)*70%	20.14
Normative Equity @ 30%	(h)=(f)*30%	(12.96)

The Commission observes that the actual capital expenditure incurred was much lower than the capital expenditure approved in the MTR Order for FY 2014-15. The net capitalisation, as verified from the annual accounts, is Rs. 41.76 Crore. TPL has decapitalised the asset to the extent of Rs. 84.96 Crore during FY 2014-15. Regulation 39.1 of GERC (MYT) Regulations, 2011 specifies that in case of retirement or replacement of assets, the loan capital approved shall be reduced to the extent of outstanding loan component of the original cost of the retired or replaced assets, based on documentary evidence. TPL vide letter dated 10th February, 2016 submitted the certificate from the Statutory Auditor. The certificate of the Statutory Auditor mentions that out of total retired assets value of Rs. 8495.73 Lakh, the assets of Rs. 7196.16 Lakh was capitalised prior to 01.04.2007 and the assets of Rs. 1299.57 Lakh was capitalised from 01.04.2007 onwards. The certificate also states that the Ahmedabad Generation area does not have any loan outstanding as at 31.03.2015, which was received prior to 31.03.2007. The certificate submitted by TPL does not clarify that the assets withdrawn is still having an outstanding loan of Rs. 13 Crore. TPL has requested that since the assets retired is having an outstanding loan of Rs. 13 Crore, that much amount of loan should not be withdrawn from the loan outstanding. However, TPL has not submitted any documentary evidence to show that the loan outstanding i.e. Rs. 13 Crore relates to the assets withdrawn. TPL has also not submitted year wise breakup of the assets withdrawn against which outstanding loan is claimed. In the absence of such year-wise details and year-wise repayment of loan by way of depreciation, the claim of the Petitioner cannot be validated. In view of above and in the absence of documentary evidence, the Commission considers the reduction of opening loan to the extent of 70% of the asset withdrawn.

The Commission approves the capitalisation and sources of funding, as shown in the Table below in the truing up for FY 2014-15.

Table 4.30: Approved Capitalisation and Sources of Funding in truing up for FY 2014-15

(Rs. Crore)

All figures in Rs. Crore		**Actual submitted by Petitioner**		**Approved in truing up for FY 2014-15**
Opening GFA	(a)	1,169.47	(a)	1169.47
Addition to GFA	(b)	41.76	(b)	41.76
Deletion to GFA	(c)	84.96	(c)	84.96
Closing GFA	(d)=(a)+(b)-(c)	1,126.27	(d)=(a)+(b)-(c)	1126.27
Capitalization considered for Debt	(e)	28.76	(e)=(b)-(c)	(43.20)

All figures in Rs. Crore		Actual submitted by Petitioner		Approved in truing up for FY 2014-15
Capitalization considered for Equity	(f)=(b)-(c)	(43.20)	(f)=(b)-(c)	(43.20)
Normative Debt @ 70%	(g)=(e)*70%	20.14	(g)=(e)*70%	(30.24)
Normative Equity @ 30%	(h)=(f)*30%	(12.96)	(h)=(f)*30%	(12.96)

4.6.4 Interest Expenses

TPL has claimed a sum of Rs. 26.00 Crore towards actual interest expenses in the truing up for FY 2014-15, as against Rs. Nil approved in the MTR Order for FY 2014-15, as detailed in the Table below:

Table 4.31: Total Interest Expenses Claimed in truing up for TPL-G (APP) for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in MTR Order	Actual claimed in truing up for FY 2014-15
1	Interest Expenses	Nil	26.00

Petitioner's Submission

The petitioner has considered the interest expenses as per the GERC (MYT) Regulations, 2011 on normative loans approved by the Commission. The petitioner has calculated the interest expenses by applying the opening Weighted Average Rate of interest, on the actual loan portfolio of the Petitioner at the beginning of the year (i.e. 01.04.2014), on the loan component while repayment has been considered equal to the depreciation of the assets for the year.

The Petitioner would further like to state that assets retired during the year has loan outstanding at Rs. 13 Crore in the books. The Petitioner therefore requests the Commission to consider deletion of Rs. 13 Crore for computing capitalisation to arrive at the allowable debt component for the year.

The normative loan schedule for FY 2014-15 and the corresponding interest expense is submitted for the approval of the Commission. The interest expense is an uncontrollable item as it depends on the actual capitalization and variation in rate of interest. The interest expense for FY 2014-15 is shown in the table below.

Table 4.32: Interest Claimed in the truing up for FY 2014-15

(Rs. Crore)

Particulars	Actual
Capitalization During the Year	28.76
Normative Debt @ 70%	20.14
Opening Balance	234.33
New Borrowings	20.14

Particulars	Actual
Repayments	47.78
Closing Balance	206.69
Interest Expense @ 11.76%	**25.94**
Other Borrowing Cost	0.06
Total Interest Expenditure	**26.00**

Commission's Analysis

TPL has considered opening loan balance as on 01.04.2014 equal to closing loan balance of FY 2013-14 as shown in the tariff order dated 31st March, 2015. Since, the assets are withdrawn w.e.f. 01.04.2014 as per letter of Central Electricity Authority dated 05.08.2015, the Commission considered to reduce the opening loan for FY 2014-15 to the extent of debt portion (70%) of the value of the assets withdrawn. The additional loan considered by the Commission is 70% of the value of assets addition.

The Commission has obtained the details of actual loan portfolio as on 01.04.2013 from TPL and the weighted average rate of interest worked out to 11.76%. The other borrowing cost is Rs. 0.06 Crore as per annual accounts.

Accordingly, the Commission has computed the allowable interest charges, adopting the weighted average rate of 11.76% for FY 2014-15, in accordance with the provisions of GERC (MYT) Regulations, 2011, as detailed in the Table below:

Table 4.33: Interest Approved by the Commission in the truing up for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved in truing up for FY 2014-15
1	Opening Loan	174.86
2	New loan During the Year	29.23
3	Repayment During the Year	47.78
4	Closing Loan	156.31
5	Average Loan	165.58
6	Rate of Interest	11.76%
7	Interest	19.47
8	Other Borrowing Costs	0.06
9	**Total Interest and Finance Charges**	19.53

The Commission, accordingly, approves the interest and finance charges of Rs. 19.53 Crore in the truing up for FY 2014-15.

With regard to the computation of gains / losses, Regulation 23.2 considers variation in capitalisation, on account of time and/or cost overruns/efficiencies in the implementation of capital expenditure project, not attributable to an approved change in scope of such project, change in statutory levies or force majeure events, as a controllable factor. If the gain is on account of lesser capital expenditure and capitalisation, it cannot be attributed to the efficiency of the utility to allow 2/3rd of the gain to the utility. Similarly, if the loss is on account of more capital expenditure and capitalisation due to bonafide reasons, the utility cannot be penalised by allowing only 1/3rd of the loss in the ARR. Accordingly, the Commission has decided to consider variation in capitalisation as uncontrollable. Hence, the components of ARR related to capitalisation, like interest and finance charges, depreciation and return on equity are considered as uncontrollable.

The Commission, accordingly, approves the gains / losses on account of interest and finance charges as uncontrollable, in the truing up for FY 2014-15, as detailed in the Table below:

Table 4.34: Gains / (Losses) Approved in the truing up for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in MTR Order	Actual claimed in truing up for FY 2014-15	Approved in truing up for FY 2014-15	Deviation +/(-)	Gains / (Losses) due to uncontrollable factor
Interest and Finance Charges	0	26	19.53	(19.53)	(19.53)

4.6.5 Interest on Working Capital

TPL has claimed a sum of Rs. 21.13 Crore towards interest on working capital in the truing up of FY 2014-15, as against Rs. 20.32 Crore approved in the MTR Order for FY 2014-15, as detailed in the Table below:

Table 4.35: Interest on Working Capital of TPL-G (APP) Claimed for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in MTR Order	Actual claimed in truing up for FY 2014-15
1	Coal for 1.5 Month	114.39	116.58
2	Secondary Fuel for 2 months	2.66	1.50
3	Gas for 1 Month	-	-
4	O&M Expenses for 1 Month	11.18	13.45
5	1% of GFA for Maintenance Spares	12.38	11.69
6	Receivables for 1 Months	-	-
7	Normative Working Capital	140.61	143.22
8	Interest Rate	14.45%	14.75%
9	Interest on Working Capital	**20.32**	**21.13**

Petitioner's Submission

The petitioner has submitted that the interest on working capital is arrived at by applying interest rate of 14.75% on the working capital requirement computed as per the GERC (MYT) Regulations, 2011. The working capital requirement is higher than the approved, mainly due to increase in actual fuel costs compared to the approved base cost, which is uncontrollable in nature. Thus, the interest on working capital has increased on account of variation in the working capital requirement and the interest rate.

Commission's Analysis

The Commission has examined the interest on working capital claimed by TPL for FY 2014-15. The Commission has observed that TPL has worked out the interest on working capital, considering 14.75% the SBAR as on 01.04.2014.

Regulation 41.2 (b) specifies that interest shall be allowed at a rate equal to the State Bank Advance Rate (SBAR) as on 1st April of the financial year in which the petition is filed. While approving the interest on working capital in the truing up for FY 2011-12, the Commission decided to consider the rate (SBAR) prevailing as on 1st April of the financial year for which truing up is being done. The SBAR as on 1st April, 2014 was 14.75%. The Commission, accordingly, takes into consideration the SBAR of 14.75% in computation of Interest in Working Capital for FY 2014-15.

The Commission has computed the Working Capital and interest thereon, as detailed in the Table below:

Table 4.36: Interest on Working Capital Approved in the truing up for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Actual claimed in truing up for FY 2014-15	Approved in truing up for FY 2014-15
1	Coal cost 1.5 Month	116.58	116.03
2	Secondary fuel for 2 Months	1.50	2.79
3	Gas for 1 Month	-	-
4	O&M expenses for 1 Month	13.45	13.45
5	1% of GFA for Maintenance Spares	11.69	11.69
6	Receivables for 1 Month	-	
7	Normative Working Capital	143.22	143.97
8	Interest Rate	14.75%	14.75%
9	Interest on Working Capital	**21.13**	21.24

The Commission, accordingly, approves the interest on working capital at Rs. 21.24 Crore in the truing up for FY 2014-15.

As indicated above, the Commission has analysed various components – controllable and uncontrollable to arrive at the approved figure of working capital, based on which, the interest on working capital has been calculated. After working out the interest on working capital, the Commission has treated the interest as an uncontrollable cost, for the purpose of estimating Gains / (Losses).

The Commission, accordingly, approves the Gains / (Losses) on account of interest on working capital in the truing up for FY 2014-15, as detailed in the Table below:

Table 4.37: Gains / (Losses) in Interest on Working Capital Approved in the truing up for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in MTR Order	Approved in truing up for FY 2014-15	Deviation +/(-)	Gains /(Losses) due to Controllable Factors	Gains /(Losses) due to Uncontrollable Factors
Interest on Working Capital	20.32	21.24	(0.92)		(0.92)

4.6.6 Depreciation

TPL has claimed a sum of Rs. 47.78 Crore towards depreciation in the truing up for FY 2014-15, as against Rs. 45.80 Crore approved in the MTR Order for FY 2014-15, as detailed in the Table below:

Table 4.38: Depreciation of TPL-G (APP) Claimed for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in the MTR Order	Actual claimed in truing up for FY 2014-15
1	Depreciation	45.80	47.78

Petitioner's Submission

TPL has submitted that the depreciation rates, as per CERC (Terms and Conditions of Tariff) Regulations, 2004, are applied on the opening GFA of FY 2009-10 and for addition of assets from 1st April, 2009 onwards, the depreciation has been computed at depreciation rates specified in the Appendix III to the CERC (Terms & Conditions of Tariff) Regulations, 2009 as approved by the Commission.

Commission's Analysis

The details of opening balance of assets as on 1st April, 2014, and addition and deduction to the Gross Block during FY 2014-15 and the depreciation on the assets, classification wise, are given in Form 12, Part 1 of the petition. The opening and closing balances of assets are as per the annual accounts for FY 2014-15.

The Commission, accordingly, approves the depreciation at Rs. 47.78 Crore in the truing up for FY 2014-15.

As noted in Para 4.6.4 above, the Commission is of the view that the depreciation should be treated as uncontrollable. The Commission, accordingly, approves the Gains / Losses on account of depreciation in the truing up for FY 2014-15, as detailed in the Table below:

The Commission, accordingly, approves the Gains / (Losses) on account of depreciation in the truing up for FY 2014-15, as detailed in the Table below:

Table 4.39: Gains / (Losses) due to Depreciation Approved in the truing up for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in MTR Order	Approved in truing up for FY 2014-15	Deviation +/(-)	Gains / (Losses) due to Uncontrollable Factors
Depreciation	45.80	47.78	(1.98)	(1.98)

4.6.7 Return on Equity

TPL has claimed a sum of Rs. 60.39 Crore towards return on equity in the truing up for FY 2014-15, as against Rs. 46.16 Crore approved in the MTR Order for FY 2014-15, as detailed in the Table below:

Table 4.40: Return on Equity of TPL-G (APP) Claimed for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in the MTR Order	Actual claimed in truing up for FY 2014-15
1	Opening Equity	339.49	437.84
2	Equity Addition	(19.51)	(12.96)
3	Closing Equity	319.98	424.88
4	Average Equity	329.74	431.36
5	**Return on Equity**	**46.16**	**60.39**

Petitioner's Submission

TPL has submitted that the return on equity has been computed at 14% on the average of the opening and closing balance of equity for FY 2014-15.

Commission's Analysis

TPL has considered opening equity as on 01.04.2014 equal to closing equity of FY 2013-14 as shown in the tariff order dated 31st March, 2015. Since, the assets are withdrawn w.e.f. 01.04.2014 as per letter of Central Electricity Authority dated 05.08.2015, the Commission considered to reduce the opening equity for FY 2014-15 to the extent of equity portion (30%) of the value of the assets withdrawn. The additional equity considered by the Commission is 30% of the value of assets addition.

The Commission, accordingly, approves the return on equity of Rs. 58.61 Crore in the truing up for FY 2014-15, as detailed in the Table below:

Table 4.41: Return on Equity approved in the truing up for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Claimed in truing up for FY 2014-15	Approved in truing up for FY 2014-15
1	Opening Equity	437.84	412.35
2	Equity Addition	(12.96)	12.53
3	Closing Equity	424.88	424.88
4	Average Equity	431.36	418.62
5	Return on Equity	**60.39**	58.61

As noted in Para 4.6.4 above, the Commission is of the view that the return on equity should be treated as uncontrollable. The Commission, accordingly, approves the gains /losses on account of return on equity in the truing up for FY 2014-15, as detailed in the Table below:

The Commission, accordingly, approves the Gains / Losses on account of return on equity in the truing up for FY 2014-15, as detailed below:

Table 4.42: Return on Equity and Gains / (Losses) Approved in the truing up for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in MTR Order	Approved in truing up for FY 2014-15	Deviation +/(-)	Gains / (Losses) due to uncontrollable factors
Return on Equity	46.16	58.61	(12.45)	(12.45)

4.6.8 Income Tax

TPL has claimed a sum of Rs. 2.85 Crore towards income tax in the truing up for FY 2014-15, as against Rs. 18.51 Crore approved in the MTR Order for FY 2014-15, as detailed in the Table below:

Table 4.43: Income Tax Claimed for TPL-G (APP) for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in the MTR Order	Actual claimed in truing up for FY 2014-15
1	Income Tax	18.51	2.85

Petitioner's Submission

TPL has submitted that it has claimed the income tax of Rs. 2.85 Crore for FY 2014-15 considering the total tax paid and the ratio of PBT of TPL-(G) and PBT of the company as a whole as per the annual accounts.

Commission's Analysis

The Commission had directed TPL to furnish the details of segregation of income tax paid by TPL in respect of TPL Generation along with copies of challans of income tax paid. In its reply, vide e-mail dated 27.01.2016 TPL submitted that being a single corporate entity, income tax is paid for the company as a whole. TPL has also submitted that it has computed the income tax, by applying the prevailing MAT rate on the PBT, as per the annual accounts and submitted the copy of challans of income tax paid. TPL has also submitted that over and above advance tax of Rs. 136 Crore, tax paid through TDS is Rs. 14.40 Crore for FY 2014-15.

The Commission verified the PBT figures with the annual accounts for FY 2014-15 and has found that the petitioner has shown a PBT of Rs. 20.98 Crore. The Commission has computed the income tax for the Petitioner, based on the proportion of PBT. The income tax apportioned to TPL Generation is Rs. 2.85 Crore for FY 2014-15.

The Commission, accordingly, approves the income tax at Rs. 2.85 Crore in the truing up for FY 2014-15.

The Commission has treated the income tax as an uncontrollable expense. The Commission, accordingly, approves the gains / losses on account of income tax in the truing up for FY 2014-15, as detailed in the Table below:

Table 4.44: Income Tax and Gains / (Losses) due to Income Tax Approved in the truing up for FY 2014-15

(Rs. Crore)

Particulars	Approved for FY 2014-15 in the MTR Order	Approved in truing up for FY 2014-15	Deviation +/(-)	Gains / (Losses) due to controllable factors	Gains / (Losses) due to uncontrollable factors
Income Tax	18.51	2.85	15.66	-	15.66

4.6.9 Non-Tariff income

Petitioner's Submission

TPL has submitted that the actual Non-Tariff income was Rs. 58.02 Crore in the truing up for FY 2014-15, as against Rs. 25.25 Crore approved in the MTR Order for FY 2014-15, as detailed in the Table below:

Table 4.45: Non-Tariff Income for TPL-G (APP) Claimed for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in the MTR Order	Actual claimed in truing up for FY 2014-15
1	Non-Tariff Income	25.25	58.02

Commission's Analysis

The Non-Tariff income submitted by TPL is Rs. 58.02 Crore for FY 2014-15. The Non-Tariff income, as per annual accounts, is Rs. 58.02 Crore.

The Commission, accordingly, approves the Non-Tariff income at Rs. 58.02 Crore in the truing up for FY 2014-15.

The deviation in Non-Tariff income is at Rs**.** 32.77 Crore, which is considered as an uncontrollable factor.

The Commission, accordingly, approves the Gains / (Losses) on account of Non-Tariff income in the truing up for FY 2014-15, as detailed below:

Table 4.46: Non-Tariff Income and Gains / (Losses) Approved in the truing up for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2014-15 in the MTR Order	Approved in truing up for FY 2013-14	Deviation +/(-)	Gains / (Losses) due to Uncontrollable Factors
1	Non-Tariff Income	25.25	58.02	(32.77)	(32.77)

4.6.10 Incentive

TPL has claimed a sum of Rs. 16.19 Crore towards incentive in the truing up for FY 2014-15, as detailed in the Table below:

Table 4.47: Incentive claimed for TPL-G (APP) in FY 2014-15

Particulars	Actual
Total Fixed Charges (in Rs. Crore)	272.39
Actual Annual PAF (in %)	90.05%
Normative Annual PAF (NAPAF) (in %)	85.00%
Allowable Fixed Charges incl. Incentive (in Rs. Crore)	288.58
Incentive / Disincentive (in Rs. Crore)	16.19

Petitioner's Submission

TPL has submitted that, as per GERC (MYT) Regulations, 2011, the incentive payable to a thermal generating station shall be calculated in accordance with the Plant Availability Factor of 85%.

Commission's Analysis

The Annual fixed charges are recoverable, as specified in Regulations 59 of the GERC (MYT) Regulations, 2011.

The additional capacity charges due to better PAF is dealt with in Para 4.9 of the order.

4.7 Revised ARR for FY 2014-15

The Commission has reviewed the performance of TPL-G (APP) under Regulation 23 of GERC (MYT) Regulations, 2011, with reference to the annual accounts for FY 2014-15.

Accordingly, the Commission has computed the sharing of gains and losses for FY 2014-15, based on the truing up for each of the components discussed in the above paragraphs. The ARR approved in the MTR Order dated 29th April, 2014, as claimed by TPL in truing up for FY 2014-15, along with sharing of gains / losses computed in accordance with GERC (MYT) Regulations, 2011, as given in the Table below:

Table 4.48: ARR Approved in truing up for FY 2014-15

(Rs. Crore)

Sl. No.	Annual Revenue Requirement	Approved for FY 2014-15 in MTR Order	Claimed in truing up for FY 2014-15	Approved in truing up for FY 2014-15	Deviation +/(-)	Gains/ (Losses) due to controllable factors	Gains/ (Losses) due to uncontrollable factors
1	2	3	4	5	6=(3-5)	7	8
1	Variable Cost	931.07	939.82	947.08	(16.01)	2.16	(18.17)
2	O&M Expenses	134.19	161.43	161.43	(27.24)	(27.24)	
3	Water Charges	8.37	10.84	10.84	(2.47)		(2.47)
4	Depreciation	45.80	47.78	47.78	(1.98)		(1.98)
5	Interest on Loan	0.00	26.00	19.53	(19.53)		(19.53)
6	Interest on Working Capital Loans	20.32	21.13	21.24	(0.92)		(0.92)
7	Return on Equity	46.16	60.39	58.61	(12.45)		(12.45)
8	Income Tax	18.51	2.85	2.85	15.66		15.66
9	Incentive	0.00	16.19	0.00	0.00		0.00
10	**Total expenditure**	**1204.42**	**1286.43**	**1269.35**	**(64.93)**	**(25.08)**	**(39.85)**
11	Less: Non-Tariff Income	25.25	58.02	58.02	(32.77)		(32.77)
12	**Aggregate Revenue Requirement**	**1179.17**	**1228.41**	**1211.33**	**(32.16)**	**(25.08)**	**(7.08)**

4.8 Sharing of Gains/Losses for FY 2014-15

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

The relevant Regulations are extracted below:

Regulation 24. Mechanism for pass-through of gains or losses, on account of uncontrollable factors

24.1 The approved aggregate gain or loss to the Generating Company or Transmission Licensee or Distribution Licensee on account of uncontrollable factors shall be passed through as an adjustment in the Tariff of the Generating Company or Transmission Licensee or Distribution Licensee over such period as may be specified in the Order of the Commission passed under these Regulations.

24.2 The Generating Company, or Transmission Licensee or Distribution Licensee shall submit such details of the variation between expenses incurred and revenue earned and figures approved by the Commission, in the prescribed *format to the Commission, along with detailed computations and supporting documents as may be required for verification by the Commission.*

24.3 Nothing contained in this Regulation 24 shall apply in respect of any gain or loss arising out of variations in the price of fuel and power purchase which shall be dealt with as specified by the Commission from time to time.

Regulation 25. Mechanism for sharing of gains or losses on account of controllable factors

25.1 The approved aggregate gain to the Generating Company or Transmission Licensee or Distribution Licensee on account of controllable factors shall be dealt with in the following manner:

One-third of the amount of such gain shall be passed on as a rebate in Tariffs over such period as may be specified in the Order of the Commission under Regulation 22.6;

The balance amount, which will amount to two-thirds of such gain, may be utilised at the discretion of the Generating Company or Transmission Licensee or Distribution Licensee.

25.2 The approved aggregate loss to the Generating Company or Transmission Licensee or Distribution Licensee on account of controllable factors shall be dealt with in the following manner:

One-third of the amount of such loss may be passed on as an additional charge in Tariffs over such period as may be specified in the Order of the Commission under Regulation 22.6; and

The balance amount, which will amount to two-thirds of such loss, shall be absorbed by the Generating Company or Transmission Licensee or Distribution Licensee."

The trued up ARR claimed by TPL-G (APP) for FY 2014-15 is given in the Table.

Table 4.49: Revised ARR projected for TPL-G (APP) for FY 2014-15

(in Rs. Crore)

Particulars		FY 2014-15
ARR as per MTR	(a)	1179.16
Gains / (Losses) due to Uncontrollable Factors	(b)	(35.62)
Gains / (Losses) due to Controllable Factors	(c)	(13.62)
Pass through as tariff	d=-(c/3+b)	40.16
ARR True-up	**e=a+d**	**1219.32**
Revenue from sale of energy	**f**	**1206.20**
Gap / (surplus)	**g = e-f**	**13.12**

The ARR approved for TPL-G (APP) in the truing up for FY 2014-15 is given in the Table below:

Table 4.50: Revised ARR approved for TPL-G (APP) for FY 2014-15

(Rs. Crore)

Sl. No.	Particulars	FY 2014-15
1	ARR approved in the MYT for FY 2014-15 (dated 29th April, 2014)	1179.17
2	Less: Gain on account of controllable factor to be passed on to the consumers (1/3rd)	(8.36)
3	Less: Gain on account of uncontrollable factor to be passed on to consumers	(7.08)
4	**Revised ARR approved for FY 2014-15 in the Truing up**	1194.61

4.9 Additional capacity charge due to better PAF

The GERC (MYT) Regulations, 2011, provide the formula for the capacity charges payable to generating stations in accordance with the PAF achieved against the normative PAF of 85%. Accordingly, the Commission computed the additional capacity charges due to better PAF as detailed in the Table below:

Table 4.51: Additional capacity charges for TPL-G (APP) for FY 2014-15

Particulars	Approved for truing up for FY 2014-15
Total Capacity charges (in Rs. Crore)	264.25
Actual Wt. Avg. Annual PAF of TPL-G (APP) (in %)	90.05%
Normative Annual PAF (NAPAF) (in %)	85%
Additional Capacity charges (in Rs. Crore)	15.70
Allowable Capacity charges (in Rs. Crore)	279.95

The Commission approves the total ARR of Rs. 1210.31 Crore (1194.61+15.70) of TPL-G (APP) for FY 2014-15. The same is considered as actual power purchase cost of power purchased from TPL-G (APP) for FY 2014-15 in ARR of TPL Distribution.

Annexure 4.1

Approved Fuel costs for FY 2014-15 for True-up
Fuel costs (Coal, Lignite & Secondary Oil) - C Station

Sl.No.	Item	Derivation	Unit	2014-15
1	Gross Generation	A	MUs	356.31
2	Auxiliary Consumption	C	%	9.50%
3	Auxiliary Consumption	B = A * C	MUs	33.85
4	Net Generation	Y=A - B	MUs	322.46
5	Capacity	T	MW	60.00
6	PLF	V	%	67.79
7	Station Heat Rate	D	KCal/kWh	3150.00
8	Sp. Oil Consumption	E	ml/kWh	2.00
9	Gross Calorific Value of Coal	F	kcal/kg	3873.44
10	Calorific value of Oil	G	kcal/l	9994.86
11	Overall Heat	H=A x D	G Cal	1122376.50
12	Heat from Oil	I=(A x E x G)/1000	G Cal	7122.54
13	Heat from Coal	J=H-I	G Cal	1115254
14	Transit losses	K	%	0.9%
15	Coal Blend			
16	A) Indigenous Coal	X1	%	87.63%
17	C) Imported Coal	X3	%	12.37%
18	Actual Oil Consumption	L=A x E	KL	712.62
19	Actual Coal Consumption	M=(J X 1000)/F	MT	287923.39
20	A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	254598.65
21	C) Imported Coal	Q3=M* X X3	MT	35616.12
22	Price of Coal			
23	A) Indigenous Coal	P1	Rs/MT	4563.55
24	C) Imported Coal	P3	Rs/MT	6170.37
25	Price of Oil	P4	Rs/MT	50867.00
26	Coal cost			
27	A) Indigenous Coal	N1=Q1 X P1	Rs Lakh	11618.74
28	C) Imported Coal	N3=Q3 X P3	Rs Lakh	2198
29	Total Coal Cost	N4=N1+N3	Rs Lakh	13816.38
30	Oil Cost	N5=P4 x L/10^5	Rs Lakh	362.49
31	Other Charges	N6	Rs. Lakh	(39.69)
32	Total Fuel Cost	O=N4 + N5 +N6	Rs Lakh	14139.18
33	Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.97
34	Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	4.38
35	Actual Net Generation	Z	MUs	319.34
36	Normative Fuel cost for actual net generation	Z1 = Z * Q * 10	Rs Lakh	14002.35

Annexure 4.2

Approved Fuel costs for FY 2014-15 for True-up
Fuel costs (Coal, Lignite & Secondary Oil) - D Station

Sl.No.	Item	Derivation	Unit	2014-15
1	Gross Generation	A	MUs	746.60
2	Auxiliary Consumption	C	%	9.00%
3	Auxiliary Consumption	B = A * C	MUs	67.19
4	Net Generation	Y=A - B	MUs	679.41
5	Capacity	T	MW	120.00
6	PLF	V	%	71.02
7	Station Heat Rate	D	KCal/kWh	2450.00
8	Sp. Oil Consumption	E	ml/kWh	1.00
9	Gross Calorific Value of Coal	F	kcal/kg	4263.58
10	Calorific value of Oil	G	kcal/l	9989.53
11	Overall Heat	H=A x D	G Cal	1829170.00
12	Heat from Oil	I=(A x E x G)/1000	G Cal	7458.18
13	Heat from Coal	J=H-I	G Cal	1821711.82
14	Transit losses	K	%	0.9%
15	Coal Blend			
16	A) Indigenous Coal	X1	%	59.01%
17	C) Imported Coal	X3	%	40.99%
18	Actual Oil Consumption	L=A x E	KL	746.60
19	Actual Coal Consumption	M=(J X 1000)/F	MT	427272.81
20	A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	254423.50
21	C) Imported Coal	Q3=M* X X3	MT	175139.13
22	Price of Coal			
23	A) Indigenous Coal	P1	Rs/MT	4519.82
24	C) Imported Coal	P3	Rs/MT	6182.15
25	Price of Oil	P4	Rs/MT	50133.48
26	Coal cost			
27	A) Indigenous Coal	N1=Q1 X P1	Rs Lakh	11499.48
28	C) Imported Coal	N3=Q3 X P3	Rs Lakh	10827.36
29	Total Coal Cost	N4=N1+N3	Rs Lakh	22326.85
30	Oil Cost	N5=P4 x L/10^5	Rs Lakh	374.30
31	Other Charges	N6	Rs. Lakh	(12.32)
32	Total Fuel Cost	O=N4 + N5 +N6	Rs Lakh	22688.82
33	Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.04
34	Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	3.34
35	Actual Net Generation	Z	MUs	680.60
36	Normative Fuel cost for actual net generation	Z1 = Z * Q * 10	Rs Lakh	22728.70

Annexure 4.3

Approved Fuel costs for FY 2014-15 for True-up
Fuel costs (Coal, Lignite & Secondary Oil) - E Station

Sl.No.	Item	Derivation	Unit	2014-15
1	Gross Generation	A	MUs	933.79
2	Auxiliary Consumption	C	%	9.00%
3	Auxiliary Consumption	B = A * C	MUs	84.04
4	Net Generation	Y=A - B	MUs	849.75
5	Capacity	T	MW	121.00
6	PLF	V	%	88.10
7	Station Heat Rate	D	KCal/kWh	2455.00
8	Sp. Oil Consumption	E	ml/kWh	1.00
9	Gross Calorific Value of Coal	F	kcal/kg	4233.62
10	Calorific value of Oil	G	kcal/l	9,990.65
11	Overall Heat	H=A x D	G Cal	2292454.45
12	Heat from Oil	I=(A x E x G)/1000	G Cal	9329.17
13	Heat from Coal	J=H-I	G Cal	2283125.28
14	Transit losses	K	%	0.9%
15	Coal Blend			
16	A) Indigenous Coal	X1	%	60.85%
17	C) Imported Coal	X3	%	39.15%
18	Actual Oil Consumption	L=A x E	KL	933.79
19	Actual Coal Consumption	M=(J X 1000)/F	MT	539284.41
20	A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	331134.78
21	C) Imported Coal	Q3=M* X X3	MT	211129.85
22	Price of Coal			
23	A) Indigenous Coal	P1	Rs/MT	4546.08
24	C) Imported Coal	P3	Rs/MT	6198.08
25	Price of Oil	P4	Rs/MT	49460.96
26	Coal cost			
27	A) Indigenous Coal	N1=Q1 X P1	Rs Lakh	15053.65
28	C) Imported Coal	N3=Q3 X P3	Rs Lakh	13086.00
29	Total Coal Cost	N4=N1+N2+N3	Rs Lakh	28139.65
30	Oil Cost	N5=P4 x L/10^5	Rs Lakh	461.86
31	Other Charges	N6	Rs. Lakh	19.61
32	Total Fuel Cost	O=N4 + N5 +N6	Rs Lakh	28621.12
33	Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.07
34	Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	3.37
35	Actual Net Generation	Z	MUs	856.78
36	Normative Fuel cost for actual net generation	Z1 = Z * Q * 10	Rs Lakh	28857.94

Annexure 4.4

Approved Fuel costs for FY 2014-15 for True-up
Fuel costs (Coal, Lignite & Secondary Oil) - F Station

Sl.No.	Item	Derivation	Unit	2014-15
1	Gross Generation	A	MUs	946.21
2	Auxiliary Consumption	C	%	9.00%
3	Auxiliary Consumption	B = A * C	MUs	85.16
4	Net Generation	Y=A - B	MUs	861.05
5	Capacity	T	MW	121.00
6	PLF	V	%	89.27
7	Station Heat Rate	D	KCal/kWh	2455.00
8	Sp. Oil Consumption	E	ml/kWh	1.00
9	Gross Calorific Value of Coal	F	kcal/kg	4237.22
10	Calorific value of Oil	G	kcal/l	9997.06
11	Overall Heat	H=A x D	G Cal	2322945.55
12	Heat from Oil	I=(A x E x G)/1000	G Cal	9459.32
13	Heat from Coal	J=H-I	G Cal	2313486.23
14	Transit losses	K	%	0.9%
15	Coal Blend			
16	A) Indigenous Coal	X1	%	60.06%
17	C) Imported Coal	X3	%	39.94%
18	Actual Oil Consumption	L=A x E	KL	946.21
19	Actual Coal Consumption	M=(J X 1000)/F	MT	545991.53
20	A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	330900.62
21	C) Imported Coal	Q3=M* X X3	MT	218069.02
22	Price of Coal			
23	A) Indigenous Coal	P1	Rs/MT	4543.60
24	C) Imported Coal	P3	Rs/MT	6194.42
25	Price of Oil	P4	Rs/MT	50523.61
26	Coal cost			
27	A) Indigenous Coal	N1=Q1 X P1	Rs Lakh	15034.80
28	C) Imported Coal	N3=Q3 X P3	Rs Lakh	13508.11
29	Total Coal Cost	N4=N1+N3	Rs Lakh	28542.91
30	Oil Cost	N5=P4 x L/10^5	Rs Lakh	478.06
31	Other Charges	N6	Rs. Lakh	21.88
32	Total Fuel Cost	O=N4 + N5 +N6	Rs Lakh	29042.85
33	Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.07
34	Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	3.37
35	Actual Net Generation	Z	MUs	863.32
36	Normative Fuel cost for actual net generation	Z1 = Z * Q * 10	Rs Lakh	29119.38

5. Determination of Generation Charges for FY 2016-17

5.1 Introduction

This chapter deals with the determination of fixed as well as variable charges for the FY 2016-17 for TPL-G (APP). The Commission has considered the fixed and variable charges approved in the Mid-term Review for FY 2015-16 as fixed and variable charge for FY 2016-17 as per the order dated 2nd December 2015 in Suo Motu Petition No. 1534 of 2015.

5.2 Approved ARR for FY 2016-17

Based on the above approach, the Table below summarises the fixed and variable charges for FY 2016-17.,

Table 5.1: Approved Fixed Charges for FY 2016-17

(Rs. Crore)

Sl. No	Particulars	Approved in Mid-term Review of FY 2016-17
1	O&M Expenses	141.86
2	Water Charges	8.37
3	Depreciation	44.70
4	Interest on Loan	0.00
5	Interest on working Capital	17.96
6	Return on Equity	44.95
7	Income Tax	18.51
8	Less: Non-Tariff Income	25.25
9	**Total**	**251.10**

5.3 Determination of Variable Charges for FY 2016-17

The Table below gives the energy charges for FY 2016-17.

Table 5.2: Approved Variable Charges for TPL-G (APP) for FY 2016-17

Sl. No	Station	Approved Fuel Cost for FY 2016-17 (Rs. Crore)	Fuel cost per unit gross (Rs. / kWh)	Fuel cost per unit net (Rs. / kWh)
A	**Sabarmati**			
1	C Station	119.63	3.27	3.62
2	D Station	221.05	2.79	3.07
3	E Station	223.71	2.76	3.04
4	F Station	236.92	2.84	3.12
5	**Total**	**801.31**		

The Table below gives the ARR for FY 2016-17.

Table 5.3: Approved ARR for TPL-G (APP) for FY 2016-17

(Rs. Crore)

Sl. No.	Particulars	FY 2016-17
1	Variable Cost	801.31
2	O&M Expenses	141.86
3	Water Charges	8.37
4	Depreciation	44.70
5	Interest on Loan	0
6	Interest on Working Capital	17.96
7	Return on Equity	44.95
8	Income Tax	18.51
9	Less: Non-Tariff Income	25.25
10	Total	**1052.41**

6. Compliance of Directives

6.1 Fresh Directives

Directive 1: Actual Performance Parameters

TPL-Generation shall submit month wise, at quarterly intervals, the actual performance parameters like PAF, PLF, SHR, Aux. Consumption, SFC, Transit loss etc. actual gross generation, actual net generation and coal stock position (both imported and indigenous) for each station to the Commission and also place the said information on its website.

Directive 2: Interest cost reduction

TPL-G (APP) is directed to negotiate with the lenders for reduction in the rate of interest on the borrowings failing which they should replace high cost debt with low cost debt so that the net benefit of interest cost reduction is available to the consumers.

TPL-G (APP) shall furnish Quarterly Progress Report about the action taken and results thereof.

COMMISSION'S ORDER

The Commission approves the Aggregate Revenue Requirement for TPL-G (APP) for FY 2016-17, as shown in the Table below:

Approved ARR for TPL-G (APP) for FY 2016-17

(Rs. Crore)

Sl. No.	Particulars	FY 2016-17
1	Variable Cost	801.31
2	O&M Expenses	141.86
3	Water Charges	8.37
4	Depreciation	44.70
5	Interest on loan	0
6	Interest on working Capital	17.96
7	Return on Equity	44.95
8	Income Tax	18.51
9	Less: Non-Tariff Income	25.25
10	**Total**	**1052.41**

This order shall come into force with effect from the 1st April, 2016.

Sd/- Sd/-

P. J. THAKKAR
Member

K. M. SHRINGARPURE
Member

Place: Gandhinagar
Date: 31/03/2016