GUJARAT ELECTRICITY REGULATORY COMMISSION

Tarff Order

Truing up for FY 2018-19
and
Determination of Tariff for FY 2020-21

For

Torrent Power Limited - Generation Ahmadabad

Case No. 1843 of 2019
30th March, 2020

6th Floor, GIFT ONE, Road 5C, GIFT CITY
Gandhinagar-382335 (Gujarat), INDIA
Phone: +91-79-23602000 Fax: +91-79-23602054/55
E-mail: gerc@gercin.org : Website www.gercin.org

सत्यमेव जयते

GUJARAT ELECTRICITY REGULATORY COMMISSION (GERC)

GANDHINAGAR

Tariff Order

Truing up for FY 2018-19

and

Determination of Tariff for FY 2020-21

For

Torrent Power Limited - Generation Ahmedabad

Case No. 1843 of 2019
30th March, 2020

CONTENTS

LIST OF TABLES

LIST OF ANNEXURE

ABBREVIATIONS

A&G	Administration and General Expenses
ARR	Aggregate Revenue Requirement
CAPEX	Capital Expenditure
CERC	Central Electricity Regulatory Commission
DISCOM	Distribution Company
EA	Electricity Act, 2003
FPPPA	Fuel and Power Purchase Price Adjustment
FY	Financial Year
GERC	Gujarat Electricity Regulatory Commission
GFA	Gross Fixed Assets
GoG	Government of Gujarat
HT	High Tension
kV	Kilo Volt
kVA	Kilo Volt Ampere
kVAh	Kilo Volt Ampere Hour
kWh	Kilo Watt Hour
LT	Low Tension
MTR	Mid-Term Review
MUs	Million Units (Million kWh)
MW	Mega Watt
MYT	Multi-Year Tariff
O&M	Operations and Maintenance
p.a.	Per Annum
PPA	Power Purchase Agreement
R&M	Repairs and Maintenance
SBI	State Bank of India
Second Control Period	FY 2011-12 to FY 2015-16
SLDC	State Load Despatch Centre
Third Control Period	FY 2016-17 to FY 2020-21

Before the Gujarat Electricity Regulatory Commission at Gandhinagar

Case No. 1843 of 2019

Date of the Order: 30/03/2020

CORAM

Shri Anand Kumar, Chairman

Shri P.J. Thakkar, Member

ORDER

Background and Brief History

1.1 Background

Torrent Power Limited (hereinafter referred to as TPL or the Petitioner) has filed the present petition under Section 62 of the Electricity Act, 2003, read in conjunction with Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2016, for the True-up of FY 2018-19 and for determination of tariff for its generation business at Ahmedabad for the FY 2020-21 on 30th November, 2019.

Gujarat Electricity Regulatory Commission (hereafter referred “the Commission”) notified the GERC (Multi-Year Tariff) Regulations, 2016 on 29th March, 2016 which is applicable for determination of tariff in all cases covered under the Regulations from 1st April, 2016 onwards. Regulations 17.2 (b) of the GERC (Multi-Year Tariff) Regulations, 2016 provides for submission of detailed application comprising of truing up for FY 2018-19 to be carried out under Gujarat Electricity Regulatory Commission (Multi-Year

Tariff) Regulations, 2016, revenue from the sale of power at existing tariffs and charges for the ensuing year (FY 2020-21), Revenue Gap or Revenue Surplus for the ensuing year of the Control Period, and determination of tariff for FY 2020-21.

After technical validation of the petition, it was registered on 4th December, 2019 and as provided under Regulation 29.1 of GERC MYT Regulations, 2016, the Commission has proceeded with this tariff order.

1.2 Torrent Power Limited (TPL)

Torrent Power Limited (TPL), 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 (Ahmadabad) 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 362 MW, at Ahmedabad and has a Combined Cycle Power Plant (CCPP) of 1147.5 MW (SUGEN) and its extension UNOSUGEN (382.5MW) capacity near Surat out of which a share of 835 MW from SUGEN and 278 MW from UNOSUGEN are allocated for Gujarat (Ahmedabad, Gandhinagar and Surat).

1.3 Commission's order for Approval of final ARR for FY 2016-17 and Approval of Multi-Year ARR for FY 2016-17 to FY 2020-21

The Petitioner filed its petition for Truing up of FY 2015-16, Approval of Final ARR for FY 2016-17, Approval of Multi-Year ARR for FY 2016-17 to FY 2020-21 and Determination of tariff for FY 2017-18 on 29th November, 2016. The petition was registered on 03rd December, 2016 (under Case No. 1626 of 2016). The Commission vide order dated 9th June, 2017 approved the Truing up for FY 2015-16, Final ARR for FY 2016-17, Multi-Year ARR for FY 2016-17 to FY 2020-21 and determined the tariff for FY 2017-18.

1.4 Commission's order for Approval of True-up for FY 2016-17 and tariff of FY 2018-19

The Petitioner filed a petition for Truing-up of FY 2016-17 and determination of tariff for FY 2018-19 on 30th December, 2017. The petition was registered on 03rd January, 2018 (Case No.1695 of 2018). The Commission vide order dated 31st March, 2018 approved the Truing-Up for FY 2016-17 and determined the tariff for FY 2018-19.

1.5 Commission's order for Approval of True up for FY 2017-18 and Mid-Term Review of ARR for FY 2019-20 and FY 2020-21

The Petitioner filed a petition for Truing Up of FY 2017-18 and Mid-Term Review of ARR for FY 2019-20 and FY 2020-21 on 30th November, 2018. The Petition was registered on 4th December 2018 (Case No.1763 of 2018).The Commission approved the Truing – Up of FY 2017-18 and revised the ARR for FY 2019-20 and FY 2020-21 vide order dated 24th April, 2019.

1.6 Background of the present petition

The Commission has notified the GERC (MYT) Regulations, 2016 for the control period of FY 2016-17 to FY 2020-21. Regulation 16.2 (iii) of the GERC (MYT) Regulations, 2016 provides for the truing up of previous year's expenses and revenue based on audited accounts vis-à-vis the approved forecast and categorization of variation in performance as those caused by factors within the control of the applicant (controllable factors) and those caused by factors beyond the control of the applicant (uncontrollable factors).

Further, Regulation 16.2 (vi) of the GERC (MYT) Regulations, 2016 provides for annual determination of tariff for the Generating Company, Transmission Licensee, SLDC, Distribution Wire Business and Retail Supply Business, for each financial year, within the Control Period, based on the approved forecast and results of the truing up exercise.

1.7 Registration of the Current Petition and the Public Hearing Process

The Petitioner submitted the current Petition for Truing–up of FY 2018-19 and determination of tariff for FY 2020-21 on 30th November, 2019. After technical validation of the petition, it was registered on 4th December, 2019 (Case No. 1843 of 2019) and as provided under Regulation 29.1 of the GERC MYT Regulations, 2016, the Commission has proceeded with this tariff order.

In accordance with Section 64 of the Electricity Act, 2003, TPL(G) was directed to publish its application in the newspapers to ensure public participation.

The Public Notice, inviting objections / suggestions from the stakeholders on the Truing up and tariff determination petition filed by TPL, was published in the following newspapers:

Table 1.1: List of Newspapers (Petitioner)

Sl. No.	Name of Newspaper	Language	Date of Publication
1	The Indian Express	English	14/12/2019
2	NavGujarat Samay	Gujarati	14/12/2019
3	Gujarat Guardian	Gujarati	14/12/2019

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 13th January, 2020.

The Commission also placed the petition and additional details received subsequently from the Petitioner on its website (www.gercin.org) for information and study for all the stakeholders.

The Commission also issued a notice for public hearing in the following news papers in order to solicit wider participation by the stockholder:

Table 1.2: List of Newspapers (Commission)

Sl. No.	Name of Newspaper	Language	Date of Publication
1	The Indian Express	English	04/02/2020
2	Divya Bhaskar	Gujarati	05/02/2020
3	Sandesh	Gujarati	05/02/2020

The Commission received objections / suggestions from the consumers / consumer organizations as shown in Table below. The Commission examined the objections / suggestions received from the stakeholders and fixed the date for public hearing for the petition on 13th February, 2020 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 status of stakeholders who submitted their written suggestion / objections, those who remained present in public hearing, those who could not attend the public hearings and those who made oral submissions is given in the Table below:

Table 1.3: List of Stakeholders

Sr. No.	Name of Stakeholders	Written Submission	Oral Submission	Present on the day of Public hearing
1.	Shri K.K. Bajaj	Yes	Yes	Yes
2.	Laghu Udyog Bharati - Gujarat	Yes	No	No
3.	Users' Welfare Association (UWA)	Yes	Yes	Yes
4.	Utility Users' Welfare Association (UUWA)	Yes	No	No
5.	Vishnubhai Desai	Yes	Yes	Yes

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

1.8 Approach of this Order

The GERC (Multi-Year Tariff) Regulations, 2016 provide for "Truing up" of the previous year and determination of Tariff for the ensuing year. The Commission has approved ARR for Five years of the Control Period of FY 2016-17 to FY 2020-21 in the MYT Order dated 9th June 2017.

The Commission on 9th June, 2017 passed order for truing up of FY 2015-16, determination of final ARR for FY 2016-17, determination of ARR for the third Control Period i.e. FY 2016-17 to FY 2020-21 and determination of tariff for the FY 2017-18.

TPL has approached the Commission with the present Petition for "Truing up" of the FY 2018-19 and determination of Tariff for the FY 2020-21.

The Commission has undertaken the "Truing up" for FY 2018-19, based on the submissions of the Petitioner. The Commission has undertaken the computation of gains and losses for FY 2018-19, based on the annual accounts and final ARR for FY

2018-19 approved vide Order dated 9th June 2017.

While truing up of FY 2018-19, the Commission has been primarily guided by the following principles:

- 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.
- Uncontrollable parameters have been revised based on the actual performance observed.
- The Truing up for the FY 2018-19 has been considered, based on the GERC (MYT) Regulations, 2016.

Determination of Tariff for FY 2020-21 has been considered as per the GERC (Multi-Year Tariff) Regulations, 2016 and amendment thereof as the base.

1.9 Contents of this Order

The Order is divided into **six** chapters as detailed 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 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 2018-19.
5. The fifth chapter deals with the determination of Tariff for FY 2020-21.
6. The sixth chapter deals with compliance of directives and issue of fresh directives.

2 Summary of TPL-G's Petition

2.1 Actual for FY 2018-19 submitted by TPL-G (APP)

TPL-G (APP) submitted the current petition seeking approval of True-up for ARR of FY 2018-19. The details of expenses under various heads of ARR are given in Table below:

Table 2.1: Actual claimed by TPL for FY 2018-19

(Rs Crore)

Sr. No.	Particulars	True-Up Year (2018-19)		
		MYT Order	Claimed in Petition	Deviation
		(a)	(b)	(c) = (a) - (b)
1	Variable Cost	786.90	864.11	(77.21)
2	O & M Expenses	169.95	138.68	31.27
3	Water Charges	12.25	15.32	(3.07)
4	Depreciation	45.03	45.59	(0.56)
5	Interest on Loan	3.44	5.07	(1.63)
6	Interest on Working Capital	14.35	14.96	(0.62)
7	Return on Equity	58.96	57.46	1.50
8	Income Tax	15.34	23.84	(8.50)
9	Incentive	0.00	6.73	(6.73)
11	Less: Non-Tariff Income	17.43	16.98	0.45
12	Aggregate Revenue Requirement	1088.78	1154.78	(66.00)

The trued-up ARR of TPL-G (APP) is shown in the table below:

Table 2.2: Trued-up ARR claimed by TPL for FY 2018-19

(Rs.Crore)

Particulars		2018-19
ARR as per MYT Order	(a)	1,088.78
Gains/(Losses) due to Uncontrollable Factors	(b)	(118.34)
Gains/(Losses) due to Controllable Factors	(c)	52.34
Pass through as tariff	d=(c/3+b)	(100.89)
ARR True-up	e=a - d	**1,189.67**

Further, the Hon'ble Appellate Tribunal for Electricity (APTEL) passed its judgment in Appeal no. 257 of 2016. Pursuant thereto and in compliance therewith, the Hon'ble Commission has issued the consequential order dated 19th August, 2019 for implementation of the said judgment. Accordingly, the Petitioner requests the Hon'ble

Commission to allow recovery of interest on loan of Rs. 23.09 Crore for FY 2014-15 to FY 2017-18 from TPL-D (A) and TPL-D (S) in addition to above trued up ARR of FY 2018-19, which has arisen due to the Commission passing consequential orders upon the subject dispensation by the Hon'ble APTEL.

The Petitioner also requests the Commission to allow balance recovery of Rs. 5.86 Crore, from TPL-D (A) and TPL-D (S), for FY 2017-18, on account of change in law, on consideration of and assessing the reasons and extent of the change in employee cost as more elaborately stated hereinafter, in this Petition.

2.2 ARR for FY 2020-21

TPL-G (APP) has also furnished the ARR for FY 2020-21 as depicted in the Table below:

Table 2.3: ARR for FY 2020-21

(Rs Crore)

Particulars	**Amount**
Variable Cost	817.70
O&M Expenses	189.94
Water Charges	13.70
Depreciation	51.03
Interest on Loan	-
Interest on Working Capital	13.27
Return on Equity	63.73
Income Tax	15.34
Less: Non-tariff Income	17.43
Net ARR	1,147.27

2.3 TPL-G (APP)'s request to the Commission

a) Admit the petition for truing up of FY 2018-19 and determination of tariff for FY 2020-21.

b) Approve the trued up ARR of FY 2018-19.

c) Approve the sharing of gains/ losses as proposed by the Petitioner for FY 2018-19.

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

e) Allow recovery on account of change in law, as set out in the present Petition.

f) Allow additions/ alterations/ changes/ modifications to the petition at a future date.

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

h) Allow any other relief, order or direction which the Hon'ble Commission deems fit to be issued.

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

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

In response to the public notice inviting objections / suggestions from stakeholders on the Petition filed by TPL-G for Truing up of FY 2018-19 and determination of ARR for FY 2020-21 under the GERC (MYT) Regulations, 2016, a number of Consumers / organizations filed their objections / suggestions in writing. Some of these objectors participated in the public hearing also. The objections / suggestions by the consumer / consumers organizations, the response from the Petitioner and the views of the Commission are given below:

3.1 Breakup of operation and Maintenance Expenses

The Objector has sought breakup of the O&M costs incurred by the Petitioner.

Response of TPL

The required details have been furnished in the formats of the Petition and the same was placed on the website of the Commission.

Commission's View

The Commission allows normative O&M expenses for Generation Business in a composite manner, i.e. employee expenses, A&G expenses, and R&M expenses together as one item of expenditure. Further, the Petitioner has submitted separate details of actual employee expenses, A&G expenses, and R&M expenses in the Petition and Formats which was also placed on GERC's website.

3.2 Consumption of Imported Coal

The Objector has submitted that the usage of imported coal should be reduced and the blending ratio of 80:20 to be achieved.

Response of TPL

The Fuel Supply Agreement with CIL fulfils only a part of the Petitioners coal requirement and for balance; it has to procure imported coal. To meet the technical requirements it has to procure and use imported coal.

Commission's View

The Commission is of the view that it would be improper to stipulate any specific blending ratio, as there are several variables to be borne in mind. At the same time, the Petitioner should decide on the blending ratio of indigenous and imported coal, to optimise the generation performance parameters and cost of generation without compromising the environmental norms.

3.3 Evaluation of requirements of Capex for meeting the new environmental standards

The Objector has submitted that the capex for meeting the environmental standards for all generating plants of the state should be evaluated by the Commission and then only the same may be allowed to be incurred.

Response of TPL

In order to comply with the revised norms of MoEF all the existing generating stations are required to incur capex inter alia for Flue Gas Desulphurisation (FGD) systems. Presently TPL has not considered any capex towards modifications required for complying with the MoEF notification, in the present petition.

Commission's View

The Commission has noted the observation made by the Objector and the response of the Petitioner. However, the Commission directed the Generators to put up a consolidated plan for capex vis-à-vis cost benefit analysis so that needful action shall be carried out.

3.4 Power Purchase

The Objector has submitted that the no details of seller, purchasers and tariff are given in the petition.

Response of TPL

The petitioner has submitted that the petition is filed as per the Regulations notified by the Commission from time to time. TPL-G (APP) is the approved source for supply of electricity to TPL-D. The purchase of power is at the regulated tariff as determined by the Hon'ble Commission.

Commission's View

AMGEN sells its entire power to TPL-D (A) and TPL-D (S) at the tariff determined by the Hon'ble Commission. As regard power purchase etc, it will be examined during TPL distribution ARR.

3.5 Accounting Statement

The Accounting Statement submitted by TPL-G is not separate accounts required to be maintained in accordance with Regulation 17.3 of the GERC (MYT) Regulations, 2016 read with Sections 41 and 51 of EA, 2003.

Response of TPL

The Petitioner prepares and maintains the accounts as per the Accounting Standards specified in accordance with the Companies Act, 2013. The segregated Financial Statements for FY 2017-18, duly certified by the Statutory Auditors of the Company, have been made available along with the Petition. TPL has been filing separate financial statements for each of its businesses along with the Petition before the Commission. The Petitioner has not infringed any provision of the Electricity Act, 2003 or the Regulations framed thereunder.

Commission's View

The Petitioner has submitted the separate accounts for TPL-G and each licenced entity, duly certified by their Statutory Auditors, in accordance with the EA, 2003 and the GERC (MYT) Regulations, 2016, which have been considered by the Commission for truing up the expenses and revenue for FY 2018-19, after exercising prudence check.

3.6 Security Deposit

TPL-D has not transferred the advance electricity consumption charges to TPL-G. The objector raised doubt over the account finalisation in this regard. The objector further stated that certification of auditors for compliance with Regulations 17 and 52 of the GERC (MYT) Regulations, 2016 is not shown and accounting of security deposit from consumers in TPL-G accounts needs to be investigated.

Response of TPL

The allegations made by the objector are refuted. The security deposit amount is being collected by TPL-D from retail consumers as per the provisions of the GERC Security Deposit Regulations, 2005 and the same is being accounted for in the ARR of the Distribution business, in line with the provisions of the GERC (MYT) Regulations, 2016. Therefore, the contentions of the Objector are contrary to the provisions of the applicable GERC Regulations.

Commission's View

The Security Deposits collected by the Distribution Licensees are used to meet their working capital requirements and are not required to be transferred to the generation entity supplying electricity to the Distribution Licensee.

3.7 Mismatch in Income and Expenditure with Accounting Statements

The Objector has submitted that the figures of income and expenditure submitted by the Petitioner are not matching with that of the audited accounts.

Response of TPL

The Petition is filed in line with the MYT Regulations under the provisions of Electricity Act, 2003 whereas the Accounting Statements are prepared as per the provisions of the Companies Act and in accordance with Accounting Standards duly verified by the Statutory Auditors of the Company. They both are under different statute and are not directly comparable.

Commission's View

The Commission has noted the observation made by the Objector and the response of the Petitioner.

3.8 Non-Tariff Income

The Objector has alleged manipulations regarding the non-tariff income.

Response of TPL

The petitioner refutes the allegations and submits that it has provided the requisite details in the formats of the petition.

Commission's View

Head-wise analysis of true-up of expenses and revenue for FY 2018-19 have been elaborated in Chapter 4 of this Order. The Petitioner has submitted the separate annual accounts for the generation business and each licenced entity, duly certified by the Statutory Auditors of the Company which have been considered by the Commission for truing up the expenses and revenue for FY 2017-18, after exercising prudence check.

3.9 Income Tax

Income tax has increased, However, neither documentary evidence nor certificate of Chartered Accountant is submitted in the Petition. The Commission may verify the actual Income Tax paid by TPL-G for its operations.

Response of TPL

The Petitioner has made the payment of Income Tax for the Company as a whole and the same gets reflected in the Company's Financial Statement duly audited by the Statutory Auditors. The copies of challan for payment of Income Tax are submitted to the Commission.

Commission's View

The Commission sought the necessary documentary evidence for payment of Income Tax and has allowed the Income Tax in the true-up for FY 2018-19.

4 Truing up for FY 2018-19

4.1 Introduction

This Chapter deals with the truing up of FY 2018-19 for TPL-G Ahmadabad Power Plant (APP).

The Commission has studied and analysed each component of the ARR for the FY 2018-19 in the following paragraphs.

4.1.1 Generating Stations of TPL-G (APP)

TPL has existing coal based thermal power generation facilities with total installed capacity of 362 MW at Sabarmati, Ahmedabad [TPL-G (APP)] that consist of 3 units viz. D-Station (120 MW), E-Station (121 MW) and F-Station (121 MW). C-station (60 MW) has been retired from 1st April, 2018. TPL had 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 sources power from its own generation facilities in Ahmadabad, SUGEN (to the extent of 835 MW) and balance from other sources.

The Commission is required to determine the generation cost for the TPL-G (APP) stations only, as SUGEN plant being inter-state generating station, falls within the jurisdiction of CERC. The generation costs of these stations are discussed as below:

The details of the stations existing as on 1stApril 2018 along with their capacities and dates of commission are given in the table below:

Table4.1: Capacity, COD and age of TPL-G (APP) Stations as on 1st April 2018

Sabarmati Thermal Power Plant (Coal based)			
Name of Station	**Capacity in MW**	**Year of COD**	**Age /Years**
D Station	120	1978/2004* *(Uprating capacity)	40
E Station	121	1984	34
F Station	121	1988	30

4.2 Operational 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 fuel, type of fuel and price of fuel etc.

TPL has submitted the actual operational performance on Plant Availability Factor (PAF), Plant Load Factor (PLF), Station Heat Rate (SHR), Auxiliary Consumption and Specific Oil Consumption and coal transit loss for FY 2018-19 for individual stations. The Commission has taken up the truing up of the annual performance parameters for FY 2018-19, as discussed in the following sections.

4.2.1 Plant Availability Factor (PAF)

Petitioner's submission

TPL-G (APP) has submitted that the actual plant availability factor for its three stations for FY 2018-19 has been computed considering planned shutdown and the forced outages of the units during the year. The PAF approved in the MYT Order dated 9th June, 2017 and the actual as furnished by TPL in the present petition for FY 2016-17 are given in the Table below:

Table 4.2: Plant Availability Factor of TPL-G (APP) for FY 2018-19

SI No.	Station	Approved for FY 2018-19 in the MYT Order	Actual for FY 2018-19
1	D Station	94.83%	94.14%
2	E Station	89.49%	90.66%
3	F Station	94.83%	94.62%

TPL-G (APP) has submitted that at the time of filing the MYT petition, the estimated availability of the units was based on the annual planned maintenance schedule. The variation in plant availability at all the units is marginal.

The reason for minor variation in actual and approved availability is due to the variation in planned maintenance days due to major activities carried out at D and F station and lower forced outages at E station during FY 2018-19.

Commission's Analysis

It is found in the analysis that the PAF level is almost same as the approved levels of the MYT Order dated 9th June, 2017 for D, E and F stations. It may be mentioned that, according to Regulation 53.1 of GERC (MYT) Regulations, 2016, 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, has been more than 85%, they are eligible for full recovery of fixed charges, as per the GERC (MYT) Regulations, 2016. TPL-G (APP) submitted the Actual Availability of the Stations as per SLDC Certificate.

The Commission considers the Plant Availability Factor for various stations, as in the MYT Order dated 9th June, 2017, for FY 2018-19, for truing up purpose, since this is a controllable parameter.

Hence, for truing up for FY 2018-19, the PAF considered is as given in the Table below:

Table 4.3: Plant Availability Factor of TPL-G (APP) approved for truing up for FY 2018-19

SI No.	Station	Approved for FY 2018-19 in the MYT Order	Actual for FY 2018-19	Approved for truing up for FY 2018-19
1	D Station	94.83%	94.14%	94.83%
2	E Station	89.49%	90.66%	89.49%
3	F Station	94.83%	94.62%	94.83%

4.2.2 Plant Load Factor (PLF)

Petitioner's submission

TPL-G (APP) has submitted the actual plant load factor (PLF) of different stations for FY 2018-19. The PLF approved in the MYT Order dated 9th June, 2017 and the actual as furnished by TPL in the present petition for FY 2018-19 are given in the Table below:

Table 4.4: Plant Load Factor of TPL-G (APP) for FY 2018-19

SI No.	Station	Approved for FY 2018-19 in the MYT Order	Actual for FY 2018-19
1	D Station	81.21%	86.18%
2	E Station	80.85%	86.75%
3	F Station	86.73%	90.59%

TPL-G (APP) has submitted that the actual PLF is higher than the approved PLF due to variation in the demand. TPL has also submitted that PLF is dependent on actual system demand which in turn depends upon the drawl by the consumers of the licensee which is beyond the control of the Petitioner.

Commission's Analysis

It is found in the analysis that the PLF level is higher than the approved levels of the MYT Order dated 9th June, 2017 for all stations of TPL-G (APP).

The Commission considers the Plant Load Factor for various stations at actual for FY 2018-19, for truing up purposes, as it is an uncontrollable parameter.

Table 4.5: Plant Load Factor of TPL-G (APP) approved for truing up for FY 2018-19

SI No.	Station	Approved for 2018-19 in the MYT Order	Actual for 2018-19	Approved for truing up
1	D Station	81.21%	86.18%	86.18%
2	E Station	80.85%	86.75%	86.75%
3	F Station	86.73%	90.59%	90.59%

4.2.3 Auxiliary consumption

Petitioner's submission

TPL-G (APP) has submitted the actual auxiliary consumption of different stations for FY 2018-19. The auxiliary consumption approved in the MYT Order dated 9th June, 2017 and the actual as furnished in the present petition for FY 2018-19 are given in the Table below:

Table 4.6: Auxiliary consumption of TPL-G (APP) for FY 2018-19

SI No.	Station	Approved for 2018-19 in the MYT Order	Actual for 2018-19
1	D Station	9.00%	8.63%
2	E Station	9.00%	8.16%
3	F Station	9.00%	8.62%

TPL has submitted that it has made continuous efforts to maintain the auxiliary consumption at approved levels. In turn, the actual auxiliary consumption was lower than the approved value. TPL has also submitted that in the present petition for the purpose of quantification of gains/loss, the Petitioner has considered the entire variation in Auxiliary consumption as controllable parameter.

Commission's Analysis

It is noted that, for all stations of TPL-G (APP), the actual Auxiliary Consumption is lower than the approved in the MYT Order.

The Commission approves the auxiliary consumption for various stations, as approved in the MYT Order dated 9th June, 2017 for FY 2018-19, for truing up purpose, as it is a controllable parameter as given in the Table below:

Table 4.7: Auxiliary consumption of TPL-G (APP) approved for truing up for FY 2018-19

Sl. No.	Station	Approved for FY 2018-19 in the MYT Order	Actual for FY 2018-19	Approved for FY 2018-19 for truing up
1	D Station	9.00%	8.63%	9.00%
2	E Station	9.00%	8.16%	9.00%
3	F Station	9.00%	8.62%	9.00%

4.2.4 Station Heat Rate (SHR)

Petitioner's submission

TPL-G (APP) has submitted the Station Heat Rate (SHR) of different stations for FY 2018-19. The SHR approved in the MYT Order dated 9th June, 2017 and the actual as furnished in the present petition for FY 2018-19 are given in the Table below:

Table 4.8: Station Heat Rate of TPL-G (APP) claimed for FY 2018-19

(Kcal/kWh)

Sl No.	Station	Approved for 2018-19 in the MYT Order	Actual for 2018-19
1	D Station	2450	2430
2	E Station	2455	2431
3	F Station	2455	2407

TPL-G (APP) submitted that it is making all efforts to improve and maintain the SHR at the approved level. The variation in SHR is a controllable parameter within the operating range of PLF and the variation in fuel consumption on account of this should be considered for sharing of gains/losses.

Commission's Analysis

The Commission notes that the SHR achieved is below the approved levels for all stations.

For the purpose of True-up for FY 2018-19, the Commission approves the SHR as given in the Table below:

Table 4.9: Station Heat Rate approved by Commission for TPL-G (APP) in FY 2018-19

(Kcal/kWh)

Sl No.	Station	Approved for 2018-19 in the MYT Order	Actual for 2018-19	Approved for 2018-19 for truing up
1	D Station	2450	2430	2450
2	E Station	2455	2431	2455
3	F Station	2455	2407	2455

4.2.5 Secondary Fuel Oil Consumption (SFC)

Petitioner's submission

TPL-G (APP) has submitted the Secondary Fuel Oil Consumption (SFC) of different stations for FY 2018-19. The SFC approved in the MYT Order dated 9th June, 2017 and the actual as furnished in the present petition for FY 2018-19 are given in the Table below:

Table 4.10: Secondary Fuel Oil Consumption of TPL-G (APP) claimed for FY 2018-19

(ml/kWh)

SI No.	Station	Approved for 2018-19 in the MYT Order	Actual for 2018-19
1	D Station	1.00	0.31
2	E Station	1.00	0.15
3	F Station	1.00	0.19

The Petitioner submitted that during FY 2018-19, TPL-G (APP) achieved the lower SFC due to lower forced outages for all the plants owing to continuous efforts and better preventive maintenance.

Commission's Analysis

The actual Secondary Fuel Oil Consumption (SFC), for all the stations is lower than 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 MYT Order dated 9th June, 2017 for FY 2018-19.

Accordingly, the SFC approved for FY 2018-19, for truing up purpose, is given in the Table below:

Table 4.11: Secondary Fuel Oil Consumption approved for truing up for FY 2018-19

(ml/kWh)

SI No.	Station	Approved for FY 2018-19 in the MYT Order	Actual for FY 2018-19	Approved for FY 2018-19 for truing up
1	D Station	1.00	0.31	1.00
2	E Station	1.00	0.15	1.00
3	F Station	1.00	0.19	1.00

4.2.6 Transit Loss

Petitioner's submission

The Petitioner submitted that against the 0.80% transit loss approved by the Commission for FY 2018-19 it has achieved the actual transit loss of 0.92%.

The Petitioner submitted that it has been making continuous efforts to contain the Transit Losses. However, there are various uncontrollable factors such as issue of accuracy of weighbridge at loading end, moisture loss, windage and slippage losses due to which transit loss exists.

The Petitioner submitted that it has considered the transit loss as controllable parameter in its calculation as per MYT Regulations.

Table 4.12: Transit Loss of TPL-G (APP) claimed for FY 2018-19

Stations	Approved for FY 2018-19 in the MYT Order	Actual for FY 2018-19
All coal based stations	0.80%	0.92%

Commission's Analysis

The Commission has noted the submission of the Petitioner regarding the transit loss of 0.92%. The Commission has considered the normative transit losses for truing up for FY 2018-19 as per the GERC (MYT) Regulations, 2016, as given in the Table below:

Table 4.13: Transit loss approved for truing up for FY 2018-19

Stations	Approved for FY 2018-19 in the MYT Order	Actual for FY 2018-19	Approved for FY 2018-19 for truing up
All coal based Stations	0.80%	0.92%	0.80%

4.2.7 Summary of performance parameters approved for truing up of FY 2018-19

Based on the analysis in the preceding paragraphs, the performance parameters approved for different power generation stations of TPL-G (APP) for FY 2018-19, for truing up purpose are listed in the Table below:

Table 4.14: Performance parameters for TPL-G (APP) stations approved for truing up for the FY 2018-19

Sl No.	Station	PAF	PLF	Aux. Consumption	Station Heat Rate Kcal/kWh (on GCV basis)	Secondary fuel oil consumption (gm/kWh)	Transit loss of coal
1	D Station	94.83%	86.18%	9.00%	2450	1.00	0.80%

2	E Station	89.49%	86.75%	9.00%	2455	1.00	0.80%
3	F Station	94.83%	90.59%	9.00%	2455	1.00	0.80%

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 2018-19 are given in the Table below:

Table 4.15: The gross and net generation of power for truing up for FY 2018-19

SI No.	Stations	As per actuals submitted by TPL				As approved by the Commission			
		Gross generation (MU)	Aux consumption (%)	Aux consumption (MU)	Net generation (MU)	Gross generation (MU)	Aux consumption (%)	Aux consumption (MU)	Net generation(MU)
1	D Station	905.95	8.63%	78.15	827.80	905.95	9.00%	81.54	824.41
2	E Station	919.52	8.16%	75.07	844.45	919.52	9.00%	82.76	836.77
3	F Station	960.19	8.62%	82.73	877.46	960.19	9.00%	86.42	873.78
	Total	**2785.66**		**235.96**	**2549.71**	**2785.66**		**250.71**	**2534.95**

4.4 Cost Parameters

The cost parameters include GCV of fuel, mix of fuel and price of fuel. The Sabarmati D, E & F Stations of TPL-G (APP) run on coal as the primary 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 2018-19.

4.4.1 Mix of Coal

Petitioner's submission

TPL-G (APP) has furnished the details of actual percentages of the mix of indigenous and imported coal in its coal based power stations during the FY 2018-19, as given in the Table below:

Table 4.16: The mix of different types of coal for FY 2018-19

SI No.	Stations	Indigenous coal (%)	Imported coal (%)
1	D Station	51%	49%
2	E Station	80%	20%
3	F Station	72%	28%

Commission's Analysis

The Commission, after due validation approve the percentage mix of coal as furnished by TPL-G (APP) for individual stations and considered the same for truing up purpose as these are uncontrollable items.

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

Petitioner's submission

TPL-G (APP) has furnished the actual Wt. Av. Gross Calorific Value of fuels for all the stations put together for FY 2018-19, 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 2018-19

Particulars	Approved in MYT Order	Calorific Value
Indigenous Coal (kcal / kg)	4053	4,277
Imported Coal (kcal / kg)	4888	4,785
Secondary Fuel Oil (kcal / L)	9969	9,810

Commission's Analysis

The Commission, after due validation approve the Wt. Av. Gross Calorific Value of fuels as furnished by TPL-G (APP) for all the station together and considered the same for truing up purpose as these are uncontrollable items.

4.4.3 Wt. Av. Prices of Fuel

Petitioner's submission

TPL-G (APP) has furnished the actual Wt. Av. Price per unit of different fuels for all the stations put together for FY 2018-19, as given in the Table below:

Table 4.18: Wt. Av. Price / unit of fuels for FY 2018-19 (Actual)

Sl. No.	Station	Wt. Av. cost of Indigenous coal (Rs/MT)	Wt. Av. cost of Imported coal (Rs/MT)	Wt. Av. cost of Secondary Fuel Oil (Rs/Kl)
1	All the coal stations	4,990.60	7,046.49	35,024.49

TPL-G (APP) has furnished the actual Wt. Av. cost / MT of different fuels for different stations for

FY 2018-19, as given in the Table below:

Table 4.19: Av. Price / Unit of Fuels for FY 2018-19 (Actual) 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)
1	D Station	5,349	6,952	35,250
2	E Station	5,352	6,862	34,935
3	F Station	5,353	6,934	34,754

Commission's Analysis

On a query from the Commission regarding the use of more imported coal in D-station (49%) as compared to that of E station (20%) and F station (28%), TPL-G(APP) responded that as per its inherent design characteristics, D station has less redundancy in its mills compared to E&F stations. Due to ageing and with only one standby mill, more wear and tear has been observed at D station's milling system over last one year. As imported coal has less ash content, use of imported coal causes less milling wear and tear and provides better firing in the boiler. Therefore for ensuring efficient mill maintenance and better stability and reliability more imported coal was used in D station.

The Commission, after due validation, approves the Wt. Av. GCV of fuels, percentage mix of coal and prices of fuels (actual), as furnished by TPL-G (APP) for individual stations and considered for truing up purpose for FY 2018-19, 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 actual furnished by TPL-G (APP), are as given in the Table below:

Table 4.20: Fuel Cost of TPL-G (APP) for truing up for FY 2018-19

Sl No.	Stations	As per actual submitted by TPL				As approved by the Commission			
		Gross generation (MU)	Net Gen (MUs)	Fuel cost (Rs. Crore)	Fuel cost per unit net (Rs./kWh)	Gross generation (MU)	Net Gen (MUs)	Fuel cost (Rs. Crore)	Fuel cost per unit net (Rs./kWh)
1	D Station	905.95	827.80	292.29	3.53	905.95	824.41	297.12	3.59
2	E Station	919.52	844.45	278.27	3.30	919.52	836.77	285.24	3.38
3	F Station	960.19	877.46	293.56	3.35	960.19	873.78	302.34	3.45
	Total	**2785.66**	**2549.71**	**864.11**	**3.39**	**2785.66**	**2534.95**	**884.70**	**3.49**

Detailed computation of the fuel cost for each of the stations has been given in Annexure 1 to 3 at the end of this Chapter.

4.5.1 Variation between actual costs and approved costs

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

The Commission has verified the actual fuel cost submitted by TPL-G (APP) with the annual accounts and has found the same to be in order.

The comparison between the fuel costs of all stations put together, as claimed in the petition for FY 2018-19 and the cost approved for truing up purpose is given in the Table below:

Table4.21: Fuel Cost Approved for truing up for FY 2018-19

(Rs. Crore)

Particulars	As per actual (Claimed)	Approved for 2018-19
Total Fuel Cost	864.11	884.70

4.5.2 Gains and losses in fuel costs due to controllable factors

TPL-G (APP) has arrived at the fuel expenses incurred for FY 2018-19, 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-G (APP) with the fuel expenses, on the basis of the approved operational performance parameters for actual net generation for computation of gains / losses on account of variation in these parameters and approves the gains / losses station-wise, as given in the Table below:

Table 4.22: Approved Gains / (Losses) from Fuel Expenses (due to Controllable Factors) for FY 2018-19

(Rs. Crore)

Sl. No.	Station	Fuel cost arrived at with approved parameters for actual net generation for 2018-19*	Actual fuel cost at actual parameters for 2018-19	Gains / (Losses) due to controllable factors
1	D Station	297.12	292.29	4.83
2	E Station	285.24	278.27	6.97
3	F Station	302.34	293.56	8.78
	Total	**884.70**	**864.11**	**20.59**

**Note: Detailed computation of the fuel cost for each of the stations, with approved parameters for actual net generation, has been given in Annexure 1 to 3 at the end of this Chapter.*

4.5.3 Gains and losses in fuel costs due to uncontrollable factors

The Commission has computed the fuel expenses, so derived by considering the fuel costs as approved in the MYT Order dated 9th June, 2017 vis-à-vis the fuel costs as per actuals, on the basis of the approved operational performance parameters such as station heat rate (SHR), auxiliary consumption, specific fuel oil consumption (SFC) and transit loss of coal for actual net generation for computation of gains / losses on account of variation in the fuel costs and approves the gains / losses station-wise, which is uncontrollable, as given in the Table below:

Table 4.23: Approved Gains / (Losses) from Fuel Expenses (due to Uncontrollable Factors) for FY 2018-19

(Rs. Crore)

Sl. No.	Station	Fuel cost approved in the MYT Order for 2018-19	Actual fuel cost approved with approved parameters for 2018-19	Gains / (Losses) due to uncontrollable factors
1	D Station	255.07	297.12	(42.50)
2	E Station	256.59	285.24	(28.65)
3	F Station	275.24	302.34	(27.10)
	Total	**786.90**	**884.70**	**(97.80)**

4.6 Fixed Charges

4.6.1 Operation and Maintenance (O&M) expenses

TPL-G (APP) has claimed Rs. 138.68 Crore as O&M expenses as against Rs. 169.95 Crore of composite O&M expenses approved for FY 2018-19 in the MYT Order dated 9th June, 2017.

Table 4.24:O&M Expenses of TPL-G (APP) Claimed for FY 2018-19

(Rs Crore)

All figures in Rs. Crore	MYT Order	Actual
Operations and Maintenance Expenses	169.95	138.68

Petitioner's Submission

The Petitioner submitted that the O&M expenses of TPL- G (APP) are lower than the approved.

The Petitioner submitted that for O&M expenses, the variation should be considered as controllable except due to changes in law and the factors beyond the control.

The Petitioner submitted that there has been an increase in Employee Cost owing to change in law resulting in variation in the employee expenses. The Government of India issued a Notification dated 29th March, 2018, amending the Payment of Gratuity Act, 1972, inter alia increasing ceiling of Gratuity to Rs. 20 lakhs from Rs. 10 lakhs. Prior to the amendment of the Payment of Gratuity Act, 1972 vide the Notification dated 29th March 2018; the upper ceiling on gratuity amount payable under the Act was Rs. 10 lakhs. Pursuant to the Amendment the ceiling has been raised to Rs. 20 lakhs. Thus, the employee cost has increased due to the amendment in the Payment of Gratuity Act, 1972. The Petitioner therefore submitted that the said Notification was a change in law in terms of Regulations 2(15) of the GERC MYT Regulations, 2016 and has resulted in the increase in Employee Cost by Rs. 0.48 Crore for FY 2018-19.
In the present petition, the Petitioner has considered only the effect of Change in Law as uncontrollable and the rest as controllable.

Commission's Analysis

TPL-G (APP) has submitted the actual O&M expenses at Rs. 138.68 Crore inclusive of negative impact of Re-measurement of the defined benefit plan of Rs. (1.09) Crore in the truing up for FY 2018-19.

The actual O&M cost as per the annual accounts includes donations of Rs 2.34 Crore, water charges of Rs.15.32 Crore, Corporate Social Responsibility expenses of Rs. 1.60 Crore, expenses pertaining to retired stations (Vatva and C-Station) which have been deducted along with the negative impact of Rs. (1.09) Crore on account of Remeasurement of Defined Benefit Plans as appearing in the Statement of Profit & Loss by TPL-G (APP) to arrive at the O&M expenses claimed in the Petition.

The Commission has ensured Employee Cost and A&G Cost components which were allocated to capital works, repair and other relevant revenue accounts are deducted from the claimed O&M expense. No expense related to Insurance Claim receipt has been claimed by the Petitioner.

On a query of the Commission with regards to the increase in Employee Cost owing to change in law resulting in variation in the employee expenses. TPL-G through their additional submission has submitted the actuarial certificate obtained from the actuaries. The Commission has observed that prior to the amendment of the Payment of Gratuity Act, 1972 vide the Notification dated 29th

March 2018; the upper ceiling on gratuity amount payable under the Act was Rs. 10 lakhs. Pursuant to the Amendment, the ceiling has been raised to Rs. 20 lakhs resulting in the increase of the employee costs. The said Notification is a Change in Law in terms of Regulations 2(15) of the GERC MYT Regulations, 2016 and has resulted in the increase in Employee Cost by Rs. 0.48 Crore for FY 2018-19. The effect of the same has been considered as uncontrollable and the rest of the expenses have been treated as controllable.

The Commission, accordingly, approves the O&M expenses at Rs. 138.68 Crore as per the annual accounts for truing up of FY 2018-19.

Accordingly, Gain/(Losses) on account of O&M expenses in truing up of FY 2018-19 is approved by the Commission as given in the Table below:

Table 4.25: O&M Expenses and Gains / (Losses) Approved in truing up for FY 2018-19

(Rs. Crore)

Particulars	Approved for FY 2018-19 in MYT Order	Approved in truing up for FY 2018-19	Deviation +(-)	Gains / (Losses) due to Controllable factor	Gains / (Losses) due to uncontrollable factor
O & M Expenses	169.95	138.68	31.27	31.75	(0.48)

4.7 Water Charges

Petitioner's Submission

TPL-G (APP) has claimed Rs. 15.32 Crore towards actual water charges in the truing up for FY 2018-19, as against Rs. 12.25 Crore approved in the MYT Order dated 9th June, 2017.

The existing Regulation provides that water charges are to be allowed as per actual. The details are given in the Table below:

Table 4.26: Water Charges Claimed in the truing up by TPL-G (APP) for FY 2018-19

(Rs. Crore)

Sl .No.	Particulars	Approved for FY 2018-19 in MYT Order	Actual claimed in truing up for FY 2018-19
1	Water Charges	12.25	15.32

Commission's Analysis

The GERC (MYT) Regulations, 2016 clearly specify that the water charges shall be allowed separately over and above the O&M Expenses, as per actuals.

The Commission verified the water charges from the annual accounts and approves the water charges at Rs. 15.32 Crore in the truing up.

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

Table 4.27: Gains / (Losses) Approved for Water Charges in the truing up for FY 2018-19

(Rs. Crore)

Sl. No.	Particulars	Approved for 2018-19 in MYT Order	Approved for truing up for 2018-19	Deviation + (-)	Gains / (Losses) due to uncontrollable factor
1	Water Charges	12.25	15.32	(3.07)	(3.07)

4.8 Capital expenditure, Capitalisation and Sources of Funding

TPL-G (APP) has claimed Rs. 33.61 Crore towards actual capital expenditure in the truing up for FY 2018-19, as against Rs. 16.80 Crore approved in the MYT Order for FY 2018-19.

Table 4.28: Capital Expenditure Claimed by TPL-G (APP) For FY 2018-19

(Rs. Crore)

Sl. No.	Particulars	Approved for 2018-19 in MYT Order	Actual
1	Refurbishment of D,E and F station	0.00	0.05
2	Shifting of services from C station	0.00	5.12
3	Boiler Works	0.30	11.76
4	Turbine Works	4.00	2.79
5	Electrical Works	10.00	4.38
6	C&I Works	0.00	1.75
7	CHP Works	0.00	4.22
8	Civil Works	2.50	0.23
9	Others	0.00	1.81
10	Misc.	0.00	1.50
	Total	**16.80**	**33.61**

Petitioner's Submission

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

a) Refurbishment of D, E and F station –. During FY 2018-19, the work of refurbishment of D, E & F station was continued. Expenditure of Rs. 0.05 Crore was incurred towards refurbishment of structural foundation.

b) Shifting of services from C station–. Since C station was being operated in reserve shutdown mode, the work of shifting of critical services from C station was initiated in FY 2017-18. During FY 2018-19, the work of shifting Centec compressor and its associated system along with electrical panels was carried out.

c) Normal Capital Expenditure – TPL-G (APP) incurred the expenditure of Rs. 26.94 Crore against approval of Rs. 16.80 Crore. The major variation is on account of the following:

- **Boiler Works-** Expenditure under this head has been incurred towards deferred projects pertaining to replacement of primary air heater and its associated components at E station due to ageing, replacement of ESP internal components and fan systems at D, E, F station and refurbishment of Dry and Wet ash handling system, and replacement of boiler components of D/E/F station.
- **Turbine Works -** Expenditure has been incurred under this head for replacement of heat exchangers & its associated components in D/E/F station. Further, expenditure is also incurred towards deferred projects pertaining to turbine generator, E station cooling tower internals, and components for pumps. The project of minor overhauling of E & F station turbine has been dropped looking to the performance and behaviour of the turbines.
- **Electrical Works-** Major expenditure envisaged under this head was towards replacement of mills/ fans motors which has been dropped based on actual plant requirement. The actual expenditure incurred under this head is mainly towards upgradation of various electrical systems of D/E/F station.
- **C&I Works-** This expenditure is incurred towards combustion analysers at D/E/F station and replacement of UPS along with upgradation of turbine supervisory system at D station.
- **CHP Works -** Expenditure was incurred towards procurement of new dozers and towards the critical CHP components and equipment of coal handling plant.
- **Civil Works -** Expenditure planned towards chimney refurbishment of D/E/F station has been deferred. The actual expenditure incurred is towards ash silo work along with skimmer, development of diesel garage along with renovation of buildings and roads, and furniture.
- **Others -**. Under this head, expenditure has been incurred towards new Bore well, fire extinguishers, condition monitoring equipments like vibration analyser and ultrasonic flow meter etc.

d) Misc. Capital Expenditure – TPL G (APP) incurred the expenditure of Rs. 1.50 Crore. The majority of the expenditure has been incurred towards towards audio visual equipment at training centre, procurement of digital X-ray equipment for Occupational Health Unit, etc.

TPL-G (APP) has claimed actual capitalisation of Rs. 28.65 Crore in the truing up for FY 2018-19, as against Rs. 12.56 Crore approved in the MYT Order for FY 2018-19, as shown in the Table below:

Table 4.29: Capitalisation and Sources of Funding Claimed in truing up for FY 2018-19

(Rs. Crore)

All figures in Rs. Crore	Approved in the MYT Order	Actual submitted by the Petitioner
Opening GFA	1,107.46	1,146.04
Addition to GFA	12.56	28.65
Deletion to GFA	-	82.34
Closing GFA	1,120.02	1,092.35
Capitalization considered for Debt and Equity	12.56	28.65
Normative Debt @ 70%	8.79	20.06
Normative Equity @ 30%	3.77	8.60

Commission's Analysis

The Commission sought the details of scheme-wise breakup of actual capitalisation of Rs. 28.65 Crore with details of Opening CWIP as on 1st April, 2018 and Closing CWIP as on 31st March, 2019, which TPL-G (APP) provided. The detailed explanation of the major capital expenditure incurred by TPL-G (APP) is provided below:

a) Shifting of services from C station–. The retirement of C station had been planned in year FY 2018-19 and therefore it was required to shift all common services which are provided from C station to other stations. The shifting work has been started from FY 2017-18. During FY 2018-19 expenditure of Rs. 5.12 Cr has been incurred for shifting Centec compressor and its associated system along with electrical panels.

b) Normal Capital Expenditure – TPL-G (APP) incurred the expenditure of Rs. 26.94 Crore against approval of Rs. 16.80 Crore. Majority of the capex is deferred from earlier years based on OEM survey. The further details of the actual expenditure incurred under major heads is as under:

- ***Boiler Works-*** TPL-G (APP) has incurred a capital expenditure of Rs. 11.76 Cr. towards Boiler Works. Details of expenditure incurred is as under:

Air pre heater: Expenditure of Rs.5.68 Cr. incurred for replacement of Primary air heater and its associated components due to ageing effect in E stn.

ESP overhauling: Expenditure of Rs.1.19 Cr. incurred for replacement of ESP internal components based on OEM survey report in E & F stn.

Ash Handling System refurbishment: Expenditure of Rs. 0.12 Cr. has been incurred towards refurbishment of ash handling system at E stn and Rs. 1.07 Cr. has been incurred towards replacement of associated components of ash handling system due to ageing effect in D/E/F stn.

Refurbishment of Dry and Wet ash handling system of DEF station with piping based on detailed assessment: Expenditure of Rs. 0.78 Cr. has been incurred towards refurbishment of dry and wet ash system with piping at D/E & F stn.

Fan System: Expenditure of Rs.1.29 Cr. incurred for replacement of Fans components due to ageing effect in D/E/F stn.

Pressure Part Replacement: Expenditure of Rs. 0.41 Cr. incurred towards replacement of pressure parts of boiler due to ageing effect in D/E/F stn.

Boiler components: Expenditure of Rs.0.30 Cr. incurred for replacement of boiler components due to ageing effect in D/E/F stn.

Milling System: Expenditure of Rs.0.86 Cr. incurred for replacement of mill components due to ageing effect in E & F stn.

Lifting tools and tackles: Expenditure of Rs.0.07 Cr. incurred for replacement of EOT Crane due to ageing effect in E stn.

- ***Electrical Works-*** TPL-G (APP) has incurred a capital expenditure of Rs. 4.38 Cr. towards Electrical Works. Details of expenditure incurred is as under:

  Up Gradation of E stn CTID MCC: Expenditure of Rs. 1.39 Cr. incurred for up gradation of CTID MCC due to ageing effect & to avoid any problem in plant operation.

  Electrical Testing Laboratory: Expenditure of Rs. 0.48 Cr. incurred for procurement of new advanced electrical testing instruments for better accuracy of plant electrical accessories & reliability.

  Up gradation of SBI Electrical system: Expenditure of Rs. 0.13 Cr. incurred towards upgradation of plant area lighting as per recommendation for area lighting. Expenditure of Rs. 1.88 Cr. has been incurred towards upgradation of electrical system based on requirements and due to ageing effect in D/E/F stn.

  Energy Saving measures: Expenditure of Rs. 0.26 Cr. incurred towards replacement of conventional type lights with energy efficient lights in D/E/F & CHP area.

New / Spare Breakers: Expenditure of Rs. 0.09 Cr. incurred towards replacement of HT breakers & HT panels in D/E/F stn.

Replacement of Motors, XLPE cables for the Motors and Equipments for energy saving measures: Expenditure of Rs. 0.07 Cr. incurred towards execution of deferred projects of replacement of motors & XLPE cables for the motors in D/E/F stn.

Procurement of ABT meter: Expenditure of Rs. 0.08 Cr. incurred for procurement & installation of new ABT meter as per circular received from SLDC. It is incurred to fulfil the compliance requirement.

- ***CHP Works -*** TPL-G (APP) has incurred a capital expenditure of Rs. 4.22 Cr. towards CHP Works. Details of expenditure incurred is as under:

  Dozer Spares: Expenditure of Rs. 1.41 Cr. incurred for procurement of Critical spares of dozer for coal stacking process.

  New Dozer Procurement: Upon completion of life of existing dozers, expenditure of Rs. 2.12 Cr. incurred for procurement of new dozers.

  Coal handling plant components: Expenditure of Rs. 0.28 Cr. incurred towards purchase of Critical components of CHP spares.

  Procurement of Fire Tender Vehicle: Expenditure of Rs..0.29 Cr. incurred for procurement of new fire tender and truck chassis for safety purpose.

  Tools & Tackles CHP: Expenditure of Rs. 0.11 Cr. incurred for procurement of suitable tools and tackles to enhance work quality and safety.

The Commission observed that there is a significant variation in the value of Opening GFA in the annual accounts and Petition. TPL-G (APP) stated that the Fixed Asset Schedule of annual accounts is on NFA basis as per IND AS. However, TPL-G (APP) also submitted fixed asset schedule on GFA basis as per the GERC (MYT) Regulations, 2016.

The Commission observed that the actual capital expenditure was much higher than the capital expenditure approved in the MYT Order for FY 2018-19. However, the majority of the capital expenditure incurred in FY 2018-19 is against schemes that were deferred on account of delay in associated components. Further, TPL-G (APP) has decapitalised the assets to the extent of Rs. 82.34 Crore during FY 2018-19. Regulation 38.1 of GERC (MYT) Regulations, 2016 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-G (APP) vide letter dated 4th February, 2020 submitted the certificate from the Statutory Auditor. The certificate of the Statutory Auditor mentions that out of total retired assets value of Rs. 8234.30 Lakh, the assets of Rs. 7164.14 Lakh was capitalised prior to 01.04.2007 and the assets of Rs. 1070.16 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 31.03.2019, which was received prior to 31.03.2007.

The Commission approves the capitalisation and sources of funding, as shown in the Table below in the truing up for FY 2018-19.

Table 4.30: Approved Capitalisation and Sources of Funding in truing up for FY 2018-19

(Rs. Crore)

All figures in Rs. Crore		Actual Claimed	Approved in Truing up for FY 2018-19
Opening GFA	(a)	1,146.04	1,146.04
Addition to GFA	(b)	28.65	28.65
Deletion to GFA	(c)	82.34	82.34
Closing GFA	(d)=(a)+(b)-(c)	1,092.35	1,092.35
Capitalization considered for Debt and Equity	(e)=(b)	28.65	28.65
Normative Debt @ 70%	(f)=(e)*70%	20.06	20.06
Normative Equity @ 30%	(g)=(e)*30%	8.60	8.60

4.8.1 Impact of Consequential Order in Petition No.1551 of 2015

Commission has issued a consequential order on 19.08.2019 in Petition No. 1551 of 2015 (Dated. 31.03.2016) in light of the judgment of the Hon'ble Appellate Tribunal for Electricity dated 09.05.2019 in Appeal No. 257 of 2016. In the said order the Revised Interest Expenses approved in truing up for FY 2014-15 is shown below:

Table 4.31: Revised Interest Expenses approved in Consequential order for truing up of FY 2014-15

(Rs.Crore)

Sl. No.	Particulars	Approved in True-up Order dated 31.03.2016	Approved in Consequential order dated 19.08.2019
1	Opening Loan	174.86	234.33
2	New Loan during the year	29.23	20.14
3	Repayment During the Year	47.78	47.78
4	Closing Loan	156.31	206.69
5	Average Loan	165.58	220.51
6	Rate of Interest	11.76%	11.76%
7	Interest	19.47	25.93
8	Other Borrowing Costs	0.06	0.06
9	**Total Interest and Finance Charges**	**19.53**	**25.99**

There is an impact of Rs.6.46 Crore due to revision in Interest Expenses the same shall be considered for Truing up of FY 2018-19. Also, The revision in the opening balance of loan and new loan addition during the year approved in the consequential order for FY 2014-15 will have subsequent impacts for FY 2015-16 to FY 2017-18. In line with the same, the revised interest expenses for FY 2015-16 to FY 2017-18 are tabulated below:

Table 4.32: Revised Interest Expenses as per Consequential order for FY 2015-16 to FY 2017-18

(Rs.Crores)

Particulars	FY 15-16		FY 16-17		FY 17-18	
	True-up Order for FY 15-16	In accordance with Commission's order dated 19/08/19	True-up Order for FY 16-17	In accordance with Commission's order dated 19/08/19	True-up Order for FY 17-18	In accordance with Commissions order dated 19/08/2019
Opening loan balance	156.31	206.69	115.51	165.88	73.78	124.16
New Borrowings	8.16	8.16	7.90	7.90	(2.21)	(2.21)
Repayments	48.96	48.96	49.62	49.62	47.74	47.74
Closing Loan Balance	115.51	165.88	73.78	124.16	23.83	74.20
Rate of Interest	11.74%	11.74%	11.26%	11.26%	8.55%	8.55%
Interest Expense	15.96	21.87	10.66	16.33	4.17	8.48
Other Borrowing Cost	1.43	1.43	0.13	0.13	0.28	0.28
Total Interest Expense	17.39	23.30	10.79	16.46	4.45	8.76
Differential Impact		5.91		5.67		4.31

In addition to this, there is a differential impact of Rs.0.74 Crore on the Incentive amount claimed for FY 2015-16. Thus the total impact comes out to be Rs.23.09 Crore from FY 2014-15 to FY 2017-18. The said impact is considered by the Commission while truing up of ARR of TPL-D (A) and TPL-D (S) distribution business.

4.8.2 Interest expenses

TPL-G (APP) has claimed a sum of Rs. 5.07 Crore towards actual interest expenses in the truing up for FY 2018-19, as against Rs. 3.44 Crore approved in the MYT Order for FY 2018-19, as detailed in the Table below:

Table 4.33: Total Interest Expenses Claimed in truing up for TPL-G (APP) for FY 2018-19

(Rs. Crore)

SI .No.	Particulars	Approved for FY 2018-19 in MYT Order	Actual claimed in truing up for FY 2018-19
1	Interest Expenses	3.44	5.07

Petitioner's Submission

TPL-G (APP) has submitted that the GERC (MYT) Regulations, 2016 provide for the calculation of interest expenses on normative basis by considering the amount of depreciation of assets as the amount of repayment.

The Petitioner has considered the interest expenses as per the GERC (MYT) Regulations, 2016 on normative basis. The opening balance of loan has been adjusted to factor the outstanding balance of the loan corresponding to retirement of the assets read with the Hon'ble Commission's order dated 19th August, 2019.The Petitioner has calculated the interest expenses by applying the Weighted Average Rate of interest of the actual loan portfolio during the year on the loan component while repayment has been considered equal to the depreciation for the year.

The Petitioner submitted that the variation in interest expenses compared to the approved expenses is to be treated as uncontrollable as it depends on the quantum of actual capitalization and variation in the interest rates.

The interest expense claimed for FY 2018-19 is shown in the table below.

Table 4.34: Interest Claimed in the truing up for FY 2018-19

(Rs. Crore)

SI No.	Particulars	Actual
1	Capitalization During the Year	28.65
2	Normative Debt @ 70%	20.06
3	Opening Balance	66.71
4	New Borrowings	20.06
5	Repayments	45.59
6	Closing Balance	41.18
7	Rate of Interest	8.70%
8	Interest Expenses	4.69
9	Other Borrowings Cost	0.38
10	**Total Interest Expenditure**	**5.07**

Commission's Analysis

Commission has considered opening loan balance as on 01.04.2018 equal to the revised closing loan balance as detailed above of FY 2017-18. Since, the assets are withdrawn w.e.f. 01.04.2018, the Commission has reduced the opening loan for FY 2018-19 to the extent of debt portion (70%) of the value of the assets of Rs. 1070.16 Lakh which was capitalised from 01.04.2007 onwards. The additional loan considered by the Commission is 70% of the value of assets addition and repayment has been considered equal to the depreciation for the year.

As per first proviso of Regulation 38.5 of the GERC (MYT) Regulations, 2016, at the time of truing up, the weighted average rate of interest calculated on the basis of the actual loan portfolio during the year applicable to the Generating Company shall be considered as the rate of interest. As per aforesaid Regulation, the Commission has worked out interest rate of 8.70% based on information such as lender-wise loan portfolio with periodical variation in interest rate, principal repayment and tenure during FY 2018-19 as received from TPL-G. The other borrowing cost is Rs. 0.38 Crore as per the annual accounts and considered in this truing up for FY 2018-19.

Accordingly, based on the actual capitalisation achieved by TPL-G (APP) during FY 2018-19 and the approved normative borrowings considering the interest rate of 8.70%, the Commission has computed the interest, as detailed in the Table below:

Table 4.35: Interest Approved by the Commission in the truing up for FY 2018-19

(Rs. Crore)

Sl. No.	Particulars	Approved in truing up for 2018-19
1	Opening Loan	66.71
2	New Loan during the year	20.06
3	Repayment During the Year	45.59
4	Closing Loan	41.18
5	Average Loan	53.95
6	Rate of Interest	8.70%
7	Interest	4.69
8	Other Borrowing Costs	0.38
9	**Total Interest and Finance Charges**	**5.07**

The Commission, accordingly, approves the interest and finance charges of Rs. 5.07 Crore in the truing up for FY 2018-19.

With regard to the computation of gains / losses, Regulation 22.2 of the GERC (MYT) Regulations, 2016 provides as under:

"Regulation 22.2 of the GERC (MYT) Regulations, 2016 considers variations in capitalization on account of time and/or cost overruns/ efficiencies in the implementation of a 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 also 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 2018-19, as detailed in the Table below:

Table 4.36: Gains / (Losses) Approved in the truing up for FY 2018-19

(Rs. Crore)

Particulars	Approved for 2018-19 in MYT Order	Actual claimed in truing up for 2018-19	Approved in truing up for 2018-19	Deviation +(-)	Gains / (Losses) due to uncontrollable factor
Interest and Finance Charges	3.44	5.07	5.07	(1.63)	(1.63)

4.8.3 Interest on Working Capital

The interest on working capital is arrived at by applying interest rate of 10.89% on the working capital requirement computed as per the GERC (MYT) Regulations, 2016.

Petitioner's Submission

TPL-G (APP) has claimed a sum of Rs. 14.96 Crore towards interest on working capital in the truing up of FY 2018-19, as against Rs. 14.35 Crore approved in the MYT Order dated 9th June, 2017 for FY 2018-19, as detailed in the Table below:

Table 4.37: Interest on Working Capital of TPL-G (APP) Claimed for FY 2018-19

(Rs. Crore)

Sl. No.	Particulars	Approved for 2018-19 in MYT Order	Actual claimed in truing up for 2018-19
1	Coal for 1.5 Month	95.99	112.75
2	Secondary Fuel for 2 months	1.39	1.62
3	Gas for 1 Month	-	-
4	O&M Expenses for 1 Month	14.16	11.56
5	1% of GFA for Maintenance Spares	11.07	11.46
6	Receivables for 1 Month	-	-
7	Normative Working Capital	122.61	137.39
8	Interest Rate	11.70%	10.89%
9	Interest on Working Capital	**14.35**	**14.96**

The Petitioner further submitted that the variation in working capital requirement is primarily on account of variation in actual fuel costs and O&M expenses. Further, there is a variation in interest rate applicable on working capital requirement.

Commission's Analysis

The Commission has examined the computation of normative working capital and interest thereon under the GERC (MYT) Regulations, 2016.

Accordingly, the Commission has worked out the working capital requirement considering Normative Target Availability of 85% for all the stations (D, E & F) of TPL-G (APP). This is as per Regulation 53.1 of the GERC (MYT) Regulations, 2016.

The working capital comprises of 1.5-month coal cost, 2 months' secondary fuel cost,1-month O&M expenses, maintenance spares at 1% of historical cost and receivables equivalent to 1 month.

With regard to rate of interest on working capital, the Commission vide notification No. 7 of 2016 dated 2nd December, 2016 has amended its Regulation 40.1 (d) of the GERC (MYT) Regulations, 2016 as given under:

"Interest on working capital shall be allowed at a rate equal to the State Bank Base Rate (SBBR) / 1 year State Bank of India (SBI) Marginal Cost of Funds Based Lending Rate (MCLR) / any replacement thereof by SBI for the time being in effect applicable for 1 year period, as may be applicable as on 1st April of the financial year in which the Petition is filed plus 250 basis points:

Provided that at the time of truing up for any year, interest on working capital shall be allowed at a rate equal to the weighted average State Bank Base Rate (SBBR) / 1 year State Bank of India (SBI) Marginal Cost of Funds Based Lending Rate(MCLR) / any replacement thereof by SBI for *the time being in effect applicable for 1 year period, as may be applicable prevailing during the financial year plus 250 basis points."*

In line with the above proviso to Regulation 40.1 (d), the Commission has considered the weighted average of 1 year State Bank of India (SBI) Marginal Cost of Funds Based Lending Rate (MCLR) of 8.39% prevailing during the financial year 2018-19 plus 250 basis points. Accordingly, the rate of interest on working capital has been worked out to be 10.89%.

Based on the O&M expenses and other expenses now approved in the Truing up, the working capital and interest thereon calculated at 10.89%, are detailed in the Table below:

Table 4.38: Interest on Working Capital Approved in the truing up for FY 2018-19

(Rs. Crore)

Sl. No.	Particulars	Actual Claimed	Approved in truing up for 2018-19
1	Coal for 1.5 Month	112.75	109.11
2	Secondary Fuel for 2 months	1.62	1.57
3	O&M Expenses for 1 Month	11.56	11.56
4	1% of GFA for Maintenance Spares	11.46	11.46
5	Receivables for 1 Months	-	
6	Normative Working Capital	137.39	133.70
7	Interest Rate	10.89%	10.89%
8	**Interest on Working Capital**	**14.96**	**14.56**

The Commission, accordingly, approves the interest on working capital at Rs. 14.56 Crore in the truing up for FY 2018-19.

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 2018-19, as detailed in the Table below:

Table 4.39: Gains / (Losses) in Interest on Working Capital Approved in the truing up for FY 2018-19

(Rs. Crore)

Particulars	Approved for 2018-19 in MYT Order	Approved in truing up for 2018-19	Deviation +(-)	Gains /(Losses) due to Controllable Factors	Gains /(Losses) due to Uncontrollable Factors
Interest on Working Capital	14.35	14.56	(0.21)		(0.21)

4.8.4 Depreciation

TPL-G (APP) has claimed a sum of Rs. 45.59 Crore towards depreciation in the truing up for FY 2018-19, as against Rs. 45.03 Crore approved in the MYT Order dated 9th June, 2017, as detailed in the Table below:

Table 4.40: Depreciation of TPL-G (APP) Claimed for FY 2018-19

(Rs. Crore)

Particulars	Approved for FY 2018-19 in MYT Order	Actual claimed in truing up for FY 2018-19
Depreciation	45.03	45.59

Petitioner's Submission

TPL-G (APP) 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 the rates specified in the GERC Regulations.

Commission's Analysis

The details of opening balance of assets as on 1st April, 2018, and addition and deduction to the Gross Block during FY 2018-19 and the depreciation on the assets, classification wise, are given in Form 5 of the petition. The opening and closing balances of assets are as per the annual accounts for FY 2018-19 after adjustment of Ind. AS. On a query of the Commission regarding the unabsorbed depreciation pertaining to retired 'C' station, TPL-G (APP) submitted that the same has been treated in FY 2017-18 as impairment loss of Rs.14.07 Crore so no such impact has been claimed in FY 2018-19.

The Commission, accordingly, approves the depreciation at Rs. 45.59 Crore in the truing up for FY 2018-19.

The Commission, accordingly, approves the Gains / (Losses) on account of depreciation in the truing up for FY 2018-19, as detailed in the Table below:

Table 4.41: Gains / (Losses) due to Depreciation Approved in the truing up for FY 2018-19

(Rs. Crore)

Particulars	Approved for 2018-19 in MYT Order	Approved in truing up for 2018-19	Deviation +(-)	Gains / (Losses) due to Uncontrollable Factors
Depreciation	45.03	45.59	(0.56)	(0.56)

4.8.5 Return on Equity

TPL-G (APP) has claimed a sum of Rs. 57.46 Crore towards return on equity in the truing up for FY 2018-19, as against Rs. 58.96 Crore approved in the MYT Order dated 9^{th} June, 2017, as detailed in the Table below:

Table 4.42: Return on Equity of TPL-G (APP) Claimed for FY 2018-19

(Rs. Crore)

Particulars	Approved for 2018-19 in MYT Order	Actual claimed in truing up for 2018-19
Opening Equity	419.24	406.11
Equity Addition	3.77	8.60
Reduction in Equity	-	-
Closing Equity	423.01	414.70
Average Equity	421.12	410.41
Rate of Return on Equity	14%	14%
Return on Equity	**58.96**	**57.46**

Petitioner's Submission

TPL-G (APP) has submitted that the Opening balance of equity is adjusted to factor the retirement of the assets, whereas closing balance of equity has been arrived at considering additional equity of 30% of the capitalisation during the year.

TPL-G (APP) 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 2018-19.

The closing balance of equity has been arrived at considering additional equity of 30% of the net capitalisation during the year.

Commission's Analysis

Commission has considered opening equity as on 01.04.2018 equal to closing equity of FY 2017-18 as approved in the truing up order dated 24th April, 2019. TPL-G (APP) has de-capitalised assets of Rs 82.34 Crore during the year and the Commission has accordingly reduced the equity portion corresponding to such deletion in the opening equity. The additional equity considered by the Commission is 30% of the value of net asset addition.

The Commission, accordingly, approves the return on equity of Rs. 57.46 Crore in the truing up for FY 2018-19, as detailed in the Table below:

Table 4.43: Return on Equity approved in the truing up for FY 2018-19

(Rs. Crore)

Particulars	Actual Claimed in truing up for 2018-19	Approved in truing up for 2018-19
Opening Equity	406.11	406.11
Equity Addition	8.60	8.60
Reduction in Equity	-	-
Closing Equity	414.70	414.70
Average Equity	410.41	410.41
Rate of Return on Equity	14%	14%
Return on Equity	**57.46**	**57.46**

The Commission, accordingly, approves the Gains / (Losses) on account of return on equity in the truing up for FY 2018-19, as detailed below:

Table 4.44: Return on Equity and Gains / (Losses) Approved in the truing up for FY 2018-19

(Rs. Crore)

Particulars	Approved for 2018-19 in MYT Order	Approved in truing up for 2018-19	Deviation +(-)	Gains / (Losses) due to Uncontrollable Factors
Return on Equity	58.96	57.46	1.50	1.50

4.8.6 Income Tax

TPL-G (APP) has claimed a sum of Rs. 23.84 Crore towards income tax in the truing up for FY

2018-19, as against Rs. 15.34 Crore approved in the MYT Order dated 9th June, 2017 for FY 2018-19, as detailed in the Table below:

Table 4.45: Income Tax Claimed for TPL-G (APP) for FY 2018-19

(Rs. Crore)

Particulars	Approved for FY 2018-19 in MYT Order	Actual claimed in truing up for FY 2018-19
Income Tax	15.34	23.84

Petitioner's Submission

TPL-G (APP) has submitted that it has claimed the income tax of Rs. 23.84 Crore for FY 2018-19 considering the total tax paid for TPL as a whole and the ratio of PBT of TPL-(G) (APP) and PBT of the company as a whole as per the annual accounts.

Commission's Analysis

The Commission had asked TPL-G (APP) to furnish the details of segregation of income tax paid by TPL-G (APP) in respect of TPL-G (APP) Ahmedabad along with copies of challans of income tax paid. In its reply, TPL-G submitted that being a single corporate entity, income tax is paid for the company as a whole. TPL 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 copies of challans of income tax paid.

The Commission verified the PBT figures from the annual accounts for FY 2018-19. The Petitioner has shown a PBT of Rs. 112.05 Crore net of Remeasurement of Defined Benefit Plans. The PBT as per standalone financial statement of TPL net of Remeasurement of Defined Benefit Plans is Rs. 1238.81 Crore and the total current tax paid is Rs 274.06 Crore.

TPL-G (APP) submitted that the computation of Income Tax has been done in line with the approach adopted by the Commission in the previous Order, viz., the Tax has been computed by applying the MAT rate of 21.5488% as against the actual Tax rate of 22.12% for the Company as a whole, and the Tax credit of Rs. 3.38 crore for the Company as a whole has been considered proportionately for TPL-G (APP), TPL-D (A),TPL-D (S) and TPL-D (D). Accordingly, TPL-G submitted the computation of Income Tax of Rs. 23.84 crore for TPL-G (APP).

The Commission, accordingly, approves the income tax at Rs. 23.84 Crore in the truing up for FY 2018-19.

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 2018-

19, as detailed in the Table below:

Table 4.46: Income Tax and Gains / (Losses) due to Income Tax Approved in the truing up for FY 2018-19

(Rs. Crore)

Particulars	Approved for 2018-19 in MYT Order	Approved in truing up for 2018-19	Deviation +(-)	Gains /(Losses) due to Controllable Factors	Gains /(Losses) due to Uncontrollable Factors
Income Tax	15.34	23.84	(8.50)		(8.50)

4.8.7 Non-Tariff Income

Petitioner's submission

TPL-G (APP) has submitted that the actual Non-Tariff income was Rs. 16.98 Crore in the truing up for FY 2018-19, as against Rs. 17.43 Crore approved in the MYT Order dated 9th June, 2017 as shown in the Table below:

Table 4.47: Non-Tariff Income for TPL-G (APP) claimed for FY 2018-19

(Rs. Crore)

Particulars	Approved for 2018-19 in MYT Order	Actual claimed in truing up for 2018-19
Non-Tariff Income	17.43	16.98

Commission's Analysis

The non-tariff income of TPL-G (APP) is Rs. 17.28 Crore as per the annual accounts but the Petitioner has excluded income pertaining to retired stations of Rs. 0.30 Crore to arrive at claimed figure of Rs. 16.98 Crore. No insurance claim receipt has been claimed by the Petitioner.

The Commission, accordingly, approves the Non-Tariff Income at Rs.16.98 Crore by excluding Rs. 0.30 Crore pertaining to retired stations in the truing up for FY 2018-19.

The deviation in non-tariff income is at Rs. 0.45 Crore, which is a loss is considered as uncontrollable factor.

The Commission, accordingly, approves the gains / (losses) on account of non-tariff income in the truing up for FY 2018-19 as detailed below.

Table 4.48: Non-Tariff Income and gains/(losses) approved in the truing up for FY 2018-19

(Rs. Crore)

Particulars	Approved for 2018-19 in MYT Order	Approved in truing up for 2018-19	Deviation +(-)	Gains /(Losses) due to Uncontrollable Factors
Non-Tariff Income	17.43	16.98	(0.45)	(0.45)

4.8.8 Incentive

Petitioner's Submission

As per the GERC (MYT) Regulations, 2016, the incentive payable to a Thermal Generating Station shall be calculated in accordance with the actual PLF achieved against the normative PLF of 85%. Accordingly, The Petitioner has claimed the incentive of Rs 6.73 Crore as follows:

Table 4.49: Incentive claimed by TPL-G (APP) for FY 2018-19

Particulars	
Scheduled Generation (MU)	2,587.41
Net Generation at 85% PLF (MU)	2,452.86
Eligible generation for incentive (MU)	134.55
Incentive (Rs.Crore)	6.73

Commission's Analysis

GERC MYT Regulations, 2016 provide for payment of incentive to a thermal generating station, the relevant clause is reproduced below:

> *"60. Incentive to a thermal generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in Regulation 53.2."*

Since April 1, 2017 the Commission directed TPL-G (APP) to schedule station wise generation through SLDC in accordance with the ABT Order of the Commission and amendments thereof from time to time and it shall obtain certificate of annual PLF for each station from SLDC and submit the same to the Commission along with truing up Petition.

The regulations provide for allowing purchase of power on the Merit Order Dispatch principles. Accordingly all of the state's power gets scheduled according to the variable charge which is inclusive of the incentive (i.e. 0.50 Rs/kWh) earned for generation above the Normative PLF of 85% provided it gets schedule from the buyer. In case of TPL-G (APP), being an embedded generating station, owned by TPL, the power gets scheduled due to the inherent gap of TPL- D and TPL-S in their long term tie up and the corresponding demand, thereby eliminating the possibility of Merit Order of Dispatch. For TPL-G (APP), the average cost per unit generation in year FY 2018-19 is not so attractive in comparison to sources like Solar purchased through competitive bidding. Thus, TPL-G (APP) is getting the benefits of Incentive for higher than normative generation by eliminating Merit Order Dispatch. In past, the Commission has already indicated for exploring other sources including solar by inviting bids so that cost of purchase of its own distribution business go down and benefit should go to State's consumers.

Moreover, the mechanism of sharing of gains and losses is intended to share the benefits of better performance of the Utility as well as the impact of poor performance of the Utility with the consumers, while at the same time ensuring that the Utility has enough incentive to improve its operational efficiency. The gains realised by TPL-G (APP) by achieving better operational parameters than normative are already considered while determining the trued-up ARR.

Accordingly, as per the aforesaid discussions the Commission strives to maintain a balance between the interest of the generators and the reasonableness of the cost of power being supplied to consumers. Thus as per Regulations 7 and 12 of the GERC MYT Regulations ,the Commission feels fit in not approving any incentive for TPL-G (APP) for FY 2018-19.

Accordingly, Commission does not allow the incentive claimed by the Petitioner of Rs.6.73 Crore for Truing up of FY 2018-19.

4.8.9 **Revised ARR for FY 2018-19**

The Commission has reviewed the performance of TPL-G (APP) under Regulation 22 of the GERC (MYT) Regulations, 2016, with reference to the annual accounts for FY 2018-19.

Accordingly, the Commission has computed the sharing of gains and losses for FY 2018-19, based on the truing up for each of the components discussed in the above paragraphs. The ARR approved in the MYT Order dated 9thJune, 2017, as claimed by TPL-G (APP) and as approved in truing up for FY 2018-19, along with sharing of gains / losses computed in accordance with the GERC (MYT) Regulations, 2016, is given in the Table below:

Table 4.50: ARR Approved in truing up for FY 2018-19

(Rs Crore)

Sl. No.	Annual Revenue	Approved for 2018-19 in MYT Order	Claimed in truing up for 2018-19	Approved in truing up for 2018-19	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	786.90	864.11	884.70	(77.21)	20.59	(97.80)
2	O & M Expenses	169.95	138.68	138.68	31.27	31.75	(0.48)
3	Water Charges	12.25	15.32	15.32	(3.07)		(3.07)
4	Depreciation	45.03	45.59	45.59	(0.56)		(0.56)
5	Interest on Loan	3.44	5.07	5.07	(1.63)		(1.63)
6	Interest on Working Capital	14.35	14.96	14.56	(0.21)		(0.21)
7	Return on Equity	58.96	57.46	57.46	1.50		1.50
8	Income Tax	15.34	23.84	23.84	(8.50)		(8.50)
9	Incentive	0.00	6.73	0.00	0.00		0.00
11	Less: Non-Tariff Income	17.43	16.98	16.98	0.45		0.45
12	Aggregate Revenue Requirement	**1088.78**	**1154.78**	**1168.24**	**(79.45)**	**52.34**	**(111.20)**

4.8.10 Sharing of Gains / Losses for FY 2018-19

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

The relevant Regulations are extracted below:

Regulation 23. Mechanism for pass-through of gains or losses, on account of uncontrollable factors

"23.1 The approved aggregate gain or loss to the Generating Company or Transmission Licensee or SLDC 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 SLDC or Distribution Licensee over such period as may be specified in the Order of the Commission passed under these Regulations.

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

23.3 Nothing contained in this Regulation 23 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 24. Mechanism for sharing of gains or losses on account of controllable factors

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

(a) One-third of the amount of such gain shall be passed on as a rebate in tariffs over such period as may be stipulated in the Order of the Commission under Regulation 21.6;

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

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

(a) One-third of the amount of such loss may be passed on as an additional charge in tariffs over such period as may be stipulated in the Order of the Commission under Regulation 21.6; and

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

The trued up ARR claimed by TPL-G (APP) for FY 2018-19 is given in the Table below:

Table 4.51: Revised ARR claimed by TPL-G (APP) for FY 2018-19

(Rs. Crore)

Particulars		2018-19
ARR as per MYT Order	(a)	1,088.78
Gains/(Losses) due to Uncontrollable Factors	(b)	(118.34)
Gains/(Losses) due to Controllable Factors	(c)	52.34
Pass through as tariff	d=(c/3+b)	(100.89)
ARR True-up	e=a - d	**1,189.67**

Petitioner's Submission

Petitioner has submitted that the Hon'ble Appellate Tribunal for Electricity (APTEL) has passed its judgment in Appeal no. 257 of 2016. Pursuant thereto and in compliance therewith, the Commission has issued the consequential order dated 19th August, 2019 for implementation of the said judgment. Accordingly, the Petitioner requests the Hon'ble Commission to allow recovery of interest on loan of Rs. 23.09 Crore for FY 2014-15 to FY 2017-18 from TPL-D (A) and TPL-D (S) in addition to above trued up ARR of FY 2018-19, which has arisen due to the Commission passing consequential orders upon the subject dispensation by the Hon'ble APTEL.

The Petitioner has further submitted that there has been an increase in the expense as regards the tariff item, Employee Cost pursuant to the amendment of the Payment of Gratuity Act, 1872, vide Notification dated 29th March, 2018; by Government of India. The amendment resulted in increasing ceiling of Gratuity to Rs. 20 lakhs from Rs. 10 lakhs. The said Notification is a Change in Law in terms of Regulations 2(15) of the GERC MYT Regulations, 2016 and has resulted in the increase in Employee Cost by Rs. 5.86 Crore for FY 2017-18. Accordingly, the Petitioner requests the Commission to allow balance recovery of Rs. 5.86 Crore from TPL-D (A) and TPL-D (S) in addition to above trued up ARR of FY 2018-19.

Commission's Analysis

The Commission has issued a consequential order on 19.08.2019 in Petition No. 1551 of 2015 (dated. 31.03.2016) in light of the judgment of the Hon'ble Appellate Tribunal for Electricity dated 09.05.2019 in Appeal No. 257 of 2016. In the preceding section the Commission has derived the impact of the Consequential order from FY 2014-15 to FY 2018-19 which comes out to be Rs.23.09 Crore. The effect of the same is considered while truing-up of TPL-D (A) and TPL-D (S).

With regards to the increase in Employee Cost owing to change in law resulting in variation in the employee expenses. TPL-G (APP) through their additional submission has submitted the actuarial certificate obtained from the actuaries. The Commission has observed that prior to the amendment of the Payment of Gratuity Act, 1972 vide the Notification dated 29th March 2018; the upper ceiling on gratuity amount payable under the Act was Rs. 10 lakhs. Pursuant to the Amendment the ceiling has been raised to Rs. 20 lakhs resulting in the increase of the employee costs. The Commission has verified the said amount of Rs.5.86 Crore from the actuarial certificate submitted by TPL-G and considers the same to be a change in law in terms of Regulations 2(15) of the GERC MYT Regulations, 2016. The effect of the same is considered while truing-up of TPL-D (A) and TPL-D (S).

The ARR approved for TPL-G (APP) in the truing up for FY 2018-19, after sharing of gains/(losses), is given in the Table below:

Table 4.52: Revised ARR approved for TPL-G (APP) for 2018-19

(Rs. Crore)

Sl. No.	Particulars	Legend	Amount
1.	ARR as per MYT Order	a	1088.78
2.	Gains/(Losses) due to uncontrollable Factors	b	(111.20)
3.	Gains/(Losses) due to controllable Factor	c	52.34
4.	Pass through as Tariff	d=c/3+b	(93.75)
5.	**ARR True-up**	**e=a-d**	1182.53

The Commission approves the total ARR of Rs. 1182.53 Crore of TPL-G (APP) for FY 2018-19 and the same is considered as the actual cost of power purchased from TPL-G (APP) for FY 2018-19 in the ARR of TPL Distribution.

5 Determination of ARR for FY 2020-21

5.1 Introduction

This Chapter deals with the determination of ARR for FY 2020-21 for TPL-G (APP) Ahmedabad Power Plant.

The Commission has considered the ARR approved in the MTR Order dated 24th April, 2019 for FY 2020-21.

5.2 Approved ARR for FY 2020-21

Based on above approach, the Table below summarises the Annual Revenue Requirement, as approved by the Commission for FY 2020-21 in the MTR Order dated 24.04.2019

Table 5.1: Approved ARR for Ahmedabad Generation FY 2020-21

(Rs. Crore)

Particulars	**FY 2020-21**
Variable Cost	817.70
O&M Expenses	189.94
Water Charges	13.70
Depreciation	51.03
Interest & Finance Charges	-
Interest on Working Capital	13.27
Return on Equity	63.73
Income Tax	15.34
Less: Non-tariff Income	17.43
Net ARR	**1,147.27**

5.3 Determination of Fixed Charges for FY 2020-21

The total fixed charges approved by the Commission for FY 2020-21 are Rs.329.57 Crore.

5.4 Determination of Variable Charges for FY 2020-21

The Table given below gives the Station wise energy charges for FY 2020-21

Table 5.2: Approved ARR for Ahmedabad Generation FY 2020-21

Sl. No.	Station	Fuel cost approved in the MTR Order for 2020-21(Crore)	Fuel cost per unit Gross (Rs./kWh)	Fuel cost per unit Net (Rs./kWh)
1	D Station	250.89	2.96	3.25
2	E Station	281.91	2.98	3.27
3	F Station	284.89	2.98	3.27
	Total	**817.70**		

6 Compliance of Directives

6.1 Earlier Directives

Green Cess on coal cost

The Commission directed the Petitioner to pursue the matter with the appropriate Ministry at the Central Government.

Compliance:

TPL-G (APP) has submitted its representation to the Ministry of Coal, Government of India requesting it to consider the levy of Green Cess on the basis of Renewable energy generation in the State.

Commission Comment:

The Commission noted the compliance.

6.2 Directives issued in the MTR Order dated 24th April, 2019

Statutory Clearances

Petitioner was directed to submit a copy of statutory clearances obtained and in force for environment norms.

Compliance:

TPL-G (APP) has submitted copy of the order of Consolidated Consent and Authorisation (CC&A) issued by Gujarat Pollution Control Board to the Hon'ble Commission.

Commission Comment:

The Commission noted the submission.

Implementation plan for meeting the new environment norms of MoEF:

TPL-G (APP) was directed to submit capital expenditure plan, after doing cost benefit analysis, including implementation plan for the new environment norms of MoEF (GoI), if required in 6 months time.

Compliance:

The Petitioner shall approach the Hon'ble Commission with its final proposal.

Commission Comment

The Commission noted the submission. TPL is again directed to submit the final proposal at the earliest.

Phasing out plan for generating units

TPL-G (APP) was directed to submit phasing out plan, if any, for their generating units and explore cost effective option for replacing such capacity.

Compliance:

The Petitioner shall explore the necessary cost effective options in due course.

Commission Comment

The Commission has noted the submission and directs TPL to submit the final plan at the earliest.

6.3 Fresh Directives

Improvement in performance parameters due to Capital Expenditure incurred:

TPL shall submit the details of improvement in performance parameters (SHR, SFC, Auxiliary Consumption, etc.) due to the capex incurred towards running the plant within 45 Days.

Submission of final proposal with respect to Capex requirement for meeting Environment norms:

As discussed in para above, while Commission has noted the submission of TPL, it is further directed that, a consolidated plan for Capex for FGD for TPL-G (APP) along with cost benefit analysis with respect to consumers shall be submitted within 6 month of this Order.

Annexure 1: Approved fuel costs for FY 2018-19 for True up D- Station

Sr. No.	Items	Derivation	Unit	2018-19
1	Gross Generation	A	MUs	905.95
2	Auxiliary Consumption	C	%	9.00%
3	Auxiliary Consumption	B	MUs	81.54
4	Net Generation	Y=A-B	MUs	824.42
5	Station Heat Rate	D	Kcal/KWh	2450
6	Sp. Oil Consumption	E	ml/kWh	1.00
7	Gross Calorific Value of Coal	F	kcal/kg	4529
8	Calorific Value of Oil	G	kcal/l	9823
9	Overall Heat	H=A x D	G Cal	2219571
10	Heat from Oil	I=(A x E x G)/1000	G Cal	8899
11	Heat from Coal	J=H-I	G Cal	2210672
12	Transit losses	K	%	0.80%
13	Coal Blend			
14	A) Indigenous Coal	X1	%	51%
15	C) Imported Coal	X3	%	49%
16	Actual Oil Consumption	L=A x E	kl	905.95
17	Actual Coal Consumption	M=(J X 1000)/F	MT	488121
18	A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	251971
19	C) Imported Coal	Q3=M* X X3	MT	238167
20	Price of Coal			
21	A) Indigenous Coal	P1	Rs/MT	5348.67
22	C) Imported Coal	P3	Rs/MT	6952.03
23	Price of Oil	P4	Rs/kl	35250.04
24	Coal cost			
25	A) Indigenous Coal	N1=Q1 X P1/10^5	Rs Lakh	13477.08
26	C) Imported Coal	N3=Q3 X P3/10^5	Rs Lakh	16557.42
27	Total Coal Cost	N4=N1+N2+N3	Rs Lakh	30034.51
28	Oil Cost	N5=P4 x L/10^5	Rs Lakh	319
29	Other Charges (please specify details)	N6	Rs Lakh	(763.17)
30	Total Fuel Cost	O=N4+N5+N6+N7	Rs Lakh	29590.68
31	Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.27
32	Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	3.59
33	Cost of fuel/G. Cal	R=(O/H)*10^5	Rs/Gcal	1333
34	Actual Net Generation	S	MU	827.80
35	Normative fuel cost for actual net generation	T=Q*S	Rs Crore	297.12

Annexure 2: Approved fuel costs for FY 2018-19 for True up – E Station

Sr. No.	Items	Derivation	Unit	2018-19
1	Gross Generation	A	MUs	919.52
2	Auxiliary Consumption	C	%	9.00%
3	Auxiliary Consumption	B	MUs	82.76
4	Net Generation	Y=A-B	MUs	836.77
5	Station Heat Rate	D	Kcal/KWh	2455
6	Sp. Oil Consumption	E	ml/kWh	1.00
7	Gross Calorific Value of Coal	F	kcal/kg	4376
8	Calorific Value of Oil	G	kcal/l	9835
9	Overall Heat	H=A x D	G Cal	2257431
10	Heat from Oil	I=(A x E x G)/1000	G Cal	9043
11	Heat from Coal	J=H-I	G Cal	2248388
12	Transit losses	K	%	0.80%
13	Coal Blend			
14	A) Indigenous Coal	X1	%	80%
15	C) Imported Coal	X3	%	20%
16	Actual Oil Consumption	L=A x E	kl	919.52
17	Actual Coal Consumption	M=(J X 1000)/F	MT	513750
18	A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	416518
19	C) Imported Coal	Q3=M* X X3	MT	100564
20	Price of Coal			
21	A) Indigenous Coal	P1	Rs/MT	5352.16
22	C) Imported Coal	P3	Rs/MT	6862.50
23	Price of Oil	P4	Rs/kl	34934.52
24	Coal cost			
25	A) Indigenous Coal	N1=Q1 X P1/10^5	Rs Lakh	22292.67
26	C) Imported Coal	N3=Q3 X P3/10^5	Rs Lakh	6901.22
27	Total Coal Cost	N4=N1+N2+N3	Rs Lakh	29193.90
28	Oil Cost	N5=P4 x L/10^5	Rs Lakh	321
29	Other Charges (please specify details)	N6	Rs Lakh	(1250.77)
30	Total Fuel Cost	O=N4+N5+N6+N7	Rs Lakh	28264.35
31	Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.07
32	Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	3.38
33	Cost of fuel/G. Cal	R=(O/H)*10^5	Rs/Gcal	1252
34	Actual Net Generation	S=A-B1	MU	844.45
35	Normative fuel cost for actual net generation	T=Q*S	Rs Crore	285.24

Annexure 3: Approved fuel costs for FY 2018-19 for True up – F Station

Sr. No.	Items	Derivation	Unit	2018-19
1	Gross Generation	A	MUs	960.19
2	Auxiliary Consumption	C	%	9.00%
3	Auxiliary Consumption	B	MUs	86.42
4	Net Generation	Y=A-B	MUs	873.78
5	Station Heat Rate	D	Kcal/KWh	2455
6	Sp. Oil Consumption	E	ml/kWh	1.00
7	Gross Calorific Value of Coal	F	kcal/kg	4413
8	Calorific Value of Oil	G	kcal/l	9771
9	Overall Heat	H=A x D	G Cal	2357274
10	Heat from Oil	I=(A x E x G)/1000	G Cal	9382
11	Heat from Coal	J=H-I	G Cal	2347891
12	Transit losses	K	%	0.80%
13	Coal Blend			
14	A) Indigenous Coal	X1	%	72%
15	C) Imported Coal	X3	%	28%
16	Actual Oil Consumption	L=A x E	kl	960.19
17	Actual Coal Consumption	M=(J X 1000)/F	MT	532071
18	A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	388210
19	C) Imported Coal	Q3=M* X X3	MT	146967
20	Price of Coal			
21	A) Indigenous Coal	P1	Rs/MT	5352.87
22	C) Imported Coal	P3	Rs/MT	6934.31
23	Price of Oil	P4	Rs/kl	34754.48
24	Coal cost			
25	A) Indigenous Coal	N1=Q1 X P1/10^5	Rs Lakh	20780.40
26	C) Imported Coal	N3=Q3 X P3/10^5	Rs Lakh	10191.13
27	Total Coal Cost	N4=N1+N2+N3	Rs Lakh	30971.53
28	Oil Cost	N5=P4 x L/10^5	Rs Lakh	334
29	Other Charges (please specify details)	N6	Rs Lakh	(1197.79)
30	Total Fuel Cost	O=N4+N5+N6+N7	Rs Lakh	30107.45
31	Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.14
32	Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	3.45
33	Cost of fuel/G. Cal	R=(O/H)*10^5	Rs/Gcal	1277
34	Actual Net Generation	S=A-B1	MU	877.46
35	Normative fuel cost for actual net generation	T=Q*S	Rs Crore	302.34

COMMISSION'S ORDER

The Commission approves the Aggregate Revenue Requirement for TPL-G (APP) for FY 2020-21, as shown in the Table below:

Approved ARR for TPL-G (APP) for FY 2020-21

(Rs. Crore)

Particulars	**FY 2020-21**
Variable Cost	817.70
O&M Expenses	189.94
Water Charges	13.70
Depreciation	51.03
Interest & Finance Charges	-
Interest on Working Capital	13.27
Return on Equity	63.73
Income Tax	15.34
Less: Non-tariff Income	17.43
Net ARR	**1,147.27**

This order shall come into force with effect from 1st April, 2020.

Sd/-

P. J. THAKKAR
Member

Sd/-

ANAND KUMAR
Chairman

Place: Gandhinagar
Date: 30/03/2020