

GUJARAT ELECTRICITY REGULATORY COMMISSION



Tariff Order

Truing up for FY 2022-23

and

Determination of Tariff for FY 2024-25

For

Torrent Power Limited – Generation

Ahmedabad

Case No. 2322 of 2024

01st June, 2024

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**Before the Gujarat Electricity Regulatory Commission at
Gandhinagar**

Case No. 2322 of 2024

Date of Order: 01.06.2024

CORAM

Anil Mukim, Chairman
Mehul M. Gandhi, Member
S. R. Pandey, Member

ORDER

Chapter 1: 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, vide Suo-Motu Petition No. 2264 of 2023 dated 5th December, 2023 for determination of tariff for its generating business at Ahmedabad for FY 2024-25.



Gujarat Electricity Regulatory Commission (hereinafter referred as “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 and ARR for control period i.e., 29th March 2016 to 31st March 2021 and revenue gap or revenue surplus thereof for the ensuing year for the determination of tariff to be carried out under the GERC (MYT) Regulations, 2016 and amendment thereof from time to time.

The True up year and the ensuing year in the present case is FY 2022-23 and FY 2024-25 respectively, however, the GERC (MYT) Regulations, 2016 which has been notified on 29th March, 2016 were in force till 31st March 2021. While the Commission had initiated the process of framing the MYT Regulations for the 4th Control Period and the process was delayed due to circumstances and reasons beyond the control of the Commission. Considering the delay, the Commission vide its Suo-Motu Order No. 07 of 2020 dated 22nd December, 2020 deferred the 5-year control period for new MYT Regulations for one year. Due to ongoing pandemic, the process was further delayed due to circumstances and reasons beyond the control of the Commission. The Commission vide its Order in Suo-Motu Petition No. 1995 of 2021 dated 24th September, 2021 deferred the next MYT Control period by one more year. Further, the Commission vide its Order in Suo-Motu Petition No. 2140 of 2022 dated 20th October, 2022 deferred the next MYT Control period by one more year. Further, the Commission has issued draft GERC MYT Tariff Regulations, 2024 finalization of which is under process, thus, the Commission vide its Suo-Motu Petition No. 2264 of 2023 dated 5th December, 2023 deferred the next MYT Control period by one more year and accordingly, all the concerned utilities and licensees were directed to file True up for FY 2022-23 and annual ARR for FY 2024-25 and application for determination of tariff for FY 2024-25 based on the principles and methodology as provided in the GERC (MYT) Regulations, 2016 on or before 12th January, 2024.



Subsequently, the Petitioner filed the current Petition for truing-up of FY 2022-23, and determination of ARR and tariff for FY 2024-25 on 12th January, 2024.

After technical validation of the petition, it was registered on 24th January, 2024 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 (Ahmedabad) for its generation business in Ahmedabad.

TPL had assumed the business, consequent upon the amalgamation of Torrent Power Ahmedabad Limited (TPAL), Torrent Power Surat Limited (TPSL) and Torrent Power Generation Limited (TPGL) with Torrent Power Limited. Besides, TPL is also engaged in other businesses, which do not come under the regulatory purview of the Commission. TPL has existing generation facilities, with a total installed capacity of 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 Tariff Order for FY 2023-24

The Petitioner filed its petition for truing-up of FY 2021-22 and determination of tariff for FY 2023-24 on 29th December, 2022. The Petition was registered on 9th January, 2023 (Case No. 2178 of 2023). The Commission vide order dated 31st March, 2023 approved Truing-up of FY 2021-22 and determination of tariff for FY 2023-24.

1.4 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.

The Commission, vide its Suo-Motu Order dated 5th December, 2023 has directed the utilities to file the petition for truing up of FY 2022-23, ARR of FY 2024-25, and determination of tariff for FY 2024-25 based on the principles and methodology as provided in the GERC (Multi Year Tariff) Regulation, 2016.

1.5 Registration of the Current Petition and the Public Hearing Process

The Petitioner submitted the current Petition for Truing-up of FY 2022-23 and determination of tariff for FY 2024-25 on 12th January, 2024. After technical validation of the petition, it was registered on 24th January, 2024 (Case No. 2322 of 2024) 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 News Papers (Petitioner)

S. No.	Name of Newspaper	Language	Date of Publication
1	The Indian Express	English	29/01/2024
2	Navgujarat Samay (Ahemdabad Edition)	Gujarati	29/01/2024
3	Gujarat Guardian (Surat Edition)	Gujarati	29/01/2024

The Petitioner also placed the public notice and the petition on its website (www.torrentpower.com) for inviting objections and suggestions on the petition. The interested parties/stakeholders were asked to file their objections/suggestions on the petition on or before 28th February, 2024.

The Commission also placed the petition 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 newspapers in order to solicit wider participation by the stakeholders:

Table 1-2 List of Newspapers (Commission)

S. No.	Name of Newspaper	Language	Date of Publication
1	The Indian Express	English	29/02/2024
2	Divya Bhaskar	Gujarati	28/02/2024
3	Gujarat Samachar	Gujarati	28/02/2024

The Commission has fixed the date for public hearing for the petition on 16th March, 2024 at 11:30 A.M. The stakeholders have neither submitted their written suggestion/objections nor presented during the hearing on current petition.

Petitions	Date & Time	Venue
TPL-G, TPL-D(A), TPL-D(S) and TPL-D(D)	16 th March 2024 at 11:30 A.M	GERC Office, Gandhinagar

1.6 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.

TPL has approached the Commission with the present Petition for “Truing up” of the FY 2022-23 and determination of Tariff for the FY 2024-25.

The Commission has undertaken the “Truing up” for FY 2022-23, based on the submissions of the Petitioner. The Commission has undertaken the computation of gains and losses for FY 2022-23, based on the annual accounts and final ARR for FY 2022-23 approved in the Tariff Order dated 31st March 2022 in Case No. 2032/2021.

While truing up of FY 2022-23, 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 2022-23 has been considered, based on the GERC (MYT) Regulations, 2016.

Determination of ARR and Tariff for FY 2024-25 has been considered as per the methodology and principles adopted in the GERC (Multi- Year Tariff) Regulations, 2016 and amendment thereof as the base. Truing up of FY 2022-23 shall be carried out based on the principles and methodology adopted in GERC (MYT) Regulations, 2016.

1.7 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 focuses on the details of truing up for FY 2022-23.
4. The fourth chapter deals with the determination of Tariff for FY 2024-25.
5. The fifth chapter deals with compliance of directives and issue of fresh directives.



Chapter 2: Summary of TPL-Generation’s Petition

2.1 Actual for FY 2022-23 submitted by TPL-G (APP)

2.1.1 TPL-G (APP) submitted the current petition seeking approval of True-Up for ARR of FY 2022-23. The details of expenses under various heads of ARR are given in Table below;

Table 2-1 Actual claimed by TPL (G) APP for FY 2022-23 (Rs. Crore)

Particulars	Order	Actual
Variable Cost	883.21	1,005.07
O&M Expenses	163.60	144.94
Water Charges	12.66	23.72
Depreciation	50.35	50.11
Interest on Loan	-	1.26
Interest on Working Capital	12.69	15.27
Return on Equity	61.31	61.14
Income Tax	20.83	19.92
Incentive	-	5.70
Less: Non-Tariff Income	13.11	18.09
Net ARR	1,191.54	1,309.04

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

Table 2-2 Trued-up ARR claimed by TPL (G) APP for FY 2022-23 (Rs. Crore)

Particulars	Unit	Claimed
ARR as per Order	(a)	1,191.54
Gains/(Losses) due to Uncontrollable Factors	(b)	(162.03)
Gains/(Losses) due to Controllable Factors	(c)	44.53
Pass through as Tariff	d= -(1/3+b)	147.19
ARR True-Up	e= a + d	1,338.73

2.2 ARR for FY 2024-25

2.2.1 TPL-G (APP) has also furnished the ARR of FY 2024-25 as depicted in the table below;

Table 2-3 ARR of TPL (G) APP for FY 2024-25 (Rs. Crore)

Particulars	Submitted
Variable Cost	1019.66
O&M Expenses	163.67
Water Charges	26.11
Depreciation	1.44
Interest on Loan	17.21
Interest on Working Capital	52.37
Return on Equity	64.92
Income Tax	19.92
Incentive	-
Less: Non-Tariff Income	18.09
Net ARR	1,347.20

2.3 Prayers of TPL-G (APP)'s before the Commission

2.3.1 While filing the petition for Truing-Up of FY 2022-23 including ARR of FY 2024-25, TPL-G (APP) has submits following prayers before the Commission;

- a) Admit the petition for truing up of FY 2022-23, Aggregate Revenue Requirement for FY 2024-25, and determination of tariff for FY 2024-25.
- b) Approve the trued up ARR of FY 2022-23 as set out in the petition.
- c) Approve the sharing of gains/ losses as proposed for FY 2022-23.
- d) Approve the Aggregate Revenue Requirement for FY 2024-25.
- e) Allow recovery of the costs as per the Judgments/ orders of the Hon'ble Tribunal/ Hon'ble Commission in the Appeals/ Review Petitions filed by the Petitioner.
- 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 Commission deems fit to be issued.
- i) Condone any inadvertent omissions/ errors/ rounding off difference/ shortcomings.

Chapter 3: Truing-Up for FY 2022-23

3.1 Introduction

3.1.1 This chapter deals with the truing-up of FY 2022-23 for TPL-G Ahmedabad Power Plant (APP). The Commission has studied and analysed each component of the ARR for FY 2022-23 in the following paragraphs.

3.2 Generating Stations of TPL-G (APP)

3.2.1 TPL-G (APP) has existing coal based thermal power generating facilities with total installed capacity of 362 MW at Sabarmati, Ahmedabad that consist of 3 units viz. D-Station (120 MW), E-Station (121 MW) and F-Station (121 MW).

3.2.2 The details of the stations existing as on 1st April 2022 along with their capacities and dates of commission are given in the table below;

Table 3-1 Capacity, COD and age of TPL-G (APP) Stations as on 1st April 2022

Sabarmati Thermal Power Plant (Coal Based)			
Name of Station	Capacity in MW	Year of COD	Age/Years
D-Station	120	1978/2004* Upgrading Capacity	44
E-Station	121	1984	38
F-Station	121	1988	34

3.3 Operational Performance Parameters

3.3.1 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.

3.3.2 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 2022-23 for individual stations. The Commission has taken up the truing up of the annual performance parameters for FY 2022-23, as discussed in the following sections.

3.4 Plant Availability Factor (PAF)

Petitioner’s Submission:

- 3.4.1 TPL-G (APP) has submitted that the actual plant availability factor for its three stations for FY 2022-23 has been computed considering annual shutdown of the unit without factoring the forced outages. TPL-G (APP) submits that the reason for variation in actual and approved availability is due to longer forced outage at D station due to boiler pressure part leakage. However, in E & F stations the petitioner has achieved higher availability.

Table 3-2 Plant Availability Factor (PAF) of TPL-G (APP) in FY 2022-23

Station	Order	Actual
D-Station	94.29%	91.99%
E-Station	92.69%	95.30%
F-Station	91.89%	92.90%

Commission’s Analysis:

- 3.4.2 As defined in Regulation 22.2 of the Gujarat Electricity Regulatory Commission (Multi-Year Tariff) Regulations, 2016, Plant Availability Factor is a controllable parameter, therefore, the Commission considers the Plant Availability Factor for various stations as approved in Order dated 31th March, 2022.
- 3.4.3 However, for full recovery of annual fixed charges the Normative Plant Availability Factor shall be 85% as defined under Regulation 53.1 of the GERC (MYT) Regulations, 2016, and TPL-G (APP) has furnished the SLDC certificate verifying the consolidated availability of 93.40% of all the Stations which is higher than that of normative, therefore, Commission approves the eligibility of

TPL-G (APP) for full recovery of annual fixed charges based on normative plant availability factor.

3.4.4 Hence, for truing-up for FY 2022-23, the PAF considered is as given the table below;

Table 3-3 PAF of TPL-G (APP) approved for FY 2022-23

Station	Order	Actual	Approved
D-Station	94.29%	91.99%	94.29%
E-Station	92.69%	95.30%	92.69%
F-Station	91.89%	92.90%	91.89%

3.5 Plant Load Factor (PLF)

Petitioner's Submission:

3.5.1 TPL-G (APP) has submitted that the actual plant load factor for Station-D is low due to variation in the offtake. It has further submitted that PLF is dependent on actual offtake which in turns depends on the drawl by the consumers of the licensee which is beyond the control of the Petitioner.

3.5.2 Therefore, the Petitioner considers the actual plant load factor for various stations for FY 2022-23 for truing-up purpose as an uncontrollable parameter, which are tabulated as below:

Table 3-4 Plant Load Factor of TPL-G (APP) for FY 2022-23

Station	Order	Actual
D-Station	89.10%	85.43%
E-Station	88.40%	90.06%
F-Station	88.51%	89.18%

Commission's Analysis:

3.5.3 It is found that actual plant load factor for Station-D of TPL-G (APP) is low as compared to the Tariff Order dated 31st March, 2022 because of variation in the offtake.

3.5.4 Therefore, the Commission considers the actual plant load factor of FY 2022-23 for these stations for truing-up purpose as an uncontrollable parameter, which is as per the proviso 53.2 of the GERC (MYT) Regulations, 2016.

Table 3-5 Plant Load Factor of TPL-G (APP) approved for FY 2022-23

Station	Order	Actual	Approved
D-Station	89.10%	85.43%	85.43%
E-Station	88.40%	90.06%	90.06%
F-Station	88.51%	89.18%	89.18%

3.6 Auxiliary Consumption

Petitioner's Submission:

3.6.1 TPL-G(APP) has submitted that it has made continuous efforts to maintain the auxiliary consumption at below approved levels and in turn has achieved lower auxiliary consumption level for all the stations as compared to the approved values in Tariff Order dated 31st March, 2022.

3.6.2 It has also submitted that in the present petition for the purpose of quantification of gains/loss, the Petitioner has considered the variation in Auxiliary consumption as controllable parameter.

Table 3-6 Auxiliary consumption of TPL-G (APP) for FY 2022-23

Station	Order	Actual
D-Station	9.00%	8.64%
E-Station	9.00%	7.94%
F-Station	9.00%	8.43%

Commission's Analysis:

3.6.3 It is noted that for all the Stations of TPL-G (APP), the actual auxiliary consumption is lower than that approved in Tariff Order dated 31st March, 2022.

3.6.4 As per GERC MYT Regulations, 2016, auxiliary consumption is a controllable parameter, therefore, the Commission approves the auxiliary consumption for various stations, as approved in the Tariff Order dated 31st March, 2022 for FY 2022-23 for truing up purpose.

Table 3-7 Auxiliary consumption of TPL-G (APP) approved for FY 2022-23

Station	Order	Actual	Approved
D-Station	9.00%	8.64%	9.00%
E-Station	9.00%	7.94%	9.00%
F-Station	9.00%	8.43%	9.00%

3.7 Station Heat Rate (SHR)

Petitioner's Submission:

3.7.1 TPL-G (APP) has submitted that during FY 2022-23, SHR of all the three stations was better than the approved. The variation in SHR is a controllable parameter within the operating range of PLF and the same should be considered for sharing of gains/losses.

Table 3-8 Station Heat Rate of TPL-G (APP) claimed for FY 2022-23 (Kcal/kWh)

Station	Order	Actual
D-Station	2,450	2,446
E-Station	2,455	2,442
F-Station	2,455	2,409

Commission's Analysis:

3.7.2 The Commission notes that the SHR achieved for all the three Stations of TPL (G) APP is better than the approved levels. For the purpose of True-up for FY 2022-23, the Commission approves the SHR as approved in Tariff Order dated 31st March, 2022, which is tabulated as below:

Table 3-9 Station Heat Rate of TPL-G (APP) approved for FY 2022-23 (Kcal/kWh)

Station	Order	Actual	Approved
D-Station	2,450	2,446	2,450
E-Station	2,455	2,442	2,455

Station	Order	Actual	Approved
F-Station	2,455	2,409	2,455

3.8 Secondary Fuel Oil Consumption (SFC)

Petitioner’s Submission:

3.8.1 TPL-G (APP) has submitted that during FY 2022-23, all three stations has achieved the lower SFC owing to continuous efforts and better preventive maintenance. As SFC is a controllable parameter it should be considered for sharing of gains/losses.

Table 3-10 SFC of TPL-G (APP) claimed for FY 2022-23 (ml/kWh)

Station	Order	Actual
D-Station	1.00	0.42
E-Station	1.00	0.06
F-Station	1.00	0.20

Commission’s Analysis:

3.8.2 The actual Secondary Fuel Consumption (SFC) for all the three stations is lower than the approved values.

3.8.3 Since, the Secondary Fuel Consumption is a controllable parameter, thus, the Commission approves the SFC on normative basis as approved in Tariff Order dated 31st March, 2022, for Truing-Up of FY 2022-23.

**Table 3-11 SFC of TPL – G (APP) approved for FY 2022-23
(ml/kWh)**

Station	Order	Actual	Approved
D-Station	1.00	0.42	1.00
E-Station	1.00	0.06	1.00
F-Station	1.00	0.20	1.00



3.9 Transit Loss

Petitioner’s Submission:

- 3.9.1 TPL-G (APP) has submitted that due to their continuous efforts it has achieved actual transit loss of 0.77% during FY 2022-23 against the targeted loss transit level of 0.80%.

Table 3-12 Transit Loss of TPL-G (APP) claimed for FY 2022-23

Stations	Order	Actual
All Coal Based	0.80%	0.77%

Commission’s Analysis:

- 3.9.2 The actual Transit losses for AMGEN as a whole are lower than the approved values.
- 3.9.3 As, the transit losses is a controllable parameter, thus, the Commission approves the transit loss on normative basis as approved in Tariff Order dated 31st March, 2022, for Truing-Up of FY 2022-23 as per the GERC (MYT) Regulations, 2016, as given in the Table below:

Table 3-13 Transit loss approved for FY 2022-23

Stations	Order	Actual	Approved
All Coal Based	0.80%	0.77%	0.80%

3.10 Summary of Performance Parameters approved for FY 2022-23

- 3.10.1 Based on the analysis in the preceding paragraphs, the performance parameters approved for different power generation stations of TPL-G (APP) for FY 2022-23, for truing up purpose are listed in the Table below:

Table 3-14 Performance parameters of TPL-G stations approved for FY 2022-23

Station	PAF (%)	PLF (%)	Aux. Consumption (%)	Station Heat rate (Kcal/kWh)	SFC (gm/kWh)	Transit Loss (%)
D-Station	94.29%	85.43%	9.00%	2,450	1.00	0.80%

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Station	PAF (%)	PLF (%)	Aux. Consumption (%)	Station Heat rate (Kcal/kWh)	SFC (gm/kWh)	Transit Loss (%)
E-Station	92.69%	90.06%	9.00%	2,455	1.00	0.80%
F-Station	91.89%	89.18%	9.00%	2,455	1.00	0.80%

3.11 Gross and Net Generation

3.11.1 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 2022-23 are given in the Table below:

Table 3-15 Gross and Net Generation Approved for FY 2022-23

Particulars	Order	Actual	Approved
D-Station			
Capacity (MW)	120	120	120
PLF (%)	89.10%	85.43%	85.43%
Gross Generation (MU)	936.67	898.07	898.04
Auxiliary Consumption (%)	9.00%	8.64%	9.00%
Auxiliary Consumption (MU)	84.30	77.55	80.82
Net Generation (MU)	852.37	820.52	817.22
E-Station			
Capacity (MW)	121	121	121
PLF (%)	88.40%	90.06%	90.06%
Gross Generation (MU)	936.96	954.64	954.60
Auxiliary Consumption (%)	9.00%	7.94%	9.00%
Auxiliary Consumption (MU)	84.33	75.81	85.91
Net Generation (MU)	852.63	878.83	868.69
F-Station			
Capacity (MW)	121	121	121
PLF (%)	88.51%	89.18%	89.18%
Gross Generation (MU)	938.12	945.31	945.27
Auxiliary Consumption (%)	9.00%	8.43%	9.00%
Auxiliary Consumption (MU)	84.43	79.69	85.07
Net Generation (MU)	853.69	865.63	860.20
TPL-G (APP)			
Gross Generation (MU)	2,811.75	2,798.03	2,797.91
Auxiliary Consumption (MU)	253.06	233.04	251.81
Net Generation (MU)	2,558.69	2,564.98	2,546.10

3.12 Cost Parameters

3.12.1 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 2022-23.

3.13 Mix of Coal

Petitioner's Submission:

3.13.1 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 2022-23, as given in the Table below:

Table 3-16 The mix of different types of coal for FY 2022-23

S. No.	Stations	Indigenous Coal (%)	Imported Coal (%)
1	D Station	79.15%	20.85%
2	E Station	86.59%	13.41%
3	F Station	90.74%	9.26%

Commission's Analysis:

3.13.2 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.

3.14 Wt. Av. Gross Calorific Value (GCV) of Fuel

Petitioner's Submission:

3.14.1 TPL-G (APP) has furnished the actual Wt. Av. Gross Calorific Value of fuels for all the stations put together for FY 2022-23, as given in the Table below:

Table 3-17 Wt. Av. Gross Calorific value (GCV) of Different Fuels for Coal--based Stations for FY 2022-23

Particulars	Approved in Order	Actuals
Indigenous Coal (kcal / kg)	4,200	4,685
Imported Coal (kcal / kg)	4,750	4,430
Secondary Fuel Oil (kcal / L)	9,984	10,122

Commission’s Analysis:

3.14.2 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.

3.15 Wt. Av. Prices of Fuel

Petitioner’s Submission:

3.15.1 TPL-G (APP) has furnished the actual Wt. Av. Price per unit of different fuels for all the stations put together for FY 2022-23, as given in the Table below:

Table 3-18 Wt. Av. Price / unit of fuels for FY 2022-23 (Actual)

Sr. 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	5,959.97	11,824.26	59,493.48

3.15.2 TPL-G (APP) has furnished the actual Wt. Av. cost / MT of different fuels for different stations for FY 2022-23, as given in the Table below:

Table 3-19 Av. Price / Unit of Fuels for FY 2022-23 (Actual) for Different Stations

Sr. 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	5,997	11,749	59,421
2	E Station	6,027	11,670	58,907
3	F Station	6,029	11,660	59,812

Commission’s Analysis:

3.15.3 On a query from the Commission while approving truing-up of FY 2022-23, TPL has stated that the consumption of imported coal and consequential blending ratio depends on various factors such as availability of domestic coal, quality of domestic coal, technical requirement and energy schedule provided by the beneficiaries. During FY 2022-23, it has made efforts to optimize the generation cost by using domestic coal to the extent possible.

3.15.4 Wt. Av. GCV of indigenous coal and imported coal for each station considered by TPL as per actuals are as given below:

Particulars	D Station	E Station	F Station
GCV of Coal (K.Cal/Kg)	4,630	4,653	4,661
GCV of Oil (K.Cal / L)	10,147	10,134	10,070

3.15.5 Price of indigenous coal, imported coal and oil for each station considered by TPL as per actuals given below:

Particulars	D Station	E Station	F Station
Indigenous Coal (Rs / MT)	5,997	6,027	6,029
Imported Coal (Rs / MT)	11,749	11,670	11,660
Oil (Rs / KL)	59,421	58,907	59,812

3.15.6 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 2022-23, as these are uncontrollable items.

3.16 Fuel Costs

3.16.1 Based on the performance and cost parameters, the normative fuel costs for each of the stations of TPL-G (APP) are as given below;

Table 3-20 Fuel Cost of TPL-G (APP) for truing up for FY 2022-23

Station	As per Actual Submitted by TPL				As Approved by the Commission			
	Gross Gen. (MU)	Net Gen. (MU)	Fuel Cost (Rs. Crore)	Fuel Cost (Rs./kWh)	Gross Gen. (MU)	Net Gen. (MU)	Fuel Cost (Rs. Crore)	Fuel Cost (Rs./kWh)
D-Station	898.04	820.45	343.50	4.19	898.04	817.22	347.73	4.24
E-Station	954.60	878.80	340.55	3.88	954.60	868.69	350.44	3.99
F-Station	945.27	865.59	321.03	3.71	945.27	860.20	332.77	3.84

3.17 Variation between Actual Costs and Approved Costs

3.17.1 The Commission has verified the actual fuel cost submitted by TPL-G (APP) with the annual audited accounts of FY 2022-23. The Commission has computed the normative fuel cost for the purpose of computing the gains/losses, due to the controllable factors.

Table 3-21 Total Fuel Cost approved for TPL-G (APP) for FY 2022-23 (Rs. Crore)

Particulars	As per Actual Claimed	Approved
Total Fuel Cost	1,005.07	1,030.94

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

3.18 Gains and Losses in fuel costs due to Controllable Factors

3.18.1 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 3-22 Approved Gains/(Losses) from Fuel Expenses (due to Controllable Factors) for FY 2022-23 (Rs. Crore)

Station	Fuel cost arrived at with approved parameters for actual net generation for FY 2022-23	Actual fuel cost at actual parameters for FY 2022-23	Gains / (Losses) due to controllable factors
D-Station	347.73	343.50	4.24
E-Station	350.44	340.55	9.90
F-Station	332.77	321.03	11.74

**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.*

3.19 Gains and Losses in fuel costs due to Uncontrollable Factors

3.19.1 The Commission has computed the fuel expenses, so derived by considering the fuel costs as approved in the Tariff Order dated 31st March, 2022, 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 3-23 Approved Gains/(Losses) from Fuel Expenses (due to Uncontrollable Factors) for FY 2022-23 (Rs. Crore)

Station	Fuel cost approved in Order	Actual fuel cost with Approved parameters for FY 2022-23	Gains / (Losses) due to uncontrollable factors
D-Station	293.05	347.73	(54.68)
E-Station	295.40	350.44	(55.04)
F-Station	294.76	332.77	(38.01)

3.20 Operation & Maintenance (O&M) Expenses

Petitioner’s Submission:

3.20.1 TPL-G (APP) has submitted that the actual O&M expenses incurred during FY 2022-23 vis-à-vis the approved in Order and the variation is to be considered as controllable, which is tabulated as below:

Table 3-24 O&M Expenses claimed by of TPL-G (APP) for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Claimed by Petitioner
Operation & Maintenance Expenses	163.60	144.94

Commission’s Analysis:

3.20.2 Employee expenses as per annual accounts are Rs. 50.23 Crore net of expenses capitalized of Rs. 16.72 Crore. The Petitioner has added commission to non-executive directors of Rs. 0.15 Crore (from A&G expense head) and deducted expense towards Re-measurement of Defined Benefit Plans of Rs. -1.52 Crore as appearing in P & L Statement. Accordingly, the employee expenses are Rs. 48.86 Crore.

3.20.3 A&G expense as per annual accounts are Rs. 44.75 Crore net of expenses capitalized of Rs. 17.97 Crore. The Petitioner has claimed A&G expenses after reduction on account of Commission to Non-Executive Directors (Rs. 0.15 Crore), Water Charges (Rs. 23.72 Crore), Advertisement Expenses (Rs. 0.03 Crore), Expenses relating to retired stations (Rs. 0.02 Crore), Provision carried forward (Rs. 0.25 Crore), insurance claim receipt (Rs. 2.00 Crore) and addition of Lease payments (Rs. 1.03 Crore). Since the Commission has considered Insurance Claim Receipt as a part of Non-Tariff Income, the same has not been reduced from A&G expenses. Accordingly, the Commission approves the A&G expense of Rs. 21.61 Crore.

- 3.20.1 R&M expenses as per annual accounts are Rs. 76.61 Crore. The Petitioner has claimed R & M expense of Rs. 76.47 Crore net of Rs. 0.14 Crore against R & M expenses pertaining to retired assets. The Commission accordingly approves R & M expense of Rs. 76.47 Crore.
- 3.20.2 The Commission, accordingly, approves the O&M expenses of Rs. 146.94 Crore, for truing up of FY 2022-23.
- 3.20.3 Further, as per Regulation 22 of the GERC (MYT) Regulations, 2016, the variation in O&M expenses is to be considered as controllable except the change in law and wage revision. Accordingly, as per the GERC (MYT) Regulations, 2016 Gain/(Losses) on account of O&M expenses in the truing up of FY 2022-23 is approved by the Commission as given in the Table below:

Table 3-25 O&M Expenses and Gains / (Losses) Approved for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Approved in Truing-Up	Deviation	Gains/(Losses) due to Controllable	Gains/(Losses) due to Uncontrollable
O&M Expenses	163.60	146.94	16.66	16.66	-

3.21 Water Charges

Petitioner's Submission:

- 3.21.1 TPL-G (APP) has claimed Rs. 23.72 Crore towards actual water charges in the truing-up of FY 2022-23, as against Rs. 12.66 Crore approved in the Tariff Order dated 31st March, 2022. It is further submitted that the variation in water charges is mainly due to water usage based on higher generation than estimated and revised rate of water charges. The existing Regulation provides that water charges are to be allowed as per actual. The details are given in the Table below:

Table 3-26 Water Charges Claimed by TPL-G (APP) for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Actual
Water Charges	12.66	23.72

Commission’s Analysis:

3.21.2 Regulation 54(b) of the GERC MYT Regulations, 2016 specify the water charges shall be allowed separately as per actuals.

3.21.3 The Commission verified the water charges from the annual accounts and approves the water charges at Rs. 23.72 Crore for FY 2022-23. The deviation is considered as uncontrollable and the gains and losses are considered as detailed below;

Table 3-27 Gains / (Losses) Approved for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Approved in Truing-Up	Deviation	Gains/(Losses) due to Uncontrollable
Water Charges	12.66	23.72	(11.06)	(11.06)

3.22 Capital Expenditure, Capitalisation and Sources of Funding

Petitioner’s Submission:

3.22.1 TPL-G (APP) has claimed Rs. 22.30 Crore towards actual capital expenditure for FY 2022-23, as against Rs. 40.76 Crore approved in the Tariff Order dated 31st March, 2022. The main reason of variation in actual vis-à-vis approved capital expenditure is on account of deferred capex planned under turbine works for E & F stations. The Summary of capital expenditure incurred during FY 2022-23 is tabulated as under;

Table 3-28 Capital Expenditure Claimed by TPL-G (APP) For FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Actual
Normal Capital Expenditure		
Boiler works	6.99	5.64
Turbine works	17.50	1.43
Electrical works	3.89	2.36
C&I works	8.20	10.27
Civil works	1.44	1.05
Others	0.65	1.40
Miscellaneous Capital Expenditure		
Miscellaneous	2.09	0.15
Total Cost	40.76	22.30

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

a) Normal Capital Expenditure – TPL G (APP) incurred the expenditure of Rs. 22.15 Crore against approval of Rs. 38.67 Crore. The detail of actual expenditure is as under:

- Boiler Works – Expenditure incurred primarily towards ESP in E station, to adhere to the environmental norms. Other expenditure is incurred towards pressure part replacement, replacement of mill components and ash line.
- Turbine Works – Main expenditure planned under this head for E&F station turbine has been differed to FY 2024-25. During FY 2022-23 capex has been incurred towards pumps and associated equipment.
- Electrical Works – Major expenditure incurred is towards D station HT Board, upgradation of ABT system, replacement of ICT-1 transformer.
- C&I Works – Major expenditure incurred towards Human Machine Interface (HMI) upgradation of E and F station along with switchyard SCADA Distributed Control System (DCS).
- Civil Works – Expenditure has been incurred towards refurbishment works of compound wall and storm water network expansion.
- Others – Expenditure incurred towards prevention system, Linear Heat Sensing Cable for fire protection, various refurbishment works of air and water cooling system, HVAC system, etc.

b) Misc. Capital Expenditure – TPL G (APP) incurred an expenditure of Rs. 0.15 Crore towards Common server installation and IT.

3.22.3 TPL-G (APP) has claimed actual capitalisation of Rs. 22.19 Crore for FY 2022-23, as against Rs. 29.94 Crore approved in Order as shown in table below;

Table 3-29 Capitalisation Claimed for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Claimed by Petitioner
Opening GFA	1,154.71	1,156.47
Addition to GFA	29.94	22.19
Deletion to GFA	-	3.81
Closing GFA	1,184.65	1,174.85

Commission’s Analysis:

3.22.4 The Petitioner has claimed capex of Rs. 22.30 Crore for FY 2022-23, as per the audited annual accounts the capex is worked out to Rs. 22.30 Crore.

3.22.5 The Petitioner has furnished the details of project-wise breakup of actual capitalization of Rs. 22.19 Crore with details of Opening CWIP as on 1st April, 2022, CAPEX during the year and Closing CWIP as on 31st March, 2023 in form 4.3 of the petition. The Petitioner has furnished the detailed project/scheme-wise explanation of the major capital expenditure incurred and capitalisation during FY 2022-23 as deliberated under Petitioner’s submission and not repeated here due to brevity.

3.22.6 The Petitioner has considered opening GFA for FY 2022-23 at Rs. 1,156.47 Crore based on the closing GFA approved in truing up for FY 2021-22, the same is being considered by the Commission.

3.22.7 TPL-G (APP) has de-capitalised assets to the extent of Rs. 3.81 Crore during FY 2022-23. However, it is observed that deductions from GFA is at Rs. 1.96 Crore as per (Note 4.1) of the audited annual accounts for FY 2022-23. The Commission has addressed the petitioner to furnish the details for the discrepancy against which the Petitioner has reported that the fixed asset shown in the annual accounts is on Net Fixed Assets (NFA) basis as per Ind AS

and the same is shown on Gross Fixed Assets (GFA) basis in the petition as per GERC MYT Regulations. Hence, the Commission considers de-capitalised assets at Rs. 3.81 Crore and accordingly adjustments made to GFA in truing up for FY 2022-23.

3.22.8 The Commission accordingly approves the opening GFA, addition to GFA during the year and closing GFA for FY 2022-23 as tabulated below;

Table 3-30 Approved Capitalisation for FY 2022-23 (Rs. Crore)

Particulars	Claimed by Petitioner	Approved by Commission
Opening GFA	1,156.47	1,156.47
Addition to GFA	22.19	22.19
Deletion to GFA	3.81	3.81
Closing GFA	1,174.85	1,174.85
Capitalisation	22.19	22.19
Normative Debt @70%	15.53	15.53
Normative Equity @30%	6.66	6.66

3.23 Depreciation

Petitioner’s Submission:

3.23.1 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. TPL-G (APP) has claimed depreciation of Rs. 50.11 Crore for FY 2022-23, as against Rs. 50.35 Crore approved in the Order, as detailed in table below;

Table 3-31 Depreciation claimed by TPL-G (APP) for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Actual
Depreciation	50.35	50.11

Commission’s Analysis:

- 3.23.2 The Commission has verified the depreciation from the annual accounts for FY 2022-23 and observed that depreciation as per annual accounts is Rs. 51.14 Crore. However, the Petitioner has claimed depreciation of Rs. 50.11 Crore in truing up for FY 2022-23.
- 3.23.3 The Commission has addressed the Petitioner to furnish the details for the discrepancy against which the Petitioner has reported that depreciation has been claimed in accordance with the applicable regulations. The fixed assets schedule of annual accounts is on net fixed assets basis as per Ind. AS.
- 3.23.4 The Commission, accordingly, approves the depreciation of Rs. 50.11 Crore for FY 2022-23, the deviation in depreciation as compared to approved in Tariff Order dated 31st March, 2022, is considered as uncontrollable as the depreciation is dependent on capitalisation. The Commission, accordingly, approves the gains/(losses) on account of depreciation for FY 2022-23, as tabulated below;

Table 3-32 Depreciation and Gains/Losses approved for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Approved in Truing-Up	Deviation	Gains/(Losses) due to Uncontrollable
Depreciation	50.35	50.11	0.24	0.24

3.24 Interest Expenses

Petitioner’s Submission:

- 3.24.1 TPL-G (APP) has claimed a sum of Rs. 1.26 Crore towards actual interest and finance expenses for FY 2022-23 on normative basis as per GERC MYT Regulations, 2016. Petitioner further submits that the variation in interest expenses compared to approved is to be treated as uncontrollable as it depends on quantum of actual capitalization and variation in interest rates.

Table 3-33 Interest and finance charges claimed for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Claimed by Petitioner
Opening Balance	-	-
Less; reduction of normative loan due to retirement	-	(0.30)
Addition of Loan	20.95	15.53
Repayment during year	50.35	50.11
Closing Balance	-	-
Average Loan	-	-
Weighted average rate of interest (%)	7.85%	7.62%
Interest Expenses	-	-
Other Borrowing Costs	-	1.26

Commission’s Analysis:

3.24.2 The Commission has considered opening loan balance as on 01.04.2022 equal to the closing loan balance of NIL approved in truing up FY 2021-22. Addition to loan during the year is considered at 70% of net value of assets added during the year and repayment is considered equal to the depreciation for the year.

3.24.3 As per first proviso of Regulation 38.5 of the GERC (MYT) Regulations, 2016, the Commission has verified the weighted average rate of interest on basis of actual loan portfolio during the year.

3.24.4 Accordingly, based on the actual capitalization achieved by TPL-G (APP) during FY 2022-23 and the approved normative borrowings considering the interest rate of 7.62%, the Commission has computed the interest, as tabulated below;

Table 3-34 Interest Approved by the Commission for FY 2022-23 (Rs. Crore)

Particulars	Claimed by Petitioner	Approved in Truing-Up
Opening Balance	-	-
Less; reduction of normative loan due to retirement	(0.30)	(0.30)
Addition of Loan	15.53	15.53
Repayment during year	50.11	50.11
Closing Balance	-	-

Particulars	Claimed by Petitioner	Approved in Truing-Up
Average Loan	-	-
Weighted average rate of interest (%)	7.62%	7.62%
Interest Expenses	-	-
Other Borrowing Costs	1.26	1.26

3.24.1 With regard to 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 capitalization, 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 capitalization due to bonafide reasons, the utility cannot be penalized by allowing only 1/3rd of the loss in the ARR.

3.24.2 The Commission, in terms of regulations, has considered variation in capitalization as uncontrollable and accordingly dependent components of ARR of interest on loan, depreciation and Return on Equity are also considered as uncontrollable.”

3.24.3 The Commission, accordingly, approves the gains/losses on account of interest and finance charges as uncontrollable for FY 2022-23, as tabulated below;

Table 3-35 Gains / (Losses) Approved for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Approved in Truing-Up	Deviation	Gains/(Losses) due to Uncontrollable
Interest & Finance Charges	-	1.26	(1.26)	(1.26)

3.25 Interest on Working Capital

Petitioner’s Submission:

3.25.1 TPL-G (APP) has claimed Rs. 15.27 Crore towards interest on working capital for FY 2022-23, as against Rs. 12.69 Crore approved in Order as tabled below;

Table 3-36 Interest on Working Capital Claimed for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Claimed by Petitioner
Cost of Coal for 1.5 Months	106.65	121.92
Secondary fuel oil for 2 months	1.80	2.67
O&M expenses for 1 month	13.63	12.08
Maintenance Spares @1% of GFA	11.55	11.56
Receivables for 1 month	-	-
Working Capital Requirement	133.62	148.23
Rate of Interest (%)	9.50%	10.30%
Interest on Working Capital	12.69	15.27

Commission’s Analysis:

3.25.2 The Commission has examined the computation of normative working capital and interest thereon under the GERC (MYT) Regulations, 2016. Regulation 40.1 of GERC (MYT) Regulations 2006 specify the norms for thermal generating stations for computation of working capital requirement and interest on working capital thereon. According to the regulations the working capital requirement comprises of 1 and ½ month of coal cost, 1 month cost of oil, 2 months’ secondary fuel oil cost, 1-month O&M expenses, maintenance spares at 1% of historical cost of GFA and receivables equivalent to 1 month. Regulations specify that *in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.* As such receivables equivalent to one month is not considered for working capital requirement.

3.25.3 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.”

3.25.4 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 7.80% prevailing during the financial year 2022-23 plus 250 basis points. Accordingly, the rate of interest on working capital has been worked out to be 10.30%.

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

Table 3-37 Interest on Working Capital approved for FY 2022-23 (Rs. Crore)

Particulars	Claimed By Petitioner	Approved for Truing-Up
Cost of Coal for 1.5 Months	121.92	121.92
Secondary fuel oil for 2 months	2.67	2.67
O&M expenses for 1 month	12.08	12.25
Maintenance Spares @1% of GFA	11.56	11.56
Receivables for 1 month	-	-

Particulars	Claimed By Petitioner	Approved for Truing-Up
Working Capital Requirement	148.23	148.40
Rate of Interest (%)	10.30%	10.30%
Interest on Working Capital	15.27	15.28

3.25.6 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 computed. After working out the interest on working capital, the Commission has treated the interest as an uncontrollable cost for purpose of estimating gains/(losses).

3.25.7 The Commission, accordingly, approves the gains/(losses) on account of interest on working capital for FY 2022-23 as tabulated below;

Table 3-38 Gains/(Losses) in IoWC approved for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Approved in Truing-Up	Deviation	Gains/(Losses) due to Uncontrollable
Interest on Working Capital	12.69	15.28	(2.59)	(2.59)

3.26 Return on Equity

Petitioner's Submission:

3.26.1 TPL-G (APP) has claimed a sum of Rs. 61.14 Crore towards return on equity for FY 2022-23, as against Rs. 61.31 Crore approved in Order, TPL-G (APP) further submits that closing balance of equity has been arrived at considering additional equity of 30% of the capitalisation during the year, as tabled below;

Table 3-39 Return on Equity claimed by the TPL -G (APP) for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Claimed by Petitioner
Opening Equity	433.41	433.93
Equity Addition	8.98	6.66
Reduction in equity on account of retirement	-	1.14
Closing Equity	442.39	439.44
<i>Return on Equity at beginning of year</i>	<i>60.68</i>	<i>60.75</i>

Particulars	Approved in Order	Claimed by Petitioner
<i>Return on Equity addition during year</i>	0.63	0.39
Total Return on Equity	61.31	61.14

Commission’s Analysis:

3.26.2 The Commission has considered opening equity as on 01.04.2022 equal to closing equity of FY 2021-22 as approved in truing-up and the additional equity is considered @30% of the value of net asset addition as approved above.

3.26.3 The Commission, accordingly, approves the return on equity for FY 2022-23 as detailed below;

Table 3-40 Return on Equity approved for FY 2022-23 (Rs. Crore)

Particulars	Claimed By Petitioner	Approved for Truing-Up
Opening Equity	433.93	433.93
Equity Addition	6.66	6.66
Reduction in equity on account of retirement	1.14	1.14
Closing Equity	439.44	439.44
<i>Return on Equity at beginning of year</i>	60.75	60.75
<i>Return on Equity addition during year</i>	0.39	0.39
Total Return on Equity	61.14	61.14

3.26.4 The Commission, accordingly, approves the gains/(losses) on account of return on equity for FY 2022-23 as tabulated below;

Table 3-41 RoE and Gains/(Losses) approved for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Approved in Truing-Up	Deviation	Gains/(Losses) due to Uncontrollable
Return on Equity	61.31	61.14	0.17	0.17

3.27 Income Tax

Petitioner’s Submission:

3.27.1 TPL-G (APP) has submitted that it has claimed the income tax 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. TPL-G (APP) has claimed an amount of Rs. 19.92 Crore towards income tax for FY 2022-23, as against Rs. 20.83 Crore approved in Order as detailed below;

Table 3-42 Income Tax Claimed for TPL-G (APP) for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Claimed by Petitioner
Income Tax	20.83	19.92

Commission’s Analysis:

3.27.2 The Commission had asked TPL to furnish the details of segregation of income tax paid by TPL in respect of TPL-G (APP) along with copies of challans of income tax paid. In its reply, TPL-G (APP) stated that being a single corporate entity, income tax is paid for the company as a whole and submitted copies of challans of income tax paid for the year. The Petitioner has computed the Income Tax by applying the ratio of PBT and after adjustment of tax credit.

3.27.3 The Commission has verified the PBT figures from the annual accounts for FY 2022-23. The Petitioner has shown a PBT of Rs. 115.88 Crore including Remeasurement of Defined Benefit Plans. The PBT as per standalone financial statement of TPL (including Remeasurement of Defined Benefit Plans) is Rs. 2,942.50 Crore and the total tax paid by the Company as a whole is Rs. 506.68 Crore after deducting Rs. 4.56 Crore towards income tax refund (as submitted by the Petitioner in their additional submission vide e-mail dtd. 25.04.2024) and netting off MAT credit of Rs. 123 Crore. Accordingly, the tax rate works out to 17.22% which is lower than the MAT rate of 17.47%, thus, applying the effective tax rate on PBT of TPL-D(G), the tax paid works out to be Rs. 19.95



Crore after deducting Rs. 4.56 Crore towards income tax refund and netting off MAT credit of Rs. 123 Crore. The Commission, accordingly, approves the Income Tax at Rs. 19.95 Crore in the truing up for FY 2022-23. The Commission has treated the Income Tax as an uncontrollable expense and, accordingly, approves the gains/losses on account of Income Tax in the truing up for FY 2022-23, as detailed in the Table below:

3.27.4 The Commission, accordingly, approves the income tax at Rs. 19.95 Crore for truing-up of FY 2022-23. The Commission has treated the income tax as an uncontrollable expense and accordingly, approves the gains/(losses) on account of income tax for FY 2022-23 as tabulated below;

Table 3-43 Gains / (Losses) due to Income Tax Approved for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Approved in Truing-Up	Deviation	Gains/(Losses) due to Uncontrollable
Income Tax	20.83	19.95	0.88	0.88

3.28 Non-Tariff Income

Petitioner’s Submission:

3.28.1 TPL-G (APP) has submitted that the actual Non-Tariff Income is at Rs. 18.09 Crore for FY 2022-23, as against of Rs. 13.11 Crore as approved in Order as shown table below;

Table 3-44 Non-Tariff Income claimed for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Actual
Non-Tariff Income	13.11	18.09

Commission’s Analysis:

3.28.2 As per the annual accounts for FY 2022-23, the non-tariff income of TPL-G (APP) is Rs. 20.21 Crore. The Petitioner has excluded insurance claim receipt from of Rs. 2.00 Crore.

3.28.3 The Commission, accordingly, approves the Non-Tariff Income at Rs. 20.21 Crore for FY 2022-23 after considering the insurance claim receipt as per Form-8, the deviation of Rs. 7.10 Crore, which is loss and considered as uncontrollable factor. The Commission, accordingly, approved gains/(losses) on account of non-tariff income for FY 2022-23 as tabulated below;

Table 3-45 NTI and Gains/(losses) approved for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Approved in Truing-Up	Deviation	Gains/(Losses) due to Uncontrollable
Non-Tariff Income	13.11	20.21	(7.10)	(7.10)

3.29 Incentive

Petitioner's Submission:

3.29.1 As per the GERC (MYT) Regulations, 2016, the incentive payable to a Thermal Generating Station shall be calculated in accordance with the Plant Load Factor (PLF) achieved against the normative PLF of 85%.

3.29.2 Accordingly, the incentive for the FY 2022-23 is Rs. 5.70 Crores. The working of the same is summarized below:

Table 3-46 Incentive of TPL-G for FY 2022-23 (Rs. Crore)

Particulars	Claimed by Petitioner
Scheduled Generation (MU)	2,566.87
Net Generation at 85% PLF (MU)	2,452.86
Eligible generation for incentive (MU)	114.00
Incentive (Rs. Crore)	5.70

Commission's Analysis:

3.29.3 The 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.”

3.29.4 Since, the Petitioner has achieved higher PLF than the normative PLF of 85% during FY 2022-23, the Commission has computed the incentive for truing-up for FY 2022-23 which is tabulated as under:

Table 3-47 Incentive of TPL-G for FY 2022-23 (Rs. Crore)

Particulars	Claimed by Petitioner	Approved by Commission
Scheduled Generation (MU)	2,566.87	2,566.87
Net Generation at 85% PLF (MU)	2,452.86	2,452.86
Eligible generation for incentive (MU)	114.00	114.00
Incentive (Rs. Crore)	5.70	5.70

3.30 Trued-UP ARR for FY 2022-23

3.30.1 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 2022-23. Accordingly, the Commission has computed the sharing of gains and losses for FY 2022-23, based on the truing up for each of the components discussed in the above paragraphs. The ARR approved in the order, as claimed by TPL-G (APP) and as approved in truing up for FY 2022-23 along with sharing of gains/(losses) computed in accordance with the GERC (MYT) Regulations, 2016, is given in the Table below:

Table 3-48 ARR Approved in truing up for FY 2022-23 (Rs. Crore)

Particulars	Approved in Order	Claimed By Petitioner	Approved in Truing-Up	Deviation	Gains/(Losses) due to Controllable	Gains/(Losses) due to Uncontrollable
Variable Cost	883.21	1,005.07	1,030.94	(121.86)	25.87	(147.73)
O&M Expenses	163.60	144.94	146.94	16.66	16.66	-
Water Charges	12.66	23.72	23.72	(11.06)	-	(11.06)

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Particulars	Approved in Order	Claimed By Petitioner	Approved in Truing-Up	Deviation	Gains/(Losses) due to Controllable	Gains/(Losses) due to Uncontrollable
Depreciation	50.35	50.11	50.11	0.24	-	0.24
Interest & Finance Charges	-	1.26	1.26	(1.26)	-	(1.26)
Interest on Working Capital	12.69	15.27	15.28	(2.59)	-	(2.59)
Return on Equity	61.31	61.14	61.14	0.17	-	0.17
Income Tax	20.83	19.92	19.95	0.88	-	0.88
Incentive	-	5.70	5.70	(5.70)	-	(5.70)
Less: Non-Tariff Income	13.11	18.09	20.21	(7.10)	-	(7.10)
Net ARR	1,191.54	1,309.04	1,334.83	(117.42)	42.53	(159.95)

3.31 Sharing of Gains/Losses for FY 2022-23

3.31.1 The Commission has analysed the gains/(losses) on account of uncontrollable and controllable 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.”

Petitioner’s Submission:

3.31.2 The Petitioner has submitted that variation in variable cost is mainly on account of uncontrollable factors such as change in off-take, fuel price, mix and calorific value. It also includes the variation inefficiency parameters like secondary fuel consumption, auxiliary consumption, transit loss and station heat rate, which are controllable. The entire variation on account of efficiency parameters is attributed to the controllable factors for sharing of gains/losses as per the Regulations. The variation in fuel price, mix and calorific value along with off-take are uncontrollable and accordingly, the variation in variable cost due to these factors has been treated as uncontrollable.

- 3.31.3 The Petitioner further submitted that the variation in O&M expenses should be considered as controllable except due to change in law and the factors beyond the control.
- 3.31.4 Variation in ROE, Interest expenses and depreciation on account of variation in capitalization and interest rates is to be treated as uncontrollable. Similarly, variation in income tax and non-tariff income is to be treated as uncontrollable.
- 3.31.5 Variation in the working capital requirement is mainly due to variation in the fuel cost, which is uncontrollable. Similarly, the variation in interest rate is also uncontrollable. Therefore, as per the MYT Regulations, 2016, the variation in interest on working capital is to be treated as uncontrollable.
- 3.31.6 The Petitioner further submits that any variation on account of uncontrollable factor is a part of the (gap)/ surplus identified for the year and is passed on to the consumer through adjustment in tariff as per the Regulation 23 of the MYT Regulations, 2016. In case of variation due to controllable factors, the gains and losses have to be dealt with as per Regulation 24. Based on the above, the sharing of gains/(losses) due to controllable factors as submitted by TPL-G (APP) is summarised below;

Table 3-49 Sharing of Gains/(Losses) claimed by TPL-G for FY 2022-23 (Rs. Crore)

Particulars	Pass through by Adjustment in Tariff	To be retained/ absorbed	Total
Controllable	14.84	29.69	44.53
Uncontrollable	-	-	-
Total	14.84	29.69	44.53

- 3.31.7 The following is the summary of ARR recoverable by TPL-G (APP) from TPL-D towards supply of electricity to TPL-D.

Table 3-50 Trued-up ARR claimed by TPL-G (APP) for FY 2022-23 (Rs. Crore)

Particulars	Formula	Rs. Crore
ARR as per Order	(a)	1,191.54
Gains/(Losses) due to Uncontrollable Factors	(b)	(162.03)

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Particulars	Formula	Rs. Crore
Gains/(Losses) due to Controllable Factors	(c)	44.53
Pas through as Tariff	$d=-(c/3+b)$	147.19
ARR True-Up	$e= a + b$	1,338.73

Commission’s Analysis:

3.31.8 The Commission based on the detailed analysis in earlier paragraphs has considered the gains/(losses) due to variation in the costs approved in truing up vis-à-vis costs approved for FY 2022-23 in the Tariff Order. The Commission, accordingly, considered the gains and adjusted against the ARR trued up for FY 2022-23 to arrive at the revenue (Gap)/Surplus to be carried forward into the ARR of FY 2024-25.

Table 3-51 Approved Trued up ARR incl. Gains/(Losses) for FY 2022-23 (Rs. Crore)

Particulars	Formula	Rs. Crore
ARR as per Tariff Order	(a)	1,191.54
Gains/(Losses) due to Uncontrollable Factors	(b)	(159.95)
Gains/(Losses) due to Controllable Factors	(c)	42.53
Pas through as Tariff	$d=-(c/3+b)$	145.77
ARR True-Up	$e= a + b$	1,337.31

3.31.9 The Commission approves the total ARR of Rs. 1,337.31 Crore of TPL-G (APP) for FY 2022-23 and the same is considered for working out the Power Purchased from TPL-G (APP) for FY 2022-23 in the ARR of TPL Distribution.

Chapter 4: ARR and Tariff Determination for FY 2024-25

4.1 Introduction

4.1.1 The MYT Regulations, 2016 defines control period at Regulations 2 (17) by stipulating it to be from 1st April 2016 to 31st March 2021. The Regulation 1.2 of the MYT Regulations, 2016 provides that these Regulations shall remain in force till 31st March 2021, unless otherwise reviewed/extended. The Commission, vide its order dated 20th October 2022 has directed the utilities to file the petition for truing up of FY 2021-22, ARR of FY 2023-24 and determination of tariff of FY 2023-24 as per the provisions of the MYT Regulations, 2016. Further, Commission vide its order dated 5th December 2023 has directed the utilities to file the petition for truing up of FY 2022-23, ARR of FY 2024-25, and determination of tariff of FY 2024-25 as per the provisions of the MYT Regulations, 2016 and amended thereof.

4.2 Operational Performance Parameters

4.2.1 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.

4.2.2 TPL has submitted the estimates of 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 2024-25 for individual stations. The Commission has taken up the estimates of the annual performance parameters for FY 2024-25, as discussed in the following sections.

4.3 Plant Availability Factor (PAF)

Petitioner’s Submission:

4.3.1 TPL-G (APP) has submitted that the plant availability factor for its three stations for FY 2024-25 has been computed considering annual planned shutdown without factoring forced outages factor. Accordingly, the planned maintenance days for each unit which is scheduled normally during November to February due to lower demand, is have been tabulated below;

Table 4-1 Annual Planned Maintenance of TPL-G (APP) for FY 2024-25

Sr. No.	Station	No. of Days
1	D- Station	55
2	E- Station	18
3	F- Station	12

4.3.2 Based on the above, TPL-G (APP) has projected PAF as tabulated below, which maybe undergo change due to forced outages and other unforeseen circumstances.

Table 4-2 Projected Plant Availability Factor (PAF) for FY 2024-25

Sr. No.	Station	PAF
1	D- Station	82.81%
2	E- Station	92.71%
3	F- Station	94.29%

Commission’s Analysis:

4.3.3 The Commission has analysed the submission made by the petitioner keeping in view the vintage of the machines, past performance etc. The Commission approves the PAF of each station, as projected by TPL as given in the Table below:

Table 4-3 Approved Plant Availability Factor for TPL-G (APP) for FY 2024-25

Sr. No.	Station	Projected by Petitioner	Approved by Commission
1	D- Station	82.81%	82.81%
2	E- Station	92.71%	92.71%
3	F- Station	94.29%	94.29%

4.4 Plant Load Factor (PLF)

Petitioner’s Submission:

4.4.1 TPL-G (APP) has submitted the projections of PLF based on PAF and other factors, which is tabulated as below. It has further submitted that the same may undergo change depending upon the variation in demand. TPL-G (APP) has also submitted that it has not considered any incentive for FY 2024-25 in this petition, however, the same shall be claim during True-up exercise based on actuals in accordance with the applicable Regulations. The projected PLF is tabulated as under;

Table 4-4 Projected Plant Load Factor (PLF) for FY 2024-25

Sr. No.	Station	PLF
1	D- Station	80.07%
2	E- Station	89.04%
3	F- Station	91.80%

Commission’s Analysis:

4.4.2 The Commission has noted the submission made by TPL about projection of the PLF. The Commission has accordingly approved PLF for different stations as projected, which tabulated as below:

Table 4-5 Approved Plant Load Factor for TPL-G (APP) for FY 2024-25

Sr. No.	Station	Projected by Petitioner	Approved by Commission
1	D- Station	80.07%	80.07%
2	E- Station	89.04%	89.04%
3	F- Station	91.80%	91.80%

4.5 Auxiliary Consumption

Petitioner’s Submission:

- 4.5.1 TPL has projected the auxiliary consumption for all the stations for FY 2024-25 based on the principle and methodology enunciated in MYT Regulations, 2016 as given in table below;

Table 4-6 Projected Auxiliary Consumption for FY 2024-25

Sr. No.	Station	Auxiliary Consumption
1	D- Station	9.00%
2	E- Station	9.00%
3	F- Station	9.00%

Commission’s Analysis:

- 4.5.2 The Commission has analysed the submission made by the petitioner on vintage of the machines, past performance etc. accordingly approves auxiliary consumption norms for different stations on the basis of the GERC (MYT) Regulations, 2016 as given in the Table below:

Table 4-7 Approved Auxiliary consumption for TPL-G (APP) for FY 2024-25

Sr. No.	Station	Projected by Petitioner	Approved by Commission
1	D- Station	9.00%	9.00%
2	E- Station	9.00%	9.00%
3	F- Station	9.00%	9.00%

- 4.5.3 The Commission may revise the norms for the auxiliary energy consumption for the above, mentioned generating stations in case of Renovation and Modernization of the generating stations as envisaged in Regulation 53.7 (b) of the GERC (MYT) Regulations, 2016.

4.6 Station Heat Rate (SHR)

Petitioner’s Submission:

- 4.6.1 TPL has projected the SHF for all the stations for FY 2024-25 based on the principle and methodology enunciated in MYT Regulations, 2016 as given in table below;

Table 4-8 Projected Station Heat Rate (SHR) for FY 2024-25

Sr. No.	Station	SHR (Kcal/kWh)
1	D- Station	2,450
2	E- Station	2,455
3	F- Station	2,455

Commission’s Analysis:

- 4.6.2 The SHR proposed for all the Stations are in accordance as per Regulation 53.3(b) of GERC MYT Regulations, 2016, therefore, the Commission approves the same for FY 2024-25. However, the Commission may revise the norms for the SHR for the above, mentioned generating stations in case of Renovation and Modernization of the generating stations as envisaged in Regulation 53.3 (b) of the GERC (MYT) Regulations, 2016.

Table 4-9 Approved Station Heat Rate (SHR) for FY 2024-25

Sr. No.	Station	SHR (Kcal/kWh)
1	D- Station	2,450
2	E- Station	2,455
3	F- Station	2,455

4.7 Secondary Fuel Oil Consumption (SFC)

Petitioner’s Submission:

- 4.7.1 TPL-G (APP) has projected SFC at the levels specified by the Commission in the GERC MYT Regulations, 2016 as shown in the Table below for each station:

Table 4-10 Projected Secondary Fuel Oil Consumption for FY 2024-25

Sr. No.	Station	SFC (ml/kWh)
1	D- Station	1.00
2	E- Station	1.00
3	F- Station	1.00

Commission’s Analysis:

4.7.2 The SFC proposed for all the Stations are in accordance as per Regulation 53.5(C) of GERC MYT Regulations, 2016, therefore, the Commission approves the same for FY 2024-25. However, the Commission may revise the norms for the SFC for the above, mentioned generating stations in case of Renovation and Modernization of the generating stations as envisaged in Regulation 53.5 (C) of the GERC (MYT) Regulations, 2016.

Table 4-11 Approved Secondary Fuel Oil Consumption for FY 2024-25

Sr. No.	Station	SFC (ml/kWh)
1	D- Station	1.00
2	E- Station	1.00
3	F- Station	1.00

4.8 Transit Loss

Petitioner’s Submission:

4.8.1 TPL has projected transit loss of coal for FY 2024-25 based on the principle and the methodology enunciated in the MYT Regulation, 2016 as given in the Table below:

Table 4-12 Projected Transit loss of coal for FY 2024-25

Station	Transit Loss
All Stations	0.80%

Commission’s Analysis:

4.8.2 Presently TPL-G (APP) has proposed transit loss for all the stations at the levels approved by the Commission in the GERC MYT Regulations, 2016, accordingly, the Commission approves the same.

Table 4-13 Approved Transit loss of coal for FY 2024-25

Station	Transit Loss
All Stations	0.80%

4.9 Summary of Performance Parameters approved for FY 2024-25

4.9.1 Based on the decisions in the earlier paragraphs the performance parameters approved by the Commission for FY 2024-25 for different stations are summarized as tabulated below;

Table 4-14 Performance parameters of TPL-G stations approved for FY 2024-25

Station	PAF (%)	PLF (%)	Aux. Consumption (%)	Station Heat rate (Kcal/kWh)	SFC (gm/kWh)	Transit Loss (%)
D-Station	82.81%	80.07%	9.00%	2,450	1.00	0.80%
E-Station	92.71%	89.04%	9.00%	2,455	1.00	0.80%
F-Station	94.29%	91.80%	9.00%	2,455	1.00	0.80%

4.10 Gross and Net Generation

4.10.1 The gross and net generation for different power stations of TPL-G (APP) as projected and approved based on the permissible parameters as discussed in the earlier paragraphs are as given in Table below:

Table 4-15 Gross and Net Generation Approved for FY 2024-25

Particulars	Projected	Approved
D-Station		
Capacity (MW)	120	120
PLF (%)	80.07%	80.07%
Gross Generation (MU)	841.74	841.74
Auxiliary Consumption (%)	9.00%	9.00%
Auxiliary Consumption (MU)	75.76	75.76

Particulars	Projected	Approved
Net Generation (MU)	765.98	765.98
E-Station		
Capacity (MW)	121	121
PLF (%)	89.04%	89.04%
Gross Generation (MU)	943.78	943.78
Auxiliary Consumption (%)	9.00%	9.00%
Auxiliary Consumption (MU)	84.94	84.94
Net Generation (MU)	858.84	858.84
F-Station		
Capacity (MW)	121	121
PLF (%)	91.80%	91.80%
Gross Generation (MU)	973.00	973.00
Auxiliary Consumption (%)	9.00%	9.00%
Auxiliary Consumption (MU)	87.57	87.57
Net Generation (MU)	885.43	885.43
TPL-G (APP)		
Gross Generation (MU)	2,758.52	2,758.52
Auxiliary Consumption (MU)	248.27	248.27
Net Generation (MU)	2,510.25	2,510.25

4.11 Cost Parameters

Petitioner's Submission:

- 4.11.1 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 Wt. Av. GCV of mix of coal and Wt. Av price of fuel for different stations, as discussed below for FY 2024-25.
- 4.11.2 TPL-G (APP) has submitted that the estimates of fuel cost is being computed by considering actual PLF, Station Heat Rate and cost of calorific value of fuel for FY 2024-25 and has furnished the details of percentages of the mix of indigenous and imported coal in its coal-based power stations, the actual Wt. Av. Gross Calorific Value of fuels, Wt. Av. Price per unit and Cost/MT of different fuels for all the stations for FY 2024-25.

4.11.3 The calorific value of primary & secondary fuel is shown in the table below for the approval of the Hon’ble Commission.

Table 4-16 Gross Calorific Value of Fuel for FY 2024-25

Particulars	FY 2024-25
Indigenous Coal (Kcal/Kg)	4,002
Imported Coal (Kcal/Kg)	4,750
Secondary Fuel Oil (Kcal/L)	10,106

4.11.4 The price of primary and secondary fuel considered for FY 2024-25 is as under:

Table 4-17 Price of Fuel for FY 2024-25

Particulars	FY 2024-25
Indigenous Coal (Rs./Tonne)	5,151.09
Imported Coal (Rs./Tonne)	9,325.47
Secondary Fuel Oil (Rs./K.Litre)	55,983.71

Commission’s Analysis:

4.11.5 The Commission has analysed the submission of TPL in respect to Wt. Av. GCV of fuels, percentage mix of coal and price of fuels for individual stations and the Commission has computed Wt. GCV of coal by considering the GCV of fuels for each station for FY 2024-25. However, the Commission has considered fuel wise and station wise fuel purchase price of FY 2022-23 for the purpose of calculating fuel cost for FY 2024-25 as shown in table below;

Table 4-18 Cost Parameters approved of different Fuels for FY 2024-25

Particulars	Projected by Petitioner			Approved by Commission		
	D-Station	E-Station	F-Station	D-Station	E-Station	F-Station
Indigenous Coal (%)	72.50%	75.06%	75.64%	79.15%	86.59%	90.74%
Imported Coal (%)	27.50%	24.94%	24.36%	20.85%	13.41%	9.26%
Indigenous Coal (Rs/MT)	5,569	5,569	5,569	5,997	6,027	6,029
Imported Coal (Rs/MT)	9,147	9,147	9,147	11,749	11,670	11,660
Oil (Rs/KL)	55,984	55,984	55,984	59,421	58,907	59,812
GCV of Coal (K.Cal/Kg)	4,208	4,189	4,184	4,630	4,653	4,661
GCV of Coal (K.Cal/L)	10,106	10,106	10,106	10,147	10,134	10,070

4.12 Fuel Costs

4.12.1 Based on the performance and cost parameters, the normative fuel costs for each of the stations of TPL-G (APP) are as given below;

Table 4-19 Approved Fuel Cost of TPL-G (APP) for ARR of FY 2024-25

Station	As per Projected Submitted by TPL				As Approved by the Commission			
	Gross Gen. (MU)	Net Gen. (MU)	Fuel Cost (Rs. Crore)	Fuel Cost (Rs./kWh)	Gross Gen. (MU)	Net Gen. (MU)	Fuel Cost (Rs. Crore)	Fuel Cost (Rs./kWh)
D-Station	841.70	765.94	311.73	4.07	841.70	765.94	311.44	4.07
E-Station	943.79	858.85	348.72	4.06	943.79	858.85	329.65	3.84
F-Station	973.04	885.47	359.20	4.06	973.04	885.47	328.03	3.70

4.12.2 Any difference in fuel cost during the financial year due to variation in cost parameters is to be passed on to the consumers as per approved FPPPA formula as per GERC MYT Regulations, 2016.

Table 4-20 Total Fuel Cost approved for TPL-G (APP) for FY 2024-25 (Rs. Crore)

Particulars	As per Claimed	Approved
Total Fuel Cost	1,019.66	969.12

4.13 Operation & Maintenance (O&M) Expenses

Petitioner's Submission:

4.13.1 TPL-G (APP) has submitted it has projected O&M expenses for FY 2024-25 as per the stipulated trajectory of O&M expenses in GERC MYT Regulations, 2016 by considering approved O&M expenses of last 3 years (i.e., FY 2020-21 to FY 2022-23) with FY 2021-22 as base year and escalating by 5.72% per annum.

4.13.2 Further, Petitioner has submitted that the variation in O&M expenses does not consider the uncontrollable expenses such as the wage revision, change in law, change in levies/duties/taxes and charges, etc. and requested these components of uncontrollable factors and any such expenses on account of

these factors are to be allowed over and above the normal allowable components.

Table 4-21 O&M Expenses claimed by of TPL-G (APP) for FY 2024-25 (Rs. Crore)

Particulars	Projected by Petitioner
Operation & Maintenance Expenses	163.67

Commission’s Analysis:

4.13.3 As per GERC MYT Regulations, 2016 for projecting O&M expenses for FY 2024-25, the Commission has considered the actual O & M Expenses for FY 2020-21 to FY 2022-23. The average of these three years expenses considered to be O&M Expenses of FY 2021-22. The O&M Expenses arrived for FY 2021-22 are escalated @ 5.72% year-on-year to arrive at O&M Expenses for FY 2024-25 at Rs. 164.46 Crore.

4.13.4 The Commission, accordingly, approves the O&M expenses for FY 2024-25 as given hereunder;

Table 4-22 O&M Expenses approved by the Commission for FY 2024-25 (Rs. Crore)

Particulars	Claimed in Petition	Approved by Commission
Operation & Maintenance Expenses	163.67	164.46

4.14 Water Charges

Petitioner’s Submission:

4.14.1 TPL-G (APP) has projected Rs. 26.11 Crore towards water charges for FY 2024-25.

Commission’s Analysis:

4.14.2 The Commission provisionally considers the water charges at Rs. 23.72 Crore for FY 2024-25 based on the actual expenses allowed in FY 2022-23 in terms of Regulation 54(b) of GERC MYT Regulations, 2016.

Table 4-23 Water Charges Approved for FY 2024-25 (Rs. Crore)

Particulars	Projected by Petitioner	Approved by Commission
Water Charges	26.61	23.72

4.15 Capital Expenditure

Petitioner’s Submission:

4.15.1 TPL-G (APP) submitted that to ensure smooth and consistent operations with higher level of efficiency periodical capex is needed on account of upgradation and modernisation of the plants. Petitioner has projected capital expenditure of Rs. 109.15 Crore for FY 2024-25, as per the details given in table below;

Table 4-24 CAPEX Projected by TPL-G (APP) For FY 2024-25 (Rs. Crore)

Particulars	Claimed by Petitioner
Normal Capital Expenditure	
Boiler works	11.28
Turbine works	45.71
Electrical works	28.88
C&I works	3.79
Civil works	4.10
CHP works	7.75
Others	4.83
Sub Total	106.34
Miscellaneous	2.81
Grand Total	109.15

4.15.2 The Petitioner has furnished the details of major capital expenditure as given below;

Boiler Works: Capex planned for FY 2024-25 towards (i) Replacement of BTG pressure parts, (ii) Replacement of raw coal (RC) variator and mill components, (iii) Replacement of Coal air pipe, mill body, gear set, Raw coal variator (RCV) and (iv) Ash line replacement, Ash slurry pump spares, Bottom Ash Hopper (BAH) gate, Ash Pond reverse water project.

Turbine Works: Capex planned for FY 2024-25 towards D station turbine/generator major overhauling was to be initiated and completed during FY 2023-24. However, due to SLDC directions of deferment in shutdown, the capex has been deferred to FY 2024-25. Further, it is also proposed to initiate preparatory work for overhauling of F station during FY 2024-25. Additionally, capex is also proposed towards refurbishment of cooling tower and pumps.

Electrical Works: Capex is planned for FY 2024-25 towards rewinding of D & E station Generator Transformer (GT), rewinding of E station Interconnecting Transformer (ICT) -1, replacement of Digital Automatic Voltage Regulator (DAVR) of D station, Procurement and replacement of ABT Meters and associated communication parts, lighting protection systems, amongst others.

Control & Instrumentation Works: The activity for D station ABB DCS HMI Upgradation due to HMI Hardware obsolescence was initiated during FY 2023-24. Same shall be continued during FY 2024-25. Capex shall also be incurred towards upgradation of Steam and Water Analysis System (SWAS) of D/E/F station, Upgradation of enviro monitoring & combustion analyzers, and outdated hydraulic turbine control system amongst others.

CHP Works: Expenditure is proposed towards CHP and its ancillary systems like dozer, loco, mobile crane, DG set and mobile vacuum plant.

Capital Expenditure has also been planned towards supply and installation of sewage treatment plant to reutilize plant sewage water, instruments for coal, water and other analysis, installation of Continuous Ambient Air Quality Monitoring Station (CAAQMS) for measurement of different ambient air parameters along with its online data connectivity. Expenditure is also

planned towards water distribution pipeline, material storage, and fire and safety equipment, amongst others.

Miscellaneous: Capex planned towards mass communication related items, office equipment and facility works and IT assets.

4.15.3 TPL-G (APP) further submitted that the Ministry of Environment & Forests (MoEF) has revised the environmental norms for thermal power plants vide its notification dated 07.12.2015 and subsequently given extension to plants to comply with the requirements till 31.12.2027. Accordingly, the Petitioner has not considered any capex towards compliance with MoEF notification in the present petition and shall approach the Commission at appropriate stage.

4.15.4 The Petitioner has projected Rs. 123.08 Crore towards capitalisation for FY 2024-25 and furnished the project/work-wise details of capitalisation in form 4.3 to the petition.

Commission’s Analysis:

4.15.5 The Petitioner has projected capex of Rs. 109.15 Crore for FY 2024-25 as detailed in Table 4.24 above along with justification for the capex projected for FY 2024-25.

4.15.6 The Commission opines that in order to operate the generating plants efficiently to meet the normative operational parameters and to ensure smooth and consistent operations with higher level of efficiency. The Capex planned by the Petitioner is needed and accordingly provisionally approves the Capex of Rs. 109.15 Crore for FY 2024-25 as projected by the Petitioner (Table 4.24 above).

4.15.7 The Commission observed that during previous five years i.e., FY 2018-19 to FY 2022-23, the Petitioner has capitalised close to 99.98% amount to capital

expenditure approved for the respective financial years. Thus, for FY 2024-25, the Commission accordingly approves the capitalisation of Rs. 109.12 Crore.

4.15.8 The Commission has approved closing GFA of Rs. 1,174.85 Crore in true-up of FY 2022-23 and the same is considered as opening GFA for FY 2023-24, further, the Commission has considered capitalisation of Rs. 83.60 Crore as approved in Tariff Order for FY 2023-24 and arrived at closing GFA for FY 2023-24 at Rs. 1,258.45 Crore and the same is considered as opening GFA for FY 2024-25.

4.15.9 The Commission, as deliberated above has considered the opening GFA, additions during the year and closing GFA for FY 2024-25 as given in table below;

Table 4-25 Gross Fixed Assets approved for FY 2024-25 (Rs. Crore)

Sr. No.	Particulars	Claimed by Petitioner	Approved by Commission
1	Opening GFA	1,194.22	1,258.45
2	Assets additions during year	123.08	109.12
3	Closing GFA	1,317.30	1,367.57

4.15.10 The Commission in terms of GERC MYT Regulations, 2016 has approved the funding of capitalisation for normative debt-equity as tabulated under;

Table 4-26 Approved Capitalisation for FY 2024-25 (Rs. Crore)

Particulars	Claimed by Petitioner	Approved by Commission
Opening GFA	1,194.22	1,258.45
Addition to GFA	123.08	109.12
Closing GFA	1,317.30	1,367.57
Capitalisation	123.08	109.12
Normative Debt @70%	86.16	76.38
Normative Equity @30%	36.92	32.74

4.16 Depreciation

Petitioner’s Submission:

4.16.1 The Petitioner has projected Rs. 52.37 Crore towards depreciation for FY 2024-25.

Commission’s Analysis:

4.16.2 The Commission has approved closing GFA of Rs. 1,174.85 Crore in true-up of FY 2022-23 and the same is considered as opening GFA for FY 2023-24, further, the Commission has considered capitalisation of Rs. 83.60 Crore as approved in Tariff Order for FY 2023-24 and arrived at closing GFA for FY 2023-24 at Rs. 1,258.45 Crore and the addition of GFA for FY 2024-25 is considered based on the capitalisation approved for FY 2024-25.

4.16.3 The rate of depreciation on assets is considered as actual rates for FY 2022-23 and accordingly computed the depreciation for FY 2024-25 as tabulated below;

Table 4-27 Depreciation approved for FY 2024-25 (Rs. Crore)

Particulars	Claimed by Petitioner	Approved by Commission
Opening value of depreciable GFA	1,194.22	1,258.45
Addition during year	123.08	109.12
Closing GFA	1,317.30	1,367.57
Average depreciable assets	1,255.76	1,313.01
Depreciation allowed in ARR	52.37	56.44

4.17 Interest Expenses

Petitioner’s Submission:

4.17.1 TPL-G (APP) has considered the interest expenses as per the MYT Regulations, 2016. Further the Petitioner has calculated the interest expenses by applying the estimated weighted average rate of interest of the loan portfolio of the

Petitioner at the beginning of the year while repayment has been considered equal to the depreciation of the assets for the year.

Table 4-28 Interest on loans projected by TPL-G (APP) for FY 2024-25 (Rs. Crore)

Particulars	Claimed By Petitioner
Opening Balance of Loans	-
Loan addition during the year	86.16
Deletion	-
Repayments during the year	52.37
Closing Balance of Loans	33.79
Average Loans	16.89
Rate of Interest (%)	8.55%
Interest Expense	1.44

Commission’s Analysis:

4.17.2 The Commission has approved the normative closing loan balance as NIL in truing-up for FY 2022-23. Addition to loan during FY 2024-25 is considered at 70% of net value of assets added during the year and repayment is considered equal to the depreciation for the year. Further, the Commission has considered the actuals of FY 2022-23 as the weighted Avg. Interest Rate which was 7.62%, while computing the Interest expenses. The Commission, accordingly, approves Rs. 1.23 Crore interest on loan for FY 2024-25.

Table 4-29 Interest on loans approved for FY 2024-25 (Rs. Crore)

Particulars	Claimed By Petitioner	Approved by Commission
Opening Balance of Loans	-	6.18
Loan addition during the year	86.16	76.38
Deletion	-	-
Repayments during the year	52.37	56.44
Closing Balance of Loans	33.79	26.12
Average Loans	16.90	16.15
Rate of Interest (%)	8.55%	7.62%
Interest Expense	1.44	1.23

4.18 Interest on Working Capital

Petitioner’s Submission:

4.18.1 The Petitioner has submitted that interest on working capital is computed as per the MYT Regulations, 2016 and the interest rate of 11.00%, being the SBI MCLR rate on 1st April 2023 plus 250 basis points, is applied on the working capital requirement arrived at in accordance with the Regulations. The Petitioner has computed the working capital requirement and interest thereon as shown in table below;

Table 4-30 Interest on Working Capital Claimed for FY 2024-25 (Rs. Crore)

Particulars	Claimed By Petitioner
Cost of Coal for 1.5 Months	128.31
Secondary fuel oil for 2 months	2.52
O&M expenses for 1 month	13.64
Maintenance Spares @1% of GFA	11.94
Working Capital Requirement	156.41
Rate of Interest (%)	11.00%
Interest on Working Capital	17.21

Commission’s Analysis:

4.18.2 Regulation 40.1 of GERC (MYT) Regulations 2006 specify the norms for thermal generating stations for computation of working capital requirement and interest on working capital thereon. According to the regulations the working capital requirement comprises of 1 and ½ month of coal cost, 1 month cost of oil, 2 months’ secondary fuel oil cost, 1-month O&M expenses, maintenance spares at 1% of historical cost of GFA and receivables equivalent to 1 month. Regulations specify that *in case of own generating stations, no amount shall be allowed towards receivables, to the extent of supply of power by the Generation Business to the Retail Supply Business, in the computation of working capital in accordance with these Regulations.* As such receivables equivalent to one month is not considered for working capital requirement.

4.18.3 In line with proviso to Regulation 40.1 (d) of GERC MYT Regulations, 2016, the Commission has considered rate of interest at 11.00% being the 1-year SBI MCLR as on 1st April 2023 (8.50%) including 250 basis points.

4.18.4 The working capital and interest thereon calculated for FY 2024-25 is tabulated as under:

Table 4-31 Interest on Working Capital approved for FY 2024-25 (Rs. Crore)

Particulars	Claimed By Petitioner	Approved by Commission
Cost of Coal for 1.5 Months	128.31	121.92
Secondary fuel oil for 2 months	2.52	2.67
O&M expenses for 1 month	13.64	13.70
Maintenance Spares @1% of GFA	11.94	12.58
Working Capital Requirement	156.41	150.88
Rate of Interest (%)	11.00%	11.00%
Interest on Working Capital	17.21	16.60

4.19 Return on Equity

Petitioner's Submission:

4.19.1 TPL-G (APP) has projected Rs. 64.92 Crore towards return on equity @14% for FY 2024-25.

Table 4-32 Return on Equity projected by TPL-G (APP) for FY 2024-25 (Rs. Crore)

Particulars	Claimed By Petitioner
Opening Equity	445.26
Equity Addition	36.92
Closing Equity	482.18
Return on Equity @ 14%	64.92

Commission's Analysis:

4.19.2 The Petitioner has adopted opening equity of Rs. 445.26 Crore for FY 2024-25. The Commission has approved the closing equity at Rs. 439.44 Crore in truing-up of FY 2022-23 and the same is considered as opening equity for FY 2023-

24. The addition to equity is further updated based on capitalisation approved for FY 2023-24 in Tariff Order dated 31.03.2023 and capitalisation approved for FY 2024-25.

4.19.3 The Commission, accordingly, computed the return on equity for FY 2024-25 as detailed below;

Table 4-33 Return on Equity approved for FY 2024-25 (Rs. Crore)

Particulars	Claimed By Petitioner	Approved by Commission
Opening Equity	445.26	464.52
Equity Addition	36.92	32.74
Closing Equity	482.18	497.26
<i>Return on Equity at beginning of year</i>	<i>62.34</i>	<i>65.03</i>
<i>Return on Equity addition during year</i>	<i>2.58</i>	<i>2.29</i>
Total Return on Equity	64.92	67.32

4.20 Income Tax

Petitioner’s Submission:

4.20.1 TPL-G (APP) has projected the income tax at Rs. 19.92 Crore based on the actual tax paid for FY 2022-23 and in proportion to the PBT of TPL-G (APP).

Commission’s Analysis:

4.20.2 The Commission has approved Rs. 19.95 Crore towards income tax in true-up of FY 2022-23 and accordingly has provisionally considered Rs. 19.95 Crore towards income tax for FY 2024-25 in terms of Regulation 41.1 subject to true up based on the actual tax paid for the relevant financial year as specified in Regulation 41.2 of GERC MYT Regulations, 2016.

4.21 Non-Tariff Income

Petitioner’s Submission:

4.21.1 TPL-G (APP) has projected Non-Tariff Income at Rs. 18.09 Crore for FY 2024-25 considering the current trend.

Commission’s Analysis:

4.21.2 Accordingly, the Commission has considered the non-tariff income as equal to the same as approved in truing-up for FY 2022-23 to the tune of Rs. 20.21 Crore.

4.22 Aggregate Revenue Requirement (ARR) for FY 2024-25

Petitioner’s Submission:

4.22.1 TPL-G (APP) has projected net ARR for FY 2024-25 as shown in table below:

Table 4-34 ARR of TPL-G (APP) for FY 2024-25 (Rs. Crore)

Particulars	Claimed By Petitioner
Variable Cost	1,019.66
Water Charges	26.11
O&M Expenses	163.67
Depreciation	52.37
Interest & Finance Charges	1.44
Interest on Working Capital	17.21
Return on Equity	64.92
Income Tax	19.92
Less: Non-Tariff Income	18.09
Net ARR	1,347.20

Commission’s Analysis:

4.22.2 The Commission based on the costs/expenses approved in the preceding paragraphs has computed the ARR give in table below;

Table 4-35 ARR Approved for FY 2024-25 (Rs. Crore)

Particulars	Claimed By Petitioner	Approved by Commission
Variable Cost	1,019.66	969.12
O&M Expenses	163.67	164.46
Water Charges	26.11	23.72
Depreciation	52.37	56.44
Interest & Finance Charges	1.44	1.23
Interest on Working Capital	17.21	16.60
Return on Equity	64.92	67.32
Income Tax	19.92	19.95
Less: Non-Tariff Income	18.09	20.21
Net ARR	1,347.20	1,298.63
Total Fixed Charges	327.54	329.51
Total variable Charges	1,019.66	969.12

4.23 Determination of Fixed Charges for FY 2024-25

4.23.1 The Commission has approved total fixed charges at Rs. 329.51 Crore for FY 2024-25.

4.24 Determination of Variable Charges for FY 2024-25

4.24.1 The table given below gives the station wise energy charges for FY 2024-25.

Table 4-36 Approved variable charges for TPL-G (APP) FY 2024-25

Particulars	Fuel cost approved for FY 2024-25 (Rs. Crore)	Fuel cost per unit Gross (Rs./kWh)	Fuel cost per unit Net (Rs./kWh)
D Station	311.44	3.70	4.07
E Station	329.65	3.49	3.84
F Station	328.03	3.37	3.70
Total	969.12	3.51	3.86

Chapter 5: Compliance of Directives

5.1 Earlier Directives

Directive No. 1 Phasing out plan for generating units

The Commission has directed the Petitioner to submit final plan for phasing out, if any, for its generating units and explore cost effective option for replacing such capacity.

Petitioner's Compliance:

TPL-G (APP) has submitted that it will review the overall situation and keep the commission apprised on the same.

Commission's Comment:

The Commission has noted the submission of the Petitioner.

Directive No. 2 Submission of final proposal with respect to Capex requirement for meeting environment norms

The Commission has directed the Petitioner to submit a consolidated plan for Capex for FGD for TPL-G (APP) along with cost benefit analysis with respect to consumers.

Petitioner's Compliance:

TPL-G (APP) has submitted that due to small size of projects and Covid-19 situation, no response has been received from the vendors. Further, as per the revised notification of MOEF dated 05.09.2022, exemption is given till 31.12.2027 from SOX emission norms. Considering these aspects, the Petitioner shall assess the requirement and approach the Commission in due course.

Commission's Comment:

The Commission has noted the submission of the Petitioner.

COMMISSION'S ORDER

The Commission approves the Aggregate Revenue Requirement for TPL-G (APP) for FY 2024-25, as shown in the Table below:

Approved ARR for TPL-G (APP) for FY 2024-25 (Rs. Crore)

Particulars	FY 2024-25
Variable Cost	969.12
O&M Expenses	164.46
Water Charges	23.72
Depreciation	56.44
Interest & Finance Charges	1.23
Interest on Working Capital	16.60
Return on Equity	67.32
Income Tax	19.95
Less: Non-Tariff Income	20.21
Net ARR	1,298.63

This order shall come into force with effect from 1st June, 2024.

-Sd-
S. R. Pandey
Member

-Sd-
Mehul M. Gandhi
Member

-Sd-
ANIL MUKIM
Chairman

Place: Gandhinagar

Date: 01.06.2024



Torrent Power Limited – Generation
Truing up for FY 2022-23 and Determination of Tariff for FY 2024-25

Annexure 1 Approved Fuel Costs for FY 2022-23 for True up D,E & F – Station

Item	Derivation	Unit	D-Station	E-Station	F-Station
Total Capacity	A1	MW	120.00	121.00	121.00
Actual PLF	A2	%	85.43%	90.06%	89.18%
Gross Generation	A	MUs	898	955	945
Auxiliary Consumption	C	%	9.00%	9.00%	9.00%
Auxiliary Consumption	B	MUs	81	86	85
Net Generation	Y=A - B	MUs	817	869	860
Station Heat Rate	D	KCal/KWH.	2,450	2,455	2,455
Sp. Oil Consumption	E	ml/kWh	1	1	1
Gross Calorific Value of Coal	F	kcal/kg	4,630	4,653	4,661
Calorific value of Oil	G	kcal/l	10,147	10,134	10,070
Overall Heat	H=A x D	G Cal	22,00,274	23,43,644	23,20,745
Heat from Oil	I=(A x E x G)/1000	G Cal	9,112	9,674	9,519
Heat from Coal	J=H-I	G Cal	21,91,162	23,33,970	23,11,226
Transisit losses	K	%	0.80%	0.80%	0.80%
Coal Blend					
A) Indigenous Coal	X1	%	79.15%	86.59%	90.74%
C) Imported Coal	X3	%	20.85%	13.41%	9.26%
Actual Oil Consumption	L=A x E	MT	898	955	945
Actual Coal Consumption	M=(J X 1000)/F	MT	4,73,239	5,01,581	4,95,872
A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	3,77,596	4,37,828	4,53,598
C) Imported Coal	Q3=M* X X3	MT	98,663	67,255	45,903
Price of Coal					
A) Indigenous Coal	P1	Rs/MT	5,997	6,027	6,029
C) Imported Coal	P3	Rs/MT	11,749	11,670	11,660
Price of Oil	P4	Rs/KL	59,421	58,907	59,812
Coal cost					
A) Indigenous Coal	N1=Q1 X P1	Rs Lakh	22,643	26,387	27,347
B) Imported Coal	N3=Q3 X P3	Rs Lakh	11,591	7,849	5,352
Total Coal Cost	N4=N1+N3	Rs Lakh	34,234	34,236	32,700
Oil Cost	N5=P4 x L/10 ⁵	Rs Lakh	534	562	565
Other Charges		Rs Lakh	(134)	(157)	(195)
Total Fuel Cost	O=N4 + N5	Rs Lakh	34,634	34,641	33,070
Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.86	3.63	3.50
Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	4.24	3.99	3.84
Cost of fuel/KCal	R=(O/H)*10 ⁵	Rs/Gcal	1,574	1,478	1,425
Actual Net Generation	Y	MUs	821	879	866
Gross Gen at 85 % PLF			894	901	901
Net Generation			813	820	820
Coal Cost			34,061	32,311	31,166
Oil Cost			531	531	539
Nor. Fuel Cost for act. Gen	S=Q*Y/10	Rs. Crore	348	350	333



Torrent Power Limited – Generation
Truing up for FY 2022-23 and Determination of Tariff for FY 2024-25

Annexure 2 Approved Fuel Costs for FY 2024-25 for True up D,E & F – Station

Item	Derivation	Unit	D-Station	E-Station	F-Station
Total Capacity	A1	MW	120.00	121.00	121.00
PLF	A2	%	80.07%	89.04%	91.80%
Gross Generation	A	MUs	842	944	973
Auxiliary Consumption	C	%	9.00%	9.00%	9.00%
Auxiliary Consumption	B	MUs	76	85	88
Net Generation	Y=A - B	MUs	766	859	885
Station Heat Rate	D	KCal/KWH.	2,450	2,455	2,455
Sp. Oil Consumption	E	ml/kWh	1	1	1
Gross Calorific Value of Coal	F	kcal/kg	4,630	4,653	4,661
Calorific value of Oil	G	kcal/l	10,147	10,134	10,070
Overall Heat	H=A x D	G Cal	20,62,256	23,16,988	23,88,704
Heat from Oil	I=(A x E x G)/1000	G Cal	8,541	9,564	9,798
Heat from Coal	J=H-I	G Cal	20,53,716	23,07,424	23,78,906
Transisit losses	K	%	0.80%	0.80%	0.80%
Coal Blend					
A) Indigenous Coal	X1	%	79.15%	86.59%	90.74%
C) Imported Coal	X3	%	20.85%	13.41%	9.26%
Oil Consumption	L=A x E	MT	842	944	973
Coal Consumption	M=(J X 1000)/F	MT	4,43,553	4,95,876	5,10,392
A) Indigenous Coal	Q1=M* x X1/(1-K)	MT	3,53,911	4,32,848	4,66,880
C) Imported Coal	Q3=M* X X3	MT	92,474	66,490	47,247
Price of Coal					
A) Indigenous Coal	P1	Rs/MT	5,997	6,027	6,029
C) Imported Coal	P3	Rs/MT	11,749	11,670	11,660
Price of Oil	P4	Rs/KL	59,421	58,907	59,812
Coal cost					
A) Indigenous Coal	N1=Q1 X P1	Rs Lakh	21,223	26,087	28,148
B) Imported Coal	N3=Q3 X P3	Rs Lakh	10,864	7,759	5,509
Total Coal Cost	N4=N1+N3	Rs Lakh	32,087	33,846	33,657
Oil Cost	N5=P4 x L/10^5	Rs Lakh	500	556	582
Other Charges		Rs Lakh	(1,443)	(1,438)	(1,436)
Total Fuel Cost	O=N4 + N5	Rs Lakh	31,144	32,965	32,803
Fuel Cost/Unit Gross	P=O/(A*10)	Rs/kWh	3.70	3.49	3.37
Fuel Cost/Unit Net	Q=O/(Y*10)	Rs/kWh	4.07	3.84	3.70
Cost of fuel/Kcal	R=(O/H)*10^5	Rs/Gcal	1,510	1,423	1,373
Net Generation	Y	MUs	766	859	885
Gross Gen at 85 % PLF			894	901	901
Net Generation			813	820	820
Coal Cost			34,061	32,311	31,166
Oil Cost			531	531	539
Nor. Fuel Cost for Generation	S=Q*Y/10	Rs. Crore	311	330	328