

Tripura State Electricity Corporation Limited

Multi Year Tariff Petition for Generation, Transmission and Distribution business for MYT period of FY 24-25 and 25-26

29 November 2024

Filed By



Tripura State Electricity Corporation
Bidyut Bhawan, Banamalipur
Agartala, Tripura (W)

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1. Form -1: Petition

BEFORE THE HON'BLE TRIPURA ELECTRICITY REGULATORY COMMISSION, AGARTALA

File No.

Case No.

IN THE MATTER OF

Filing of the MYT Tariff Petition for FY 2024-25 to FY 2025-26 by Tripura State Electricity Corporation Limited (TSECL) under TERC MYT Regulations 2015 for generation business, transmission business and under TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 for distribution and retail supply business along with other guidelines and directions issued by the TERC from time to time and under Section 62 of the Electricity Act, 2003 read with the relevant Guidelines.

The TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023, was issued on 15.03.2023. The Truing up Petition consider this notified Tariff Regulation for the distribution and retail supply business.

AND

IN THE MATTER OF

Tripura State Electricity Corporation Limited (hereinafter referred to as "TSECL" or the "utility") -
PETITIONER.

The applicant respectfully submits hereunder:

1. The power supply industry in Tripura had been under the control of the State Government till 31st December 2004. As part of the power sector reforms, Tripura State Electricity Corporation Limited (TSECL) was formed and registered under the Companies Act 1956 on 9th June 2004, in compliance with the MOU among Ministry of Power, Government of India & Government of Tripura on 28th day August 2003. TSECL was made functional, under section 131 & 133 of the Indian Electricity Act 2003, w.e.f. 1st January 2005 with the operational control of all assets related to Generation, Transmission, Distribution & its allied activities related to power sector of Tripura transferred to TSECL from Government of Tripura. This was done with the objective of improving the efficiency of services in this sector.
2. In continuation with this reforms, Tripura Power Generation Limited (TPGL) has been constituted and all assets relating to Generation projects owned by TSECL is being transferred to TPGL with effect from 1st April 2016. However, the demerger of TPGL from TSECL as per provisions of Companies Act 2015, is still in progress, post which the independent functioning of TPGL shall commence. As such, a combined petition for generation and distribution is being filed by TSECL till such stage.
3. The Hon'ble Commission in exercise of power conferred under section 181 of The Electricity Act 2003 and all other powers enabling in this behalf issued the
 - TERC Tariff Regulation 2004,
 - TERC Tariff Procedure Regulation 2004.
 - TERC Conduct of Business Regulation 2004.
4. The present tariff petition is being filed in accordance with the relevant provision of the above-mentioned regulations as well as that of Electricity Act 2003 and National Tariff Policy.
5. This petition includes the ARR of FY 2025-26 and MYT projections for FY 2024-25 to FY 2025-26 for generation, transmission and distribution.
6. TSECL along with this petition is submitting the supporting/ supplementary data & information available and shall further make available the same to the extent available with TSECL as may be required by the Hon'ble Commission during its processing.
7. TSECL would like to request the Commission to allow it to submit any missing/ additional information and clarifications on this petition, as required for further proceedings in the matter

Prayer

TSECL respectfully prays that the Hon'ble Commission may:

- a. Admit this Petition;
- b. Examine the proposal submitted by the Petitioner for a favorable dispensation as detailed in the enclosed proposal;
- c. Consider the submissions and allow the proposed MYT for FY 2024-25 to FY 2025-26;
- d. Pass suitable orders for implementation of the tariff proposal;
- e. Approve the terms and conditions of tariff and various other matters as proposed in this petition and the proposed changes therein.
- f. Condone any inadvertent omissions/ errors/ shortcomings and permit TSECL to add/ change/ modify / alter this filing and make further submissions as may be required at a future date.

Pass such orders as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case;



(Smt. Sujata Sarkar)
Deputy General manager
For and on behalf of

Tripura State Electricity Corporation Limited (TSECL)

Dated: 29/11/, 2024



सत्यमेव जयते

INDIA NON JUDICIAL

Government of Tripura

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Certificate No. : IN-TR30855486090449W
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Property Description : NA
Consideration Price (Rs.) : 0
 (Zero)
First Party : TERC
Second Party : TSECL
Stamp Duty Paid By : TERC
Stamp Duty Amount(Rs.) : 50
 (Fifty only)

सत्यमेव जयते

SI.No. 18/NOV/24 Date 29 NOV 2024

BEFORE THE TRIPURA ELECTRICITY REGULATORY COMMISSION, AGARTALA

Please write or type below this line File No.

Case No.

IN THE MATTER OF

Filing of the MYT Tariff Petition for FY 2024-25 to FY 2025-26 by Tripura State Electricity Corporation Limited (TSECL) under TERC MYT Regulations 2015 for generation business, transmission business and under TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 for distribution and retail supply business along with other guidelines and directions issued by the TERC from time to time and under Section 62 of the Electricity Act, 2003 read with the relevant Guidelines.

(SUJATA SARKAR)
 Deputy General Manager,
 Commercial & Tariff,
 TSECL, Agartala.

HIF 0022474333

29-11-24
 SUDIP KUMAR TARAN
 NOTARY, Govt. of Tripura
 Agartala, West Tripura
 Regd. No. 18/2024

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AND

IN THE MATTER OF:

Tripura State Electricity Corporation Limited,

Bidyut Bhawan, Banamalipur, Agartala, Tripura PETITIONER

I, Smt. Sujata Sarkar, daughter of Late Samir Ranjan Sarkar, aged 46 years, residing at Agartala do solemnly affirm and say as follows:

- I. I am Smt. Sujata Sarkar, Deputy General Manager (Commercial & Tariff) of Tripura State Electricity Corporation Limited, the representative of petitioner in the above matter and I am duly authorized by the said petitioner to make this affidavit on its behalf.
- II. The statements made in the petition herein are true to the best of my knowledge, based on information received and true to my belief and nothing material has been concealed from the statements so made or documents or supporting data etc. attached.

Solemnly affirmed at... .. on this day of... .. , 2024 that the contents of this affidavit are true to my knowledge, no part of it is false or nothing material has been concealed there from and misleading material included therein.

Place: Agartala
Date:

Deponent

(SUJATA SARKAR)
Deputy General Manager,
Commercial & Tariff,
TSECL, Agartala.

SUDIP KUMAR TARAN
NOTARY, Govt. of Tripura
Agartala, West Tripura
Regd. No-35 of 2017

29 NOV 2024

BEFORE THE HON'BLE TRIPURA ELECTRICITY REGULATORY COMMISSION

FILE NO.....

CASE NO.....

IN THE MATTER OF

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AND**IN THE MATTER OF**

TRIPURA STATE ELECTRICITY CORPORATION LIMITED
Bidyut Bhavan, North Banamalipur,
Agartala – 700 001, TRIPURA

--- PETITIONER

I, **Smt. Sujata Sarkar**, Deputy General Manager, Commercial & tariff, TSECL to act as its representative in the above matter in the aforesaid case.

Place :

Date:

For and on behalf of TSECL

(SUJATA SARKAR)
Deputy General Manager,
Commercial & Tariff,
TSECL, Agartala

Certified that I have given the above authority and I have powers to give such an authority. Change, if any, will be duly registered with the Commission and I will continue to be bound by the act, action and /or other submissions/undertakings etc. made/given by him/it before registration of such change.

Place :

Date:

For and on behalf of TSECL

(Er. Biswajit Basu)
Managing Director
TSECL, Agartala, Tripura.

3. Summary of Present Tariff Filing for FY 25-26

3.1. Preamble

1. Tripura State Electricity Corporation Limited (TSECL) has been created from the Department of Power, Government of Tripura and started its operation from 1st January 2005. TSECL was the sole electricity utility in Tripura responsible for generation, transmission and distribution of electricity in the State. Now, new company named **Tripura Power Generation Limited (TPGL)** has been formed with all generation assets of TSECL with effect from June 2015. TPGL which is now responsible for the State generation production, have now started functioning as an independent entity from September 2016.
2. As per the Govt. of Tripura notification dated 14.01.2023, the Transmission operations has been segregated from TSECL by the formation of a **separate company named Tripura Power Transmission Limited (TPTL)**. TPTL has been incorporated on 19th January 2023 as per Companies Act 2013, having CIN-U40106TR2023SGC014192. The formation of TPTL is envisaged to form as a wholly owned subsidiary of TSECL, as a State Transmission Utility to take over, acquire and manage the existing intra-state transmission and sub transmission systems upto 33kV level of TSECL as per Tripura State Electricity Reforms Transfer Scheme (Provisional) 2023 as notified by the Tripura State Electricity Corporation Limited (TSECL) under laws, rules and regulations. The notification related to incorporation of TPTL is provided in Annexure.
3. However, the demerger of TPGL and TPTL from TSECL as per provisions of Companies Act, 2015, is still in progress, post which the independent functioning of TPGL and TPTL shall commence. A consultant has been appointed for the financial demerger and separate accounts work for TPGL and TPTL. Accordingly, TSECL has filed a combined Petition.
4. The Government of Tripura (GoT) vide notification dated 24th July 2007, notified the final opening balance of the assets of TSECL with effect from January 1st 2005. As per this notification of Government of Tripura, Rs. 636.35 Crore worth of Fixed Assets and Rs. 18.39 Cr. of worth of current assets (after netting off current liabilities of Rs. 44.17 Crore) transferred to TSECL from the Department of Power, GoT. The authorized capital of TSECL increased from Rs. 10.00 Crore to Rs. 120.00 Crore. TSECL increased its issued, subscribed and paid-up share capital from Rs. 9.55 Crore to Rs. 109.29 Crore for consideration of other than cash by way of conversion of capital reserve amounting to Rs. 9.50 Crore and conversion of Department of Power loan amounting to Rs. 90.24 Crore.
5. However, the opening balance sheet of TPGL and TPTL and segregation of generation assets of TPGL/TPTL has not been finalized. The financial segregation of TPGL and TPTL is yet to be implemented. However, as per TERC MYT Regulations 2015 and TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023, segregated ARR has been filed for generation, transmission and distribution functions based on the division wise account statements prepared by TSECL and the calculations regarding the division wise accounts are available in the truing up excel files shared as per above.

3.2. Procedural History

Table 1. Details of past Tariff petitions filed by TSECL and Tariff Orders notified by the Commission

Sr. No.	Petition Filed	Date of filing	Order issue date	Remarks
1	First Tariff Petition was filed for the FY 2005-06 in accordance with the Tripura Electricity Regulatory Commission (Tariff Procedure) Regulation 2004, and Tripura Electricity Regulatory Commission (Tariff) Regulation 2004	-	24th June 2005	-
2	Submitted second ARR and Tariff Petition for FY 2006-07	4th August, 2006	14th September, 2006	-
3	In FY 2010-11, TSECL submitted a Petition for Fuel & Power Purchase Cost Adjustment (FPPCA)	FY 2010-11	13th September, 2010	-
4	Petition for Truing-Up for the period FY 2007-08 to FY 2010-11 and determination of ARR for FY 2012-13	20th January, 2012	28th March, 2012	The Order also included review of ARR for FY 2011-12 and determination of ARR and tariff for FY 2012-13.
5	Commission approved the provisional True-Up for FY 2011-12, Review for FY 2012-13 and ARR and Tariff Order for FY 2013-14	-	15th March, 2013	-
6	Commission issued an Order with regard to True-Up for FY 2012-13, Review of FY 2013-14 and determination of Tariff for FY 2014-15	-	22nd November, 2014	-
7	First MYT petition for the control period of FY 2016-17 to FY 2020-21 including truing up of FY 2013-14, FY 2014-15 and FY 2015-16	February 2020	1st September 2020	Commission notified the new MYT regulations in 2015
8	MYT petition for the control period from FY 2020-21 to 2023-24 along with the true-up for the period from FY 2017-18, 2018-19 and 2019-20	April 2022	2nd September 2022	Commission issued the tariff order for the period FY 2020-21 to 2023-24
9	MYT petition for True-up petition of FY 20-21 and FY 21-22 and for the APR of the period FY 22-23 and ARR of the period FY 23-24	-	22nd September 2023	-
10	MYT petition for True-up petition of FY 22-23 and for the APR of the period FY 23-24 and ARR of the period FY 24-25	-	14th August 2024	-

3.3. Current Petition

6. Section 62 of the Electricity Act, 2003 mandates the utility to furnish details as may be specified by the State Electricity Regulatory Commission for determination of tariff. In addition, as per the TERC MYT Regulations 2015, issued by the Hon'ble Commission, TSECL is required to MYT Tariff Petition based on actual data of past years and future plans to calculate the ARR and seek the approval of the Hon'ble Commission for the same. TSECL has already filed the true up tariff petition of FY 2023-24 based on the audited statement of accounts. In addition to this, the provisional statements of first and second quarterly account statements of FY 24-25 upto

Sep'24 is also ready. The present filing has been made as per the actual audited data of FY 23-24 and quarterly provisional data upto Sep'24.

7. The projections for MYT (APR of FY 2024-25 and ARR of FY 2025-26) have been made based on the actual data and account statements available till Sep'24.

8. The current petition has been prepared in accordance with the provisions of the following Acts/Policies/Regulations:

- Electricity Act 2003;
- National Electricity Policy;
- National Tariff Policy issued from time to time;
- Tripura Electricity Regulatory Commission Tariff Regulations (Multi Year Tariff), 2015

9. TSECL has made genuine efforts for compiling all relevant information relating to the MYT Petition as required under the Regulations issued by the Hon'ble Commission and has also made every effort to ensure that information provided to the Hon'ble Commission is accurate and free from material errors. However, there may be certain deficiencies owing to the limitations of the management information systems of the TSECL. Hence, TSECL prays before the Hon'ble Commission that the information provided be accepted for the current filing and at the same time TSECL assures that it is taking appropriate measures to improve its management information system for improved data collection case any additional information or clarification is required, TSECL commits to provide the same as required, during the process of approval of the filed true up petition.

10. Accordingly, TSECL prays before the Hon'ble Commission to admit & process this MYT Petition for FY 24-25 to FY 25-26.

3.4. Contents of the Petition

11. This petition comprises of following main sections namely:

- MYT Tariff petition for FY 24-25 to FY 25-26 for Generation;
- MYT Tariff petition for FY 24-25 to FY 25-26 for Transmission;
- MYT Tariff petition for FY 24-25 to FY 25-26 for Distribution;

4. Generation MYT for the APR of FY 2024-25 and ARR of FY 2025-26

4.1. Introduction

12. This section deals with the revenue requirement of generation business of TSECL for the years FY 2024-25 to FY 2025-26, consisting of APR of FY 2024-25 and ARR of FY 2025-26. TSECL has calculated the ARR and tariff requirements of generation as per the **TERC Tariff Regulation (Multi Year Tariff), 2015**.

13. TSECL is filing its Annual Revenue Requirement for generation business separately under the same petition as per the past precedents and in accordance with the relevant regulations and directives of the Commission. It is submitted that TSECL has not segregated the account statements for generation, transmission and distribution business completely and the work is under progress. The break-up of costs in generation, transmission and distribution business, wherever necessary for ARR and tariff calculation, have been done based on the division wise break-up of account statements and making suitable assumptions, as necessary, for the common functions like accounts and finance, HR, projects etc. at corporate level. As such, TSECL is submitting a combined petition for generation, transmission and distribution business with segregated ARR calculations as provided below.

14. As on date, the statutory audit of the account statements till FY 2023-24 has been completed. The present petition has been filed based on the audited accounts data till FY 2023-24 and the provisional 1st and 2nd quarterly account statements of FY 24-25. The ARR and tariff for FY 2024-25 to FY 2025-26 has been projected based on the actual data of past years and norms of Tariff Regulation (Multi Year Tariff) 2015, as applicable.

15. The detailed schedules and formats of the Revenue Requirement Form and MYT for the period FY 24-25 to FY 25-26 are given in the subsequent sections.

4.2. Own Generation Parameters

4.2.1. Plant Load Factor (PLF) and Auxiliary Consumption

16. TSECL's generation is comprised of gas based RGTPP and BGTPP and hydro based GHPP. The PLFs and auxiliary consumption for the three generation units for the period FY 2020-21 to FY 2024-25 is tabulated below:

Table 2: Actual Plant Wise PLF from FY 20-21 to FY 25-26

PLF calculation	Units	FY 20-21	FY 21-22	FY 22-23	FY 23-24	FY 24-25 (Sep'24)	FY 24-25 (Estimated)	FY 25-26 (Projected)
		Actual				Projected		
Rokhia gas based thermal power plant (RGTPP)								
Gross Generation	MU	347.11	334.09	248.83	324.27	108.17	182.12	364.24
Installed Capacity	MW	63	63	63	63	63	63	63
PLF	%	62.90%	60.54%	43.08%	58.76	39.20	33%	66%

Auxiliary Consumption	%	1.00%	1%	1%	1.00%	1.00%	1.00%	1.00%
Baramura gas based thermal power plant(BGTPP)								
Gross Generation	MU	192.495	235.25	301.24	157.24	3.45	3.45	165.56
Installed Capacity	MW	42	42	42	42	42	42	42
PLF	%	52%	63.94%	81.88%	42.74	1.88	0.94	45%
Auxiliary Consumption	%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%
Gumti Hydro Electric Plant (GHEP)								
Gross Generation	MU	7.972	9.39	13.76	16.86	5.10	5.10	0.00
Installed Capacity	MW	10	10	10	10	10	10	10
PLF	%	9.1%	10.72%	13.00%	19.25	11.64%	5.82%	0.00%
Auxiliary Consumption	%	0.70%	0.70%	0.70%	0.70%	0.70%	0.70%	0.00%
Total Gross Generation for all the three generating plants (MU)	MU	547.58	578.73	563.83	498.37	116.72	190.67	529.80
Total Net Generation for all the three Generating Plant (MU)	MU	542.13	572.97	558.24	493.44	115.57	188.78	524.51

17. The installed capacity for the years has been provided based on the maximum capacity available for the year. It may be noted that PLF of RGTPP dropped from FY 2020-21 to FY 2022-23 but increased in FY 2023-24. This is because one unit was not operational as per the directive of Ministry of Environment and Forest (MoEF), due to the pending issue of Environmental Clearance of the existing units. However, recently, TPGL has obtained the clearance from the Ministry after submitting a complete EIA study (Environmental Impact Assessment) Study which has resulted in getting approval to run the third unit by the end of December '23 onwards. All the three units started working together in operation from December 2023 onwards. However, for Rokhia in FY 23-24, the overall Gas supply was very less from the APM supply (from GAIL) which was one of the primary reasons and there was no supply from MDP (from ONGC) which has contributed to low overall Gas supply. The Rokhia Unit-8 was shut down for more than 70 days in FY 23-24 owing to unavailability of gas and Unit-9 of the plant was also unavailable for around 55 days due to maintenance and outage issues. A total of 3278 hours (almost 37.5% of run-time) was lost due to outage issues and insufficient gas supply to the Rokhia plant. The shutdown details for Rokhia and Baramura power plants have been provided in the Truing up petition and also as Annexure to the present petition.

18. Based on the expected performance, the performance of RGTPP for FY 24-25 to FY 25-26 is as provided in the table above. The PLF of Rokhia is anticipated to be ~66% based on availability of gas and considering that two out of three units would be in operation for most of the year in FY 25-26. The PLF in FY 24-25 (till Sep'24) was 39.20% and is expected to remain close to it throughout the year as due to limited gas availability only one unit is expected to run through the whole year, that is, ~33% PLF in FY 24-25 with continuous operation of one unit only.

19. In FY 23-24, the Unit #5 of Baramura plant went considerable shutdown due to outage issues and over 362 hours (around 4.41% of runtime) were lost due to outages and maintenance throughout the year. This resulted in the pipeline of the gas supply being changed and with only APM supply being carried only for throughout the

year. The PLF of BGTPP for FY 24-25 to FY 25-26 has been projected as shown in the table above based on the current Gas supply scenario till Sep'24 and has been considered that both the units would be out of operation owing to unavailability of gas in FY 2024-25. However, it is expected that one unit would be operational in FY 2025-26. Hence, PLF is anticipated to be ~ 0.94% in FY 24-25 and ~45% in FY 25-26.

20. Compared to the PLF, the availability factor of RGTPP and BGTPP (excluding the non-availability due to fuel constraints) are at around 87% and 95% respectively for the period FY 2023-24 which is better than the normative value of 85%. The availability factors for FY 24-25 & FY 25-26 have been projected based on the current availability data and based on last year's performance for both the plants. The availability factors for the last few years and for FY 24-25 and FY 25-26 is tabulated below:

Table 3: Plant wise Availability % for FY 20-21 to 25-26

Plant wise availability	Units	FY 20-21 (Actual)	FY 21-22 (Actual)	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
RGTPP	%	79	95.8	46.3	87.52	87.52	87.52
BGTPP	%	54.12	63.94%	82.98	95.86	95.86	95.86

21. In the case of GHEP, out of the three units, only two units run continuously based on the annual average generation figures obtained at the time of triuing-up of FY 2023-24. At present, the Gumti plant has been running with only two units with the third unit still under repair and maintenance. The Gumti plant generated 16.86 MU in FY 23-24 (actual) annually. However, for the projection of FY 24-25 and FY 25-26, we considered the actual scenario of the Gumti plant where it has been noted that the Gumti plant from October '24 has witnessed strong floods and natural calamity which has damaged the turbines and other machinery and electrical equipment's hence it needs a strong revamping and renovation of the entire plant. Hence, TPGL had decided to stop the running of the Gumti plant at present and undertake revamping of the plant starting from late December'24 and to be continued till March'26 (i.e for the balance period of FY 24-25 and FY 25-26).

22. It may be noted that the auxiliary consumption of the generating plants has been considered as per actual which is well within the norms of the Commission.

23. As mentioned in the previous tariff petition of the Commission, TPGL is implementing a generation improvement project under ADB funding which covers the upgradation of Rokhia plant through conversion from open cycle to combined cycle and increase in capacity from 63 MW to 120 MW using the existing quantity of gas. The contract has been finalized and work is expected to start soon. This will result in improvement of further efficiency and reduce the tariff of own generation of Rokhia. The project is expected to be completed by FY 2027-28.

4.2.2. Heat Rate and Gross Calorific Value

24. Heat rate of a thermal power plant is a measure of the power plant's energy efficiency and the heat rates calculated for RGTPP and BGTPP for FY 23-24 has been based on the net calorific values (kcal/Standard Cubic Meter) of the gas being supplied to power plants and consumption of gas (Standard Cubic Meter or SCM) is

shown below. The heat rate for FY 25& FY 26 has been kept same based on the latest performance of FY23-24 and FY 24-25 (upto Sep'24), which is expected to continue.

Table 4: Plant wise Heat Rate of period from FY 20-21 to 25-26

Year	Heat Rate (Kcal/kWh)		
	BGTPP	RGTPP	Average
FY 20-21	3460	3702	3581.04
FY 21-22	3550.40	3696.51	3623.46
FY 22-23	3456.76	3456.76	3456.76
FY 23-24	3574.46	3531.31	3552.89
FY 24-25 (Estimated)	3574.46	3531.31	3552.89
FY 25-26 (Projected)	3574.46	3531.31	3552.89

25. For Gross Calorific Value, we have kept the same value for both Rokhia and Baramura Thermal power plant based on latest actual FY 24 value (as of Mar' 24 as on the latest performance, which is expected to continue) for the projections of FY 24-25 and FY 25-26. The Gross Calorific Value of the plants are given for respective years in the table below.

Table 5: Plant wise Gross Calorific Value in Kcal/SCM of FY 20-21 to 25-26

Year	Gross Calorific Value (Kcal/SCM)		
	BGTPP	RGTPP	Average
FY 20-21	8261.86	8339.2	8300.53
FY 21-22	8289.63	8301.41	8295.52
FY 22-23	8284.21	8284.23	8284.22
FY 23-24	8293.07	8308.59	8300.83
FY 24-25 (Estimated)	8293.07	8308.59	8300.83
FY 25-26 (Projected)	8293.07	8308.59	8300.83

26. It may be observed that actual Gross Station Heat Rate (SHR) of BGTPP has improved in FY 23-24 compared to the previous year, but still much lower than the normative value of 3700 kCal/kWh. For Rokhia too, the average heat rate has dipped to 3531.31 kcal/kWh, which is much lower than the normative value of 3700 kCal/kWh, due to lower availability of Gas. As such, there is improvement in actual performance on this parameter as compared to the normative FY 23-24 values. It is requested to approve the actual heat rates of the plant as provided above. The Gross Calorific Value (GCV) of BGTPP and RGTPP are found to be almost nearer to the approved average value.

4.3. Interest on Working Capital

27. The working capital is estimated for calculating the normative interest charges to be allowed for financing the working capital requirements. As per TERC Tariff Regulation (Multi Year Tariff), 2015, the working capital norms have been defined separately for thermal generation station and Hydro generating stations, as given below:

For Open-cycle Gas Turbine/Combined Cycle thermal generating stations (for RGTPP and BGTPP):

- One month Fuel cost
- Maintenance spares @ 30% of operation and maintenance expenses
- Receivables equivalent to two months of capacity charge and energy charge
- One Month O&M Expenses

For Hydro generating station (for GHEP):

- Receivables equivalent to two months of fixed cost
- Maintenance spares @ 15% of operation and maintenance expenses
- One Month O&M Expenses

28. The historical SBI base rate is tabulated below which has been used to calculate the normative interest rate.

Table 6. Historical SBI base rate and interest rate

Effective Date for SBI Base Rate	Interest Rate (%)
15.06.2024	10.40%
15.03.2024	10.25 %
15.12.2023	10.25 %
15.09.2023	10.10 %
15.06.2023	10.10 %
15.03.2023	10.10 %
15.12.2022	9.40%
15.09.2022	8.70%
15.06.2022	8.00%
15.03.2022	7.55%

29. Based on the historical rate of interest data, we have considered the normative rate of interest for calculating the working capital to be as 13.10% (10.10%+ 3%) for FY 23-24 true-up calculation and 13.25% (10.25%+ 3%), as of 1st April 2024 SBI Base rate for FY 24-25 and FY 25-26 (projections).

30. Based on the above, the normative working capital requirements as per TERC regulations, the normative interest component on same and actual interest to be incurred for working capital is tabulated below:

Table 7: Interest on Working Capital in Rs. Crores for FY 22-23 to 25-26

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
Rokhia thermal generation power plant (RGTPP)				
Fuel stock	15.74	17.85	10.95	22.16
Maintenance Spares stock	1.71	4.07	4.24	4.50
Receivables	36.10	41.84	27.69	51.03
O&M expenses	0.48	1.13	1.18	1.25
TOTAL	54.03	64.89	44.06	78.94
Normative Interest on Working Capital @ SBI Base Rate + 3%	10.55%	13.10%	13.25%	13.25%

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
Interest on Working Capital	5.70	8.50	5.84	10.46
Baramura thermal generation power plant (BGTPP)				
Fuel stock	14.32	8.77	0.20	9.83
Maintenance Spares stock	1.53	1.87	2.25	2.79
Receivables	32.61	21.33	3.87	1.77
O&M expenses	0.43	0.52	0.62	0.78
TOTAL	48.89	32.49	6.94	15.17
Normative Interest on Working Capital @ SBI Base Rate + 3%	10.55%	13.10%	13.25%	13.25%
Interest on Working Capital	5.16	4.26	0.92	2.01
Gumti Hydro Electric Power Plant (GHEP)				
Fuel stock				
Maintenance Spares stock	1.31	0.70	0.82	0.91
Receivables	1.02	1.04	1.17	23.61
O&M expenses	0.36	0.39	0.45	0.51
TOTAL	2.69	2.13	2.45	25.03
Normative Interest on Working Capital @ SBI Base Rate + 3%	10.55%	13.10%	13.25%	13.25%
Interest on Working Capital	0.28	0.28	0.32	3.32
Total Interest on Working Capital of TSECL (Generation)	11.14	13.04	7.08	15.79

4.4. Return on Equity and Tax on Income

31. As per Clause 26 of Tariff Regulation (Multi Year Tariff) 2015, Return on Equity shall be computed at a base rate of 15.50% for thermal stations and 16.50% storage type hydro stations on equity base. So, the Base rate for calculation of RoE of two gas plants (RGTPP & BGTPP) and GHEP would be 15.50% and 16.50% respectively.

32. The amount of equity base to be considered for calculation of return has been considered based on the relevant clause (clause 21) of Tariff Regulation (Multi Year Tariff) 2015, which states

“For a project declared under commercial operation on or after 16th Oct 2015, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan. In case of the generating station declared under commercial operation prior to 16th Oct 2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending the year before the date of publication of above regulation on the Official Gazette shall be considered”.

33. It may be noted that the Commission in its past orders had considered equity base for the generation projects as 30% of the Gross Fixed Asset Value and as such the same is considered here for the purpose of calculation of RoE based on legal precedent as per past orders. Equity fund of TSECL is calculated after allocating equity fund of TSECL in the Gross fixed assets ratio among generation, transmission and distribution business. After that equity fund of generation business allocated among three plants based on gross fixed assets ratio for each of the plants.

34. As per Clause 27 of Tariff Regulation (Multi Year Tariff) 2015,

The base rate of return on equity as allowed by the Commission under Clause 26 (mentioned above) shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts.

35. Since TSECL has accumulated financial losses and does not have to pay tax as of now, the RoE has not been grossed with tax rate. But in future, if TSECL has to pay tax due to change in tax provisions or recovery of accumulated losses, then the Commission is requested to consider the same as per TERC MYT Regulations 2015.

Table 8: Calculation of Pre-Tax Return on Equity

Sr. No.	Particulars	RGTPP	BGTPP	GHEP
A.	Return on Equity as per norms	15.50%	15.50%	16.50%
B	Effective Tax Rate	0%	0%	0%

36. The return on equity computed on paid up capital is summarized in the table given below:

Table 9: Calculation of Equity Fund and Return on Equity in Rs. Crores for FY 22-23 to 25-26

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24- 25(Sep'2 4)	FY 24- 25(Estimate d)	FY 25- 26(Projecte d)
Rokhia GTPP					
Total GFA	241.03	209.80	211.90	211.90	211.90
Normative Equity fund (30% of GFA)	72.31	62.94	63.57	63.57	63.57
Return on Equity	11.21	9.76	9.85	9.85	9.85
Tax on RoE	0.00	0.00	0.00	0.00	0.00
Baramura GTPP					
Total GFA	163.58	141.61	144.66	144.66	144.66
Normative Equity fund (30% of GFA)	49.07	42.48	43.40	43.40	43.40
Return on Equity	7.61	6.58	6.73	6.73	6.73
Tax on RoE	0.00	0.00	0	0	0
Gumti HEP					
Total GFA	14.30	13.42	13.59	13.59	13.59
Normative Equity fund (30% of GFA)	4.29	4.03	4.08	4.08	4.08
Return on Equity	0.71	0.66	0.67	0.67	0.67
Tax on RoE	0.00	0.00	0	0	0
Total RoE Claimed	19.53	17.00	17.25	17.25	17.25

4.5. Expenditure

4.5.1. Fuel Cost

37. The only fuel used by TSECL for self-generation of energy is natural gas. The natural gas is being sourced from the reserves at Rokhia, Baramura and Konaban partly under the Average Price Mechanism (APM) at the

rates notified by the Ministry of Petroleum and Natural Gas (MoP&NG), Government of India and partly at the Market Determined Price (MDP). TPGL has allocations of 0.58 MMSCMD and 0.40 MMSCMD under the APM gas mechanism for its generation plants at RGTPP and BGTPP respectively.

38. Currently, GAIL is able to supply only 0.38 MMSCMD (65% of allocation) and 0.19 MMSCMD under APM gas mechanism to RGTPP and BGTPP respectively. The balance requirement is typically sourced under MDP (Market Determined Price) but in current year and next year, TSECL is not sourcing power under MDP due to the power availability and demand scenario as well as the current fuel supply situation. Based on above, source wise (APM and MDP) supply of gas of FY 2024-25 to FY 2025-26 are provided in Table below.

Fuel Consumption Data

Fuel Consumption (in MMSCM)	RGTPP	BGTPP
FY 23-24	137.82	67.77
FY 24-25 (Sep'24)	45.97	1.49
FY 24-25 (Estimated)	77.40	1.49
FY 25-26 (Projected)	154.81	71.36

39. As per Clause 25 of Tariff Regulation (Multi Year Tariff) 2015, the landed fuel cost of primary fuel and secondary fuel for tariff determination shall be projected based on actual weighted average cost of primary fuel of last three months. This fuel cost includes other costs like metering charges, Vat payable, etc. The projected fuel cost for FY 2024-25 and FY 2025-26 is shown in the table given below based on the latest applicable rates of fuel for September 2024.

Table 10: Source wise Supply of Fuel and fuel cost (per SCM) in FY 22-23 to 25-26 (Projected)

Particulars	RGTPP	BGTPP	RGTPP	BGTPP	RGTPP	BGTPP	RGTPP	BGTPP	RGTPP	BGTPP
	2022-23 (Actual)		2023-24 (Actual)		2024-25 (Sep'24)		2024-25 (Estimated)		2025-26 (Projected)	
Source wise supply of Natural Gas (In %)										
APM supply from GAIL	100%	57.34%	100%	99.76%	100%	100%	100%	100%	100%	100%
MDP Supply from ONGC	0.00%	42.65%	0.00%	0.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fuel Cost (Rs./SCM)										
Cost of APM Supply	17.02	16.28	15.30	15.04	16.97	16.34	16.97	16.34	17.18	16.53
Cost of MDP Supply	0.00	10.05	0.00	10.52	0.00	0.00	0.00	0.00	0.00	0.00

40. The APM prices notified by MoPNG, GoI during the control period is tabulated below. From April'22 there has been a sudden increase in the price of raw APM gas prices as notified by MoPNG, GoI, where it has increased drastically by around 110% to USD 6.1/MMBtu from its previous value of USD 2.9/MMBtu in Oct'21-Mar'22. The prices soared to 8.17 US\$/MMBtu in March 2024 and ranged from 7.48 to 9.20 US\$/MMBtu in FY 2023-2024.

41. It may be noted that TPGL had submitted the actual fuel cost bills to the Commission and the Commission in its last tariff order had approved the actual fuel cost undertaken by TPGL. However, in FY 23-24, the gas price applicable for Tripura has been capped at USD 6.5 /MMBtu although the exchange rate has slightly negated the impact of capping of gas price.

42. TPGL has been purchasing gas at a rate of USD 6.5/MMBtu which is the upper Gas price ceiling as per MoPNG notification for states which has a dedicated Oil/Gas field present within the state. The latest gas price has been mentioned in the table below. For projecting the Gas prices, we have considered the actual price till September 2024 as the price for remaining of the year (FY 24-25) and as well as for the next year (FY 25-26).

Table 11: Gas price data from FY 2022-23 to FY 2024-25 (Sep'24)

Period	Gas Price (US\$/MMBtu)	Gas Price ceiling (US\$/MMBtu)
April 2021 – Sept 2021	1.79	3.62
Oct 2021- Mar 2022	2.90	6.13
April 2022 – Sept 2022	6.10	9.92
Oct 2022- Mar 2023	8.57	12.46
April 2023 (1 st to 7 th)	9.16 & 7.92	6.50
April 2023 (8 th to 30 th)	7.92	6.50
May 2023	8.27	6.50
June 2023- Sept'2024	7.58-9.20	6.50

43. While the monthly Gas prices have varied throughout from 2023 to 2024(till Sept'24), the Gas price ceiling have kept constant at USD 6.50/MMBtu. Hence, the Gas prices have been at USD\$ 6.50/MMBtu throughout the year in FY 2023-24.

44. In addition to the increase in raw APM gas price as per Govt. notification, there is an **additional impact of change in USD to INR exchange rate and increase in other charges like transportation, VAT etc.** The latest foreign currency depreciation of Indian rupees in foreign exchanges has taken a major impact in the gas purchases in Indian currency. The USD rate in Indian currency has fluctuated from 78 INR in June'22 to 82 INR at end of 2022 and at present **84 INR** (as of Nov '24). Such volatility in Indian rupee has taken a big impact in the Gas prices and is expected to be volatile in the remaining FY 24-25 and next FY 25-26. We have taken USD to be 84 INR for FY 24-25 and 85 INR for FY 25-26 for the projections of fuel costs in FY 25-26. Thus, TSECL prays before the commission to consider the tariff revision in this petition caused by the above factors which have hampered substantially the generation cost of TSECL/TPGL and would further impact their operations. Even though the Gas prices have fluctuated as mentioned above, it still remains higher than the

actual price of FY 22-23. Hence, this has affected the Gas price purchase and it has remained on the higher side which has impacted on the financials of TPGL.

45. The Plant wise fuel consumption and fuel cost are tabled below:

Table 12: Fuel consumption and Fuel Cost in Rs. Crores

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Sep'24)	FY 24-25 (Estimated)	FY 25-26 (Projected)
Rokhia gas based thermal power plant (RGTPP)					
Fuel Consumption (In MMSCM)	103.83	137.84	47.46	77.40	154.81
Fuel Cost	188.85	214.22	80.55	131.39	265.90
Baramura gas based thermal power plant (BGTPP)					
Fuel Consumption (In MMSCM)	125.70	67.77	1.49	1.49	71.36
Fuel Cost	171.90	105.23	2.71	2.71	117.96

4.5.2. Operation and Maintenance Cost

46. As per Clause 31 (1) (b) of Tariff Regulation (Multi Year Tariff) 2015, Operation and Maintenance expenses of RGTPP and BGTPP should be calculated based on the normative cost per MW of capacity. The total O&M cost for the generation is shown below:

Table 13: O&M Expenses as per Norms

Particulars	Amount (Rs. Lakh per MW)
FY 2022-23	69.98
FY 2023-24	74.73
FY 2024-25	79.82

47. For hydro generating stations, O&M cost was calculated by escalating last year O&M cost by 6.64%.

48. However, in this multi-year tariff petition for FY 2024-25 and FY 2025-26, the actual Operation & Maintenance Costs (O&M) have been taken based on the actual audited accounts statements received of TSECL based on the precedent set by the Commission in their previous tariff order dated 14th August 2024. As such, we have segregated the costs based on the actual costs incurred towards Employee Costs, Repair & Maintenance Expenses (R&M) and Administrative & General Expenses (AG) from the three generating stations of Rokhia, Baramura and Gumti. The Commission in its last tariff order issued in August 2024 had verified this and has allowed the O&M expenses to be taken as per the actual expenses recorded in the audited accounts statements. The same has been followed in the True-up petition as well for FY 23-24.

49. It maybe noted that the actual Operation & Maintenance (O&M) expenses are coming out to be very less than the approved O&M expenses considered in the Tariff order as per the normative cost principle taken previously in our tariff petitions. This is because of reduced manpower at present in TPGL and limited maintenance being carried out at present due to the limitations in the funds. In future, TPGL intends to increase the manpower and also adopt best practices for maintenance required for improving efficiency and age

of the plant. As such, TPGL request the Commission to allow higher O&M costs in future and not take the present actual cost as a base cost for future projections, to maintain the desired efficiency.

50. It is noted that actual O&M cost of each plant of TSECL booked in account statements of previous years are currently much less as compared to normative O&M cost. It may be noted that the cost of periodic planned maintenance like CIBI, Major Inspection etc. is not being booked under R&M works but are booked as Capex. Also, the R&M activities undertaken under disaster management is also not booked under R&M expenses resulting in understatement of R&M expenses in accounts. As such, the normative expenses have been claimed in this petition.

51. The plant wise actual O&M Cost incurred from FY 2022-23 to FY 2025-26 (projected) are detailed below:

Table 14: O&M Cost in Rs. Crores for period FY 22-23 to 25-26

Particulars	FY 2022-23 (Approved)	FY 2023-24 (Approved)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Rokhia gas based thermal power plant (RGTPP)				
Employee Cost	4.39	4.76	5.15	5.68
Repair & Maintenance	0.23	0.93	1.09	1.30
A&G Cost	1.09	7.88	7.88	8.01
Total O&M Cost claimed	5.70	13.57	14.12	14.99
Baramura gas based thermal power plant (BGTPP)				
Employee Cost	3.24	3.57	4.17	4.81
Repair & Maintenance	0.85	0.97	1.48	2.00
A&G Cost	1.03	1.72	1.84	2.49
Total O&M Cost claimed	5.11	6.25	7.49	9.31
Gumti Hydro Electric Plant (GHEP)				
Employee Cost	3.56	3.77	4.31	4.83
Repair & Maintenance	0.40	0.31	0.50	0.41
A&G Cost	0.41	0.61	0.65	0.83
Total O&M cost claimed	4.37	4.69	5.46	6.07
Total O&M cost claimed for all 3 Generating Stations	15.18	24.51	27.06	30.37

52. The total employee cost has been projected based on the increase in trend from the past three to four years in employee wages incurred at actual. The total number of employees of TSECL by the end of FY 2023-24 was 2,798 and was 2,712 as of October 2024. **The number of employees to be recruited in FY 25-26 is 47, taking the total strength to 2,759.**

53. The detail number of employees expected to be changed from FY 23-24 and FY 24-25 is summarized as below:

Table 15: Actual number of employees by the end of FY 23-24 and Oct'24

No. of Employees by FY 23-24 end	No. of Employees by October 2024 end	No. of Employees expected to be recruited in 25-26	No. of employees expected in 2025- 26 end
2,798	2,712	47	2,759

4.5.3. Depreciation

54. For the calculation of depreciation, the depreciation rates have been taken from Tariff Regulation (Multi Year Tariff) 2015 on the gross asset value. However, in account statement depreciation have been calculated as per depreciation rate provided in Companies Act 2013 i.e. based on the useful life.

Table 16: Rate of Depreciation as per Tariff Regulation

Particulars	Depreciation Rate as per Tariff Regulation
Land	0.00%
Building	3.34%
Plant & Machinery	5.28%
Computer	15.00%
Computer and Office Equipment	15.00%
Office Equipment	6.33%
Furniture	6.33%
Vehicles	9.50%

55. The depreciation asset value has been projected for current and next year as the same as found in FY 23-24. The depreciation has been calculated based on the average net rate as per past years booking as given below:

Table 17: Total Depreciation for Generating Assets from FY 22-23 to FY 25-26

Particulars	FY 2022-23 (Approved)	FY 2023-24 (Approved)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Rokhia Gas based thermal power plant (RGTPP)				
Total Depreciation	5.15	5.18	5.18	5.18
Baramura gas based thermal power plant (BGTPP)				
Total Depreciation	5.88	5.84	5.84	5.84
Gumti Hydro Electric Plant (GHEP)				
Total Depreciation	0.67	0.80	0.80	0.80
Total Depreciation for all 3 Generating Stations	11.70	11.83	11.83	11.83

4.5.4. Non-tariff Income

56. The other income of TSECL covers mainly interest earned on fixed deposits made in various banks, sale of tender forms and other miscellaneous income like sale of scrap, sale of tender, meter rent etc. These incomes are being separately booked under other income category. Earning from investment and other miscellaneous incomes are detailed in the table below from FY 22-23 to FY 25-26. The actual data based on audited accounts has been tabulated for FY 22-23 to FY 24-25 (Sep'24). The figures for FY 24-25 to FY 25-26 has been derived based on the current and previous years' trends.

Table 18: Non-Tariff Income (In Crores) for FY 22-23 to 25-26

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
Rokhia Gas Thermal Power Plant (RGTPP)				
Non-Tariff Income	0.02	0.21	0.21	0.21
Baramura Gas Thermal Power Plant (BGTPP)				
Non-Tariff Income	0.01	0.19	0.19	0.19
Gumti Hydro Electric Plant (GHEP)				
Non-Tariff Income	0.04	0.22	0.22	0.22
Total	0.07	0.62	0.62	0.62

4.5.5. Summary of ARR and MYT for the FY 23-24 to FY 25-26 including ARR of FY 25-26

57. Based on the details of expenditure and non-tariff income given above and determined in accordance with TERC tariff regulations, the total annual revenue requirement of FY 22-23 to FY 24-25 is calculated and provided below:

4.5.6. ARR for the year FY 2023-24 (Actual) as given below

Table 19: Summary of Provisional ARR of FY 23-24 in Rs. Crores

Particulars	RGTPP	BGTPP	GHEP	Total
Expenditure				
1. Fuel Cost	214.22	105.23	0.00	319.47
2. Operation & Maintenance Cost	13.57	6.25	4.69	24.51
3. Finance Cost				
4. Depreciation	5.18	5.84	0.80	11.83
5. Interest on Working Capital	8.50	4.26	0.28	13.04
Total Expenditure (1+2+3+4+5)	241.47	121.58	5.77	368.83
Add: Return on Equity	9.76	6.58	0.66	17.00
ARR	251.23	128.17	6.44	385.83
Less: Non-Tariff Income	0.21	0.19	0.22	0.62
Net ARR	251.02	127.98	6.22	385.22

4.5.7. Annual Projected Revenue (APR) Requirement for the FY 2024-25 (Estimated)

Table 20: Summary of ARR of FY 24-25 in Rs. Crores

Particulars	RGTPP	BGTPP	GHEP	Total
Expenditure				
1. Fuel Cost	131.39	2.71	0.00	134.10
2. Operation & Maintenance Cost	14.12	7.49	5.46	27.06
3. Finance Cost				
4. Depreciation	5.18	5.84	0.80	11.83
5. Interest on Working Capital	5.84	0.93	0.32	7.09
Total Expenditure (1+2+3+4+5)	156.53	16.97	6.59	180.09
Add: Return on Equity	9.85	6.73	0.67	17.25
ARR	166.38	23.70	7.26	197.34
Less: Non-Tariff Income	0.21	0.19	0.22	0.62
Net ARR	166.17	23.51	7.04	196.72

4.5.8. Annual Revenue Requirement for the FY 2025-26 (Projected)

Table 21: ARR of FY 2025-26 in Generation business (Projected)

Particulars	RGTPP	BGTPP	GHEP	Total
Expenditure				
1. Fuel Cost	265.90	117.96	0.00	383.86
2. Operation & Maintenance Cost	14.99	9.31	6.07	30.37
3. Finance Cost				
4. Depreciation	5.18	5.84	0.80	11.83
5. Interest on Working Capital	10.46	2.01	3.32	15.79
Total Expenditure (1+2+3+4+5)	296.54	135.12	10.19	441.85
Add: Return on Equity	9.85	6.73	0.67	17.25
ARR	306.39	141.85	10.86	459.10
Less: Non-Tariff Income	0.21	0.19	0.22	0.62
Net ARR	306.18	141.66	10.64	458.49

58. The **Generation tariff** and **Annual Fixed Cost (AFC)** of each plant in the Generation business for actual in FY 2023-24 found at truing-up is given below along with the Generation tariff and AFC of Generating plants considered for APR of FY 24-25 (Estimated) and for ARR of FY 25-26 (Projected) is detailed in the table below for reference:

Table 22: ARR and Generation tariff determination for FY 23-24 (Actual) at truing-up in the Generation business (Rs. Crore)

Parameters	RGTPP	BGTPP	GHEP	Total
Annual Fixed Charges				
O&M Expenses	13.57	6.25	4.69	24.51
Depreciation	5.18	5.84	0.80	11.83
Interest and Finance Charges	-			
Return on Equity	9.76	6.58	0.66	17.00
Interest on Working Capital	8.50	4.26	0.28	13.04
Less: Non-Tariff Income	0.21	0.19	0.22	0.62
Total	36.80	22.75	6.22	65.76
Energy Charges				
Fuel Cost	214.22	105.23		319.45
HSD Cost				
Total	251.02	127.98	6.22	385.22
Net ARR	251.02	127.98	6.22	385.22
Gross Generation (MU)	324.27	157.24	16.86	498.37
Net Generation (MU)	321.03	155.67	16.74	493.44
Fixed Cost (Rs Crs/annum)	36.80	22.75	6.22	59.55
Energy Charge Rate (Rs/kWh)	7.82	8.22		16.04
PLF (%)	59	42.74	19.25	
PAF (%)	87.52	95.86		

Table 23: ARR and Generation tariff determination for FY 24-25 (Projected) in the Generation business (Rs. Crore)

Parameters	RGTPP	BGTPP	GHEP	Total
Annual Fixed Charges				
O&M Expenses	14.12	7.49	5.46	27.06
Depreciation	5.18	5.84	0.80	11.83
Interest and Finance Charges	-			
Return on Equity	9.85	6.73	0.67	17.25
Interest on Working Capital	5.84	0.93	0.32	7.09
Less: Non-Tariff Income	0.21	0.19	0.22	0.62
Total	34.78	20.80	7.04	62.62
Energy Charges				
Fuel Cost	131.39	2.71		134.10
HSD Cost				
Total	131.39	2.71		134.10
Net ARR	166.17	23.51	7.04	196.72
Gross Generation (MU)	182.12	3.45	5.10	190.67
Net Generation (MU)	180.30	3.42	5.05	188.76
Fixed Cost (Rs Crs/annum)	34.78	20.80	7.04	55.58
Energy Charge Rate (Rs/kWh)	9.22	68.77		77.98
PLF (%)	0.33	0.94	0.06	
PAF (%)	87.52	95.86		

Table 24: ARR and Generation tariff determination for FY 25-26 (Projected) in the Generation business (Rs. Crore)

Parameters	RGTPP	BGTPP	GHEP	Total
Annual Fixed Charges				
O&M Expenses	14.99	9.31	6.07	30.37
Depreciation	5.18	5.84	0.80	11.83
Interest and Finance Charges	-			
Return on Equity	9.85	6.73	0.67	17.25
Interest on Working Capital	10.46	2.01	3.32	15.79
Less: Non-Tariff Income	0.21	0.19	0.22	0.62
Total	40.28	23.70	10.64	74.62
Energy Charges				
Fuel Cost	265.90	117.96		383.86
HSD Cost				

Total	265.90	117.96		383.86
Net ARR	306.18	141.66	10.64	458.49
Gross Generation (MU)	364.24	165.56	0.00	529.80
Net Generation (MU)	360.60	163.91	0.00	524.51
Fixed Cost (Rs Crs/annum)	40.28	23.70	10.64	63.98
Energy Charge Rate (Rs/kWh)	8.49	8.64	-	17.13
PLF (%)	0.66	0.45	0.00	-
PAF (%)	87.52	95.86	-	-

5. ARR for Transmission Business of TSECL for MYT Control Period (FY 2024-25 to FY 2025-26)

5.1. Expenditure

5.1.1. Operation and Maintenance Cost

59. The O&M cost comprises of employee cost, repair and maintenance cost and administrative and general expenses. The actual O&M Cost as per audited division wise account statements for FY 2023-24 along with the projected figures for FY 2024-25 to FY 2025-26 as detailed below:

Table 25: O&M Cost in Rs. Crores for FY 22-23 to 25-26

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Actual Operation & Maintenance Cost for Transmission				
Employee Cost	19.67	20.11	21.11	22.04
Repair & Maintenance	4.49	6.31	8.67	11.92
A&G Cost	4.22	7.03	7.38	7.01
Total O&M Cost	28.38	33.46	37.16	40.97

60. The employee cost of transmission business has been projected based on assumption of average annual escalation rate of 5.0% salary increase from previous year. In Transmission function, there is no major recruitments planned in current or ensuing year.

61. The increase in value of O&M costs are attributed mainly because of the increase in cost of repair and maintenance of transmission assets due to infrastructure upgradation and rise in A&G costs (professional fees, hiring charges for vehicles). The O&M expenses have been projected similar to the distribution business since the nature of business is similar and most of the O&M expenses in TSECL is on account of the distribution business only.

5.1.2. Depreciation

62. For the calculation of depreciation, the depreciation rates have been taken from Tariff Regulation (Multi Year Tariff) 2015 on the gross asset value.

Table 26: Rate of Depreciation as per Tariff Regulation

Particulars	Depreciation Rate as per Tariff Regulation
Land	0.00%
Building	3.34%
Plant & Machinery	5.28%
Computer	15.00%

Particulars	Depreciation Rate as per Tariff Regulation
Computer and Office Equipment	15.00%
Office Equipment	6.33%
Furniture	6.33%
Vehicles	9.50%

63. The depreciation asset value in transmission business has been kept the same as previous year value found in FY 23-24. For the current year in FY 24-25, Depreciation calculation hasn't been booked yet hence we have considered the Depreciation values in current and future years are similar to last year FY 23-24 audited statements.

64. Category wise depreciation calculation for ARR is tabled below:

Table 27: Depreciation of Transmission Assets from FY 22-23 to 24-25

Depreciation	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Total	6.10	8.01	8.01	8.01

5.1.3. Interest on Working Capital

65. TSECL does not have any long terms loan taken for transmission business and as such is not considering any interest on loans. However, the interest on working capital is being claimed on normative basis as provided below.

66. The working capital is estimated for calculating the normative interest charges to be allowed for financing the working capital requirements. The Petitioner is eligible for interest on working capital worked out on methodology specified in the Regulations for transmission and distribution business as provided below:

- i. Receivables equivalent to two months of fixed cost;
- ii. Maintenance spares @ 15% of operation and maintenance expenses specified in Clause 31; and
- iii. Operation and maintenance expenses for one month.

67. In accordance with the TERC Tariff Regulations (Multi Year Tariff), 2015, the interest on the working capital requirement would be the SBI Base Rate plus 300 basis points as on 1st April of the year for which tariff is determined. The Petitioner in the instant Petition has considered the interest rate on working capital requirement at 13.10% (10.10%+ 3%) for FY 23-24 and 13.25% (10.25%+ 3%) for FY 24-25 based on April'24 rate of interest.

68. The historical SBI base rate is tabulated below which has been used to calculate the normative interest rate.

Table 28: Historical SBI base rate and interest rate

Effective Date for SBI Base Rate	Interest Rate (%)
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Effective Date for SBI Base Rate	Interest Rate (%)
15.06.2024	10.40%
15.03.2024	10.25 %
15.12.2023	10.25 %
15.09.2023	10.10 %
15.06.2023	10.10 %
15.03.2023	10.10 %
15.12.2022	9.40 %
15.09.2022	8.70 %
15.06.2022	8.00 %
15.03.2022	7.55 %

69. Based on the above, the normative working capital requirements as per TERC regulations, the normative interest component on same and actual interest to be incurred for working capital is tabulated by taking the past years trends and current year's value as given below:

Table 29: Interest on Working Capital in Rs. Crores for FY 22-23 to 25-26

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Receivables (2 month)	8.49	10.33	11.02	11.68
Maintenance Spares @ 30% of O&M Expenses	4.26	5.02	5.57	6.15
O&M Expense for 1 month	2.37	2.79	3.10	3.41
Working Capital	15.12	18.14	19.69	21.24
Rate of Interest	10.55%	13.10%	13.25%	13.25%
Interest on Working Capital	1.59	2.38	2.61	2.81

5.2. Non-tariff Income

70. The other income of TSECL covers mainly interest earned on fixed deposits made in various banks, sale of tender forms and other miscellaneous income like sale of scrap, sale of tender, meter rent etc. These incomes are being separately booked under other income category. The projections have been done based on the trend of income in the previous years and was well as in the current year in FY 24-25 (as of Sep'24). Based on this the Non-Tariff Income is shown below from FY 22-23 to FY 25-26 (projected) as:

Table 30: Non-Tariff Income from FY 22-23 to 24-25

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Non-Tariff Income for Transmission	0.03	0.02	0.07	0.12

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Total	0.03	0.02	0.07	0.12

5.3. Return on Equity and Tax on Income

71. As per Clause 26 of Tariff Regulation (Multi Year Tariff) 2015, Return on Equity shall be computed at a base rate of 15.50% for transmission.

72. The amount of equity base to be considered for calculation of return has been considered based on the relevant clause (clause 21) of Tariff Regulation (Multi Year Tariff) 2015, which states

“For a project declared under commercial operation on or after 16th Oct 2015, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan. In case of the generating station declared under commercial operation prior to 16th Oct 2015, debt-equity ratio allowed by the Commission for determination of tariff for the period ending the year before the date of publication of above regulation on the Official Gazette shall be considered”.

73. It may be noted that the Commission in its past orders had considered equity base for the transmission projects as 30% of the Gross Fixed Asset Value and as such the same is considered here for the purpose of calculation of RoE based on legal precedent as per past orders. Equity fund of TSECL is calculated after allocating equity fund of TSECL in the Gross fixed assets ratio among generation, transmission and distribution business. After that equity fund of generation business allocated among three plants based on gross fixed assets ratio for each of the plants.

74. As per Clause 27 of Tariff Regulation (Multi Year Tariff) 2015,

The base rate of return on equity as allowed by the Commission under Clause 26 (mentioned above) shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts.

75. The tax portion on Return on Equity has not been claimed as no tax payment was booked in the audited accounts statement in FY 23-24 because of accumulated financial losses in the books of TSECL.

76. The return on equity computed on paid up capital is summarized in the table given below:

Table 31: Calculation of Equity Fund and Return on Equity in Rs. Crores for FY 22-23 to 24-25

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Sep'24)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Transmission business					
Total GFA	320.52	390.70	396.16	396.16	396.16

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Sep'24)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Normative Equity fund (30% of GFA)	96.16	117.21	118.85	118.85	118.85
Equity fund considered for RoE (Min of actual and normative)	96.16	117.21	118.85	118.85	118.85
Return on Equity	14.90	18.17	18.42	18.42	18.42
Tax	0.00	0.00	0.00	0.00	0.00

5.4. Summary of MYT for FY 2024-25 to FY 2025-26

77. Based on the details of expenditure and non- tariff income given above and determined in accordance with TERC tariff regulations, the total annual revenue requirement is calculated below:

Table 32: Summary of Transmission ARR for FY 22-23 to 25-26 (INR Crores)

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Expenditure				
1. Operation & Maintenance Cost	28.38	33.46	37.16	40.97
Employee Cost	19.67	20.11	21.11	22.04
Repair & Maintenance	4.49	6.31	8.67	11.92
A&G Cost	4.22	7.03	7.38	7.01
2. Finance Cost	0.00	0.00	0.00	0.00
3. Depreciation	6.10	8.01	8.01	8.01
4. Interest on Working Capital	1.59	2.38	2.61	2.81
Total Expenditure (1+2+3+4)	36.07	43.84	47.78	51.79
Add: Return on Equity with Tax	14.90	18.17	18.42	18.42
ARR	50.98	62.01	66.20	70.21
Less: Non-Tariff Income	0.03	0.02	0.07	0.12
Net ARR	50.95	61.99	66.13	70.09

Intra-state Transmission Charges incurred by TPTL for FY 2020-21 to 2025-26 (projected) is shown below as:

Parameter	FY20-21 (Actual)	FY21-22 (Actual)	FY22-23 (Actual)	FY23-24 (Actual)	FY24-25 (Estimated)	FY25-26 (Projected)
Total Unit transmitted or wheeled (in MU)	1417.91	1507.20	1553.57	1669.06	1720.82	1776.35
Net ARR (INR Crores)	47.01	61.09	50.95	61.99	66.13	70.09
Transmission Charges (Paisa/kWh)	33.16	40.53	32.80	37.14	38.43	39.46

6. ARR for Distribution Business of TSECL for MYT Control Period (FY 2024-25 to FY 2025-26)

6.1. Introduction

78. This section deals with the Aggregate Revenue Requirement (ARR) of distribution business of TSECL for the MYT control period of FY 2024-25 to FY 2025-26. TSECL has calculated the ARR and tariff requirements for transmission & distribution of power within the State as per the **TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023**, issued on 15.03.2023.

79. TSECL is filing its Aggregate Revenue Requirement (ARR) and Tariff Petition for distribution business for the fourth time separately from generation and transmission business before the Hon'ble Commission as a step towards unbundling in power sector of Tripura. The break-up of costs in generation, transmission and distribution business, wherever necessary for ARR and tariff calculation, have been done based on the division wise break-up of account statements and making suitable assumptions, as necessary, for the common functions like accounts and finance, HR, projects etc. at corporate level.

80. As on date, the statutory audit of the account statements till FY 2023-24 has been completed. The provisional account statements of FY 24-25 (upto Sep'24) are also available. The ARR is calculated based on the actual data available of FY 23-24 as well as actual data of FY 24-25 (upto Sep'24). The ARR of FY 24-25 to 25-26 have been projected based on the trends of previous years, data available for current year and norms specified in the TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 and as detailed in the subsequent paragraphs.

81. The detailed schedules and formats of the Revenue Requirement Form from FY 24-25 to 25-26 are given in the subsequent sections.

6.2. Category wise growth in Sales

82. The category wise actual growth in Units Sold is shown in the table below. The overall sales of FY 24-25 to 25-26 are projected based on the sales of the past years and certain assumptions.

Table 33: Actual Growth in Sales for FY 20-21 to 23-24 (Actual) and from 24-25 to 25-26 (projected)
All figures are in Million Units (MUs)

Sl. No.	Category	FY 2020-21 (Actual)	FY 21-22 (Actual)	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
1.	Domestic	571.09	640.38	630.83	648.56	676.65	705.96
2.	Public lighting	46.07	11.49	11.59	14.98	14.98	14.98
3.	Commercial	72.00	68.12	73.13	79.38	79.38	79.38
4.	Irrigation & Water	38.00	47.75	55.21	60.02	69.90	81.40
5.	Public water works	75.95	99.53	118.86	149.96	162.70	176.53

Sl. No.	Category	FY 2020-21 (Actual)	FY 21-22 (Actual)	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
6.	Industries	43.44	52.09	50.75	50.56	53.18	55.94
7.	MOBILE TOWER	28.32	59.95	59.56	67.08	72.79	78.97
8.	Bulk supply	87.54	115.86	137.26	153.28	166.31	180.44
9.	Tea Garden	2.80	4.03	3.40	3.17	3.31	3.31
10.	Kutirjyoti	17.13	-	9.67	8.62	8.62	8.62
11.	Total:	982.33	1099.22	1150.27	1235.62	1307.83	1385.55

83. In this petition, TSECL has proposed some tariff provisions to incentivize growth of industries and promote increase industrial consumption in the state. This would not only help the development and economic growth in the state but also help TSECL improve its HT:LT ratio of sales, reduce losses and improve revenue. Based on the approval from TERC and subsequent responses, the future trajectory of sales may have been taken accordingly in this MYT period based on the true-up of the previous year and current year energy sales.

Table 34: Category wise Growth Rate in Sales and its Basis

Sl. No.	Category	Growth Rate
1.	Domestic	4.33%
2.	Public lighting	0% (negative growth rate over last few years)
3.	Commercial	3.31%
4.	Irrigation & Water	16.46%
5.	Public water works	8.50%
6.	Industries	5.19%
7.	MOBILE TOWER	8.50%
8.	Bulk supply	8.50%
9.	Tea Garden	4.28%
10.	Kutirjyoti	0.00%
11.	Overall	7.95%

6.3. Transmission and Distribution Loss

84. The table below highlights the Actual T&D losses for FY 2022-23, FY 2023-24 and FY 2024-25 (Sep'24) and Projections for FY 2024-25 to FY2025-26:

Table 35: T&D Loss for FY 22-23 to 25-26

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Sep'24)	FY 24-25 (Estimated)	FY 25-26 (Projected)
Distribution Loss (%)	25.96%	25.97%	28.50%	24.00%	22.00%
Transmission Loss (%)	4.44%	2.22%	2.05%	2.28%	2.34%
T&D Losses (%)	30.40%	28.19%	30.65%	26.28%	24.34%

85. The Inter-State Transmission losses for FY 24-25 and 25-26 has been considered at 2.33% as per the value obtained in FY 22-23 as per the latest NER transmission loss report figures published by NERLDC. For Intra-state Transmission losses for FY 24-25 and FY 25-26 has been considered at 3.00% as per the loss approved by the Commission in its tariff order dated 14.08.2024.

86. The high level of T&D loss is due to increase in the LT:HT ratio as a result of extensive village electrification, new service connection in remote areas over the years, huge increase in the last mile connectivity and LT network etc. The LT:HT ratio for intra-state sale of power was found during the truing-up of FY 2023-24 is found to be 346/100 (or 3.46) and for FY 2024-25 (till Sept'24) it is at actual 371:100 (or 3.71). During this period, the state has also seen a number of severe hailstorms and thunderstorms resulting in damage to the electrical network and increasing load on the electrical network thereby increasing technical losses. TSECL has been suffering from old ageing and overloaded assets like transformers/lines due to limited investment in strengthening and upgradation of distribution network particularly in HT network of 33 kV and 11 kV.

87. TSECL is making sincere efforts in electrifying the un-electrified areas of the state at a fast pace under grants and loans provided by the Rural Electrification Corporation (REC) under the Rajiv Grandhi Gramin Viduyatikaran Yojna (RGGVY) and Saubhagya Scheme. Through the implementation of the scheme the TSECL has provided the electricity to the far-flung areas and villages to of the Tripura state. At the same time, due to increase in the LT network and the domestic and Kutir Jyoti consumers, losses of the utility are also increasing at considerable pace. Through different loss reducing measures and schemes the TSECL has remained successful to contain the losses at the level mentioned in the Petition.

88. In the past few years, TSECL has made limited investments in its distribution network for modernization, system improvement and loss reduction. However, now, TSECL is implementing large system improvement schemes under ADB funding as well as under the GoI scheme of RDSS (Revamped Distribution Sector Scheme) to reduce losses and the effect of such measures is expected to gradually reflect in the performance of T&D losses.

89. In light of above made submission, we therefore request the Hon'ble Commission to approve the above projected T&D losses of the TSECL.

6.4. Energy Balance

90. Based on the T&D Loss above the energy balance for FY 2023-24 to FY 2025-26 has been calculated and shown below for the MYT period of FY 24-25 to FY 25-26.

91. It may be noted that for inter-state sale of power, TSECL presently has an agreement with Bangladesh for power sale till the end of FY 2025-26 and as such, the same has been considered in the projections. The agreement for sale of power to Bangladesh was first done by TSECL with NVVNL as the trader on 18.03.2016 and the same PPA has been extended vide Supplementary Agreement dated 2nd December 2021, wherein it was agreed that TSECL would sell a quantum of 160 MW +20% (maximum of 192 MW) to Bangladesh via NVVNL where NVVNL would purchase power from TSECL and supply to Bangladesh Power Development Board

(BPDB) for a quantity of 160 MW (max. of 192 MW) starting from 17th March 2021 with fixed year escalation of 2% every year till 16th March 2026. The rate of PPA signed between TSECL and NVVNL for sale of power to BPDB is given below:

Table 36: Rate of PPA signed between TSECL and NVVNL for sale of power to BPDB

Year	Tariff (INR/kWh) with Simple Escalation of 2% per Year i.e. INR 0.1254/kWh (A)	Trading Margin by NVVNL (paise/kWh) with Simple Escalation of 2% per Year i.e. INR 0.02/kWh (B)	Net Tariff (INR/kWh) payable to TSECL (A-B)
1st Contract Year	6.2700	1.00	6.260
2nd Contract Year	6.3954	1.02	6.3852
3rd Contract Year	6.5208	1.04	6.5104
4th Contract Year	6.6462	1.06	6.6356
5th Contract Year	6.7716	1.08	6.7608

92. However, the energy balance and financial projections for TSECL is expected to be heavily impacted as currently the revenue generated from Bangladesh sale shall be deeply impacted if the sale to Bangladesh does not continue further beyond FY 2025-26 and the gap between cost and revenue will increase significantly in such a scenario. Moreover, owing to the ongoing geo-political situation in Bangladesh, the sale in current year (FY 24-25) has reduced significantly. The Hon'ble Commission is requested to take the dynamic situation for TSECL based on the sale to Bangladesh while approving the ARR projections of TSECL.

Table 37: Energy Balance figures for FY 22-23 to FY 25-26

All figures are in Million Units (MUs)

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Sep'24)	FY 24-25 (Projected)	FY 25-26 (Projected)
Energy from CGS	2642.53	2672.735	1366.268	2859.00	3117.58
Inter State Sales	1492.77	1364.193	423.247	1235.91	1779.63
Energy Trading	0.00	0.000	0.000	0.00	0.00
Energy Swapping	0.00	0.000	0.000	0.00	0.00
UI	53.05	43.703	9.966	43.70	43.70
Sale to Mizoram	67.71	40.617	0.389	0.78	40.62
Sale to Manipur	11.22	0.000	0.000	0.00	0.00
IEX	327.86	206.635	56.668	478.98	982.86
Bangladesh Sale	1032.92	1073.238	356.223	712.45	712.45
Inter State Transmission Loss @2.33%	55.27	81.307	40.333	37.82	31.17
Power Purchase	0.00	0.00	0.00	0.00	0.00

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Sep'24)	FY 24-25 (Projected)	FY 25-26 (Projected)
from Other Sources					
ISGS Energy at State Bus (MU)	1094.49	1227.23	902.69	1585.27	1306.78
Energy from State Generation	558.24	493.44	115.568	188.78	524.51
Energy at State Bus	1652.73	1720.68	1018.256	1774.05	1831.29
Intra State Transmission Loss @3%	99.16	51.62	30.548	53.22	54.94
Energy at 11 kV level	1553.57	1669.06	987.71	1720.82	1776.35
Distribution Loss	403.30	433.44	281.51	413.00	390.80
Distribution Loss (%)	25.96%	25.97%	28.50%	24.00%	22.00%
Energy Sales	1150.27	1235.620	706.202	1307.83	1385.55
T&D Loss (%)	30.40%	28.19%	30.65%	26.28%	24.34%

93. The actual value of inter-state transmission loss based on total of injection loss and withdrawal loss for FY 23-24 to FY 25-26 is considered to be as 2.33%, based on annual compendium reports of NERLDC (<https://www.nerldc.in/annual-compendium/>).

6.5. Power Purchase

94. TSECL procures power from NEEPCO, NHPC, NTPC and OTPC. TSECL is receiving power from OTPC Palatana since Jan 2014.

95. The following tables shows the power procurement cost for FY 22-23 to FY 25-26:

*Table 38: Power Purchase Cost for FY 22-23 to FY 25-26
All figures are in Rs. Crores*

Power Purchase Data	FY 22-23 (Actual)			FY 23-24 (Actual)		
	Cost (INR crores)	Energy Purchased (MUs)	Cost Per Unit (INR per unit)	Cost (INR crores)	Energy Purchased (MUs)	Cost Per Unit (INR per unit)
NEEPCO	548.21	1105.83	4.96	502.77	941.27	5.25
NHPC	21.60	56.14	3.85	23.77	33.90	4.37
NTPC	66.42	96.77	6.86	196.78	335.57	5.60
OTPC	419.95	1286.08	3.27	415.73	1194.31	3.41
NEEPCO Solar	2.25	6.61	3.40	2.15	5.53	3.89
PGCIL Charges	142.92	-	-	142.85	0.00	0.00
Short term Power Purchase (IEX, DSM, swapping)	81.04	124.06	6.53	99.52	162.15	5.58
TOTAL	1282.39	2675.49	4.79	1,383.58	2672.73	4.94

Power Purchase Data	FY 24-25 (Sep'24)			FY 24-25 (Estimated)		
	Cost (INR crores)	Energy Purchased (MUs)	Cost Per Unit (INR per unit)	Cost (INR crores)	Energy Purchased (MUs)	Cost Per Unit (INR per unit)
NEEPCO	273.32	544.22	5.02	525.25	1026.70	5.12
NHPC	14.53	40.86	3.56	22.63	51.77	4.37
NTPC	150.99	253.13	5.96	195.26	348.83	5.60
OTPC	193.42	563.37	3.43	412.25	1210.36	3.41
NEEPCO Solar	1.35	3.25	4.15	2.42	5.83	4.15
PGCIL Charges	66.71	-	-	124.95		
Short term Power Purchase (IEX, DSM, swapping)	81.49	152.34	5.35	140.77	215.50	6.53
TOTAL	781.80	1557.16	5.02	1423.53	2859.00	4.98

Power Purchase Data	FY 25-26 (Projected)		
	Cost (INR crores)	Energy Purchased (MUs)	Cost Per Unit (INR per unit)
NEEPCO	564.99	1037.09	5.45
NHPC	28.56	59.62	4.79
NTPC	202.17	355.65	5.68
OTPC	422.26	1215.75	3.47
NEEPCO Solar	2.69	5.94	4.54
PGCIL Charges	144.63		
Short term Power Purchase (IEX, DSM, swapping)	187.08	286.39	6.53
SECI Solar 50 MW (* for ARR of FY 25-26)	21.72	83.22	2.61
Subhanshri Hydro Power (30 MW)	44.35	73.91	6.00
TOTAL	1618.45	3117.58	5.19

96. For the current and the projected period, TSECL had taken certain measures for increase in power procurement by the following means:

- Re-allocation of NTPC Bongaigaon Power Plant which was initially planned to be de-listed in FY 23-24 due to having high average cost of INR 6.7 per unit, has now been re-allocated 50 MW to its original capacity. This is after discussion from the Power Ministry and Govt. of Tripura, Power Dept., the power is reallocated/not surrendered based on the onus of increasing sales to Bangladesh which implied that is an increase in power requirement from FY 23-24. Hence NTPC BgPP, has been re-allocated of the lost 50 MW of power and the same effect on power purchase quantum has been considered from FY 23-24 till FY 25-26.
- Furthermore, the SECI Solar Power procurement of 50 MW will also be operational from FY 2025-26@INR 2.61/kWh which will also contribute to power procurement optimization. The same has been considered in the power purchase quantum of TSECL from FY 25-26 onwards in its allocation of power purchase.
- Power procurement from Subhansiri Hydro Power project (Total of 30 MW in four stages of 7.5 MW each expected to be operational in every quarter of FY 25-26) of NHPC from FY 2025-26

@INR6/kWh has been planned in the power purchase quantum of TSECL, hence the same has been considered.

97. The power purchase cost for FY 2024-25 and FY 2025-26 has been projected based on the actual source wise energy (MU) generation observed in FY 2023-24 and escalating the per unit cost by 2-3% from the actual per unit cost of FY 2023-24 which is projected in FY 2025-26. The power purchase quantum has been assumed based on the actual generation of last 2 years and incorporating the effects of change in allocations as mentioned above.

6.6. Transmission Charges

98. The following table shows the Inter State transmission charges for FY 2022-23 to FY 2025-26 which is paid to PGCIL for availing their transmission network for inter-state power procurement as given below:

*Table 39: Transmission Charges for FY 22-23 to FY 25-26
All figures are in Rs. Crore*

Inter-State Transmission Charge	FY 20-21 (Actual)	FY 21-22 (Actual)	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
Inter State	52.24	142.92	142.95	142.85	124.95	144.63
Total	52.24	142.92	142.95	142.85	124.95	144.63

99. The Total Intra-State Transmission charges (paise/kWh) against total units transmitted or wheeled are given as:

Table 40: Intra-State Transmission charges (Paise/kWh) against total transmitted units wheeled (MU)

Parameter	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
Total Unit transmitted or wheeled (in MU)	1553.57	1669.06	1720.82	1776.35
Net ARR	50.95	61.99	66.13	70.09
Transmission Charges (Paise/kWh)	32.80	37.14	38.43	39.46

100. The Hon'ble Commission is requested to approve the intra state transmission charges as detailed above.

6.7. O&M Expenses

101. TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 stipulates the O&M cost to be comprising of Employee cost, R&M expense and A&G expense.

102. O&M expenses have been projected based on TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023. The employee cost of distribution business has been projected based on an assumption of annual average 5% increase in salary and the change in number of employees expected (based on retirements) in FY 24-25 and FY 25-26 is considered based on the actual data provided by the TSECL. .

103. The R&M expenses in distribution are quite high as the assets are old and because of the terrain of the state which has high forest coverage, high frequency of gayles, thunderstorms etc. The expenses are required for keeping the reliability of the power supply.

104. The A&G expenses for FY 23-24 has increased and is expected to increase in FY 24-25 and FY 25-26 on account of increase in technical and manpower costs incurred for various power infrastructure projects undertaken by TSECL in various schemes such as ADB, RDSS projects which has been implemented for power infrastructure improvement and strengthening projects. TSECL has hired contractual manpower and support staff for executing the power infrastructure strengthening projects for necessary augmentation and strengthening work for improvement of overall distribution network within the state of Tripura.

105. The actual O&M expense for FY 23-24 and the projected figures for FY 24-25 and FY 25-26 for distribution business is provided below. The expenses of FY 24-25 has been prorated based on the actual expenses found during truing-up in FY 23-24 and then projected based on the CAGR method found for the last 3 years period. Similarly for FY 25-26 projections for the increase in O&M expenses have been found from previous three years trend using CAGR method except for A&G cost which have been kept the same as found during truing-up of FY 23-24. The detailed cost of O&M expenses are given below:

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*Table 41: O&M Expense for Distribution Business for FY 22-23 to 25-26
All figures are in Rs. Crore*

Parameter	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 24-25 (Estimated)	FY 25-26 (Projected)
Employee Cost	160.67	158.28	163.53	171.12
R&M Cost	20.45	23.66	23.66	25.35
A&G Cost	31.03	61.55	61.55	61.55
Total O&M Expenses	212.15	243.50	248.75	258.02

6.8. GFA and Depreciation

106. The Regulation 24 of the TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 provides direction for treatment of depreciation. The relevant extract of the regulation is as under:

“24. Treatment of Depreciation:

- I. Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year
- II. Depreciation shall not be allowed on assets funded by capital subsidies consumer contributions or grants
- III. The Commission shall define the rate of depreciation for each of the components of the fixed assets based on the useful life of the assets, as indicated at Annexure - II, and after considering the salvage value of the categories of the assets

Provided the salvage value of the category of the assets shall be as decided by the Commission taking into account the costs of removal / disposal of assets. However, the salvage value of the any category of assets defined at Annexure – II shall not exceed 10% of the initial cost of the asset.

IV. *The rate of depreciation should be based on Straight Line Method (SLM) over the useful life of the assets, after factoring the salvage value of the assets*

Provided that Land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of asset.”

107. For the calculation of depreciation, the depreciation rates have been taken from Companies Act 1956/TERC Tariff Regulations 2004 under the Straight-Line Method on the gross asset value and no depreciation is claimed on assets created out of government grants.

108. The Gross Fixed Assets (GFA) and depreciation for TSECL is taken from the account statements of respective years. The Petitioner has considered the depreciation in the following manner:

- full year depreciation on the opening balance of GFA
- reduction of depreciation on assets which are fully depreciated
- reduction of depreciation on assets created out of government grants

Table 42: Rate of Depreciation as per Companies Act 1956

Particulars	Depreciation Rate (Salvage Value=10%)- SLM
Land	0.00%
Building	3.34%
Plant & Machinery	5.28%
Computer	15.00%
Computer and Office Equipment	15.00%
Office Equipment	6.33%
Furniture	6.33%
Vehicles	9.50%

109. As already mentioned above, the gross asset base booked in account statements includes assets created out of government grants. However, in accordance with accounting procedures as well as regulatory practices in other states, depreciation on such assets has not been claimed to be recovered through tariff and ARR. Further, the assets which have completely depreciated have also been deducted from the total gross value of assets shown in account statements for the purpose of calculation of depreciation. The Category wise depreciation calculation are tabled below for FY 22-23 to FY 25-26:

Table 43: Depreciation for Distribution business for FY 22-23 to FY 24-25 (in Rs Crores):

Depreciation	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Opening Asset Base	-	775.84	848.68	1,363.86

Depreciation	FY 2022-23 (Actual)	FT 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Closing Asset Base	-	848.68	1,363.86	1,771.55
Average asset base (GFA)	706.345	812.26	1106.27	1567.70
Average depreciation rate	1.34%	1.42%	1.42%	1.42%
Total	9.44	11.52	15.68	22.23

110. The asset value (GFA) for FY 2024-25 and FY 2025-26 has been considered based on ongoing ADB and RDSS projects being undertaken by TSECL for power infrastructure improvement and strengthening. Further, there is a huge CWIP in FY 23-24 closing which is expected to be capitalized in FY 24-25 and FY 25-26. The calculation on asset addition based on the capex under RDSS and ADB schemes is provided below:

Capex and Capitalization Plan *Figures in INR crores*

Particulars	FY 2023-24	FY 2024-25	FY 2025-26
Provable Expenditure under ADB	213.00	329.00	267.00
Provable Expenditure under RDSS	115.38	406.97	0.00
TOTAL	328.38	735.97	267.00
Assuming 70% capex to be capitalized in the same year		515.179	407.691

6.9. Interest and Finance Charges

111. TSECL has taken some term loans under the Central Government Schemes of RGGVY, DDUGJY, Saubhagya and IPDS. In addition to this, the finance charges such as guarantee charge, bank commission for Letter of Credit etc. have been shown under interest and finance charges.

112. The TSECL has taken loans from the PFC/REC/ Govt. of Tripura/PNB. The details about the loan taken by TSECL is given below:

- **Loan from REC for RGGVY and DDUGJY:** The fund is released by REC under RGGVY scheme. 90% of the approved cost is provided as grant and remaining 10% as loan. This fund is not given directly to TSECL but is disbursed through Government of Tripura. TSECL is paying interest on this loan on behalf of GoT in 10 equal yearly installments. In the accounts, this loan is treated under head 'GoT loan'. The moratorium period of 5 years is provided on repayment of this loan. The loan from REC for RGGVY and DDUGJY have been taken at 10.5% and at 10.75% quarterly.
- **Loan from REC for Saubhagya scheme:** The fund is released by REC under Saubhagya scheme at 10.66% monthly rate for rural electrification project.
- **Loan from PNB (Earlier UBI):** This is a working capital loan taken for the payment of outstanding dues of NEEPCO and OTPC in FY 2016-17. Since, this is a working capital loan and the same has been claimed as per norms separately, the same is not considered here in this petition.

- **Loan from PFC for IPDS/RAPDRP:** The fund is released by PFC under various schemes. 100% of the approved cost is provided as loan from the Government of India through Gross Budgetary Support (GBS). The loan along with interest @ 11.067% thereon shall be converted into grant once the establishment of the required system is achieved and verified by an independent agency appointment by Ministry of Power (MoP). No conversion to grant will be made in case projects are not completed within 3 years from date of sanction of the project. In such case, TSECL will have to bear full loan and interest repayment. As no interest payment and repayment schedule is mentioned for PFC loan for the computation of interest and finance charges in this petition no repayment of loan from PFC has been considered.
- **Loan from Govt. of Tripura (GoT):** The Government of Tripura loan is disbursed as interest free loans from the state government under budgetary Non-Plan consideration and to be repaid to the GoT under 30 equal installments within a period of 15 years as provided in Memorandum of the government of Tripura dated 17th July 2009. The TSECL is persuading with the government of Tripura to convert this interest free loan into equity portion. TSECL has not claimed interest on this loan as of now.

113. For projection of Interest and Finance charges in FY 2024-25 & FY 2025-26, there is an additional interest that has been considered from Canara Bank for Cash Credit purposes which is accounted for project expenditure in distribution schemes. The loan taken for this purpose is @ 8.25% rate of interest, repayable in 1 year in equated monthly investments. The effect of this interest has been considered in the interest and finance charges projection for two years in FY 24-25 and in FY 25-26.

114. The interest on Term Loans and Finance Charges from FY 22-23 (actual) to FY 25-26 (projected) have been detailed as under:

Table 44: Interest amount on Term Loans and Finance Charges for the period FY 22-23 to FY 25-26

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Interest on REC loan for RGGVY @average rate of 10.59%	0.24	0.21	0.21	0.21
Loan Processing Fees	1.787	1.05	1.05	1.05
Bank Commission for Letter of Credit	0.058	1.83	1.83	1.83
Interest on IPDS loan @average rate of 10.75%	1.58	1.52	1.52	1.52
Interest on Saubhagya Loan (@10.66% monthly)	3.48	3.61	3.61	3.61
Interest for DDUGJY (@10.66% monthly in two Tranches)	0.62	0.59	0.59	0.59
Interest on consumer security deposit	-	4.36	4.36	4.36
Interest projected for Canara Bank loan for CC (Cash Credit) purpose			8.00	13.00
Proposed Interest for Truing up	7.76	13.17	21.17	26.17
Approved Interest & finance charges in Tariff Order	7.4	7.76	7.76	7.76

115. Thus, the interest and finance charges summarized for FY 24-25 to FY 25-26 (projected) period is considered the same as in FY 23-24 actual figures, due to non-finalization of interest on loans data in current financial year (24-25). The summary of Interest & Finance charges for FY 22-23 to 25-26 is shown below:

Table 45: Interest on Finance Charges (In Crores)

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Interest on Finance Charges	7.76	13.17	21.17	26.17

6.10. Interest on Working Capital

116. The TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023, issued on 15.03.2023, has updated the provision for normative Interest on Working Capital based on the methodology outlined in the Regulations. The Petitioner is eligible for interest on working capital worked out on methodology specified in the Distribution Regulations specific for distribution business as provided below:

1. Operation and Maintenance expenses (O&M) for one month;
2. Receivables equivalent of Two months of expected revenue accounted from distribution business;
3. Maintenance spares @ 40% of Repair & Maintenance (R&M) expenses for one month
Less:
4. Security deposits from consumers, if any;

117. In accordance with the TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023, the Interest on the Working Capital should be on normative basis and the rate of interest shall be equal to the **State Bank Advance Rate (SBAR)** as of the date on which petition on which determination of tariff is accepted by the Commission. For the FY 2023-24, Petitioner has considered the interest rate on working capital at the rate of State Bank Advanced Rate (SBAR) applicable for the year which is equivalent as per SBI Benchmark Prime lending rate (as of 01.04.2024, which is equal to 14.85%). Also, consumer security deposit needs to be deducted from the summation of O&M expenses and receivables as per the new Regulations, which has been kept the same as found during the truing-up of FY 2023-24.

118. The Petitioner in accordance with the above-mentioned Regulations, calculated the interest on working capital as shown in the table below:

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*Table 46: Interest on Working Capital for Distribution Business for FY 22-23 to 25-26
All figures are in Rs. Crore*

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Receivables (2 month)	188.65	208.26	212.73	249.98
Maintenance Spares @ 40% of R&M Expenses	31.82	9.47	9.47	10.14

Particulars	FY 22-23 (Actual)	FY 23-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
O&M Expense for one month	17.68	20.29	20.73	21.50
Less: Security deposit held by Consumers	-	46.45	46.45	46.45
Working Capital	238.15	191.57	196.48	235.18
Rate of Interest	10.55%	14.85%	15.00%	15.00%
Interest on Working Capital	25.13	28.45	29.47	35.28

6.11. Return on Equity and Tax on Return on Equity

119. The Regulation 27 of the TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 provides direction for treatment of return on equity. The amount of equity base to be considered for calculation of return has been considered based on the relevant clause (clause 27) of TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023. The relevant extract of the regulation is as under:

“27. Treatment of Return on Equity:

- I. *Return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower:*

Provided that assets funded by consumer contribution, capital subsidies/grants and corresponding depreciation shall not form part of the capital base. Actual equity infused in the Distribution Licensee as per book value shall be considered as perpetual and shall be used for computation in this Regulation:

Provided, that accumulated depreciation, over and above debt repayment, shall be used to reduce the equity base for return on equity after debt repayment is over.

- II. *The return on the equity invested in working capital shall be allowed from the date of start of commercial operation:*

- III. ***Distribution Licensee shall be allowed 11% post-tax return on equity. In case, the repo rate is above 8%, there will be 14% post tax return on equity.***

120. The Regulation 21 of the TERC Tariff Regulation (Multi Year Tariff) 2015 provides guidelines for Debt-Equity ratio.

“21. Debt-Equity Ratio:

- I. *For a project declared under commercial operation on or after the date of publication of this regulation on the Official Gazette, the debt-equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*

Provided that:

- i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff;
- ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;
- iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.”

121. As per the TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023, return on equity shall be computed on 30% of the capital base or actual equity, whichever is lower, same is considered here for the purpose of calculation of RoE. Equity fund of TSECL is calculated after allocating equity fund of TSECL in the Gross fixed assets ratio among generation, transmission and distribution business.

122. The return on equity has been computed on projected paid up capital is summarized in the table given below:

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Table 47: Calculation of Equity Fund and Return on Equity in Rs. Crores for FY 22-23 to 25-26

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Sep'24)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Equity Base for Distribution	351.67	321.83	337.56	337.56	337.56
Average GFA for distribution	827.87	812.26	905.37	1106.27	1567.70
Normative Equity (30% of GFA)	248.36	243.68	271.61	331.88	470.31
Equity considered for RoE (Min of actual and normative)	248.36	243.68	271.61	331.88	470.31

Table 48: Actual Return on Equity and Tax on Return on Equity in Rs. Crores for FY 22-23 to 25-26

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Equity considered for RoE	248.36	243.68	331.88	470.31
Rate of RoE	15.50%	11.00%	11.00%	11.00%
Return on Equity without Tax	38.50	26.80	36.51	51.73
Actual Tax paid	0.00	0.00	0.00	0.00
Return on Equity Total	38.50	26.80	36.51	51.73

123. The TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 does not mention about the methodology for computation of Rate of pre-tax return on equity. However, Regulation 27 of TERC Tariff Regulation (Multi Year Tariff) 2015 provides for grossing up of base rate of return on equity with the effective tax rate of the respective financial year and the effective tax rate is to be computed as per the following formula.

$$\text{“Rate of pre-tax return on equity} = \text{Base rate} / (1-t)$$

Where “t” is the effective tax rate in accordance with Clause (I) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission/distribution business, as the case may be, and the corresponding tax thereon. In case of generating company or the Transmission or the Distribution licensee paying Minimum Alternate Tax (MAT), “t” shall be considered as MAT rate including surcharge and cess.”

124. The Petitioner has not considered Minimum Alternative Tax (MAT Rate) for calculation of pre-tax RoE as shown above. The RoE has been calculated based on the rate of RoE mentioned above against Equity considered for the calculation of this Return on Equity (RoE). There is no tax paid in the years FY23-24 and FY 24-25 (Sep’24) as per audited accounts hence the same hasn’t been considered in the above RoE calculation.

6.12. Non-tariff Income

125. The Regulation 29 of the TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 provides direction for treatment of Non-Tariff Income. The relevant extract of the regulation is as under:

“29. Non-Tariff Income:

- I. All incomes being incidental to electricity business and derived by the Licensee from sources, including but not limited to profit derived from disposal of assets, income from rent of land and buildings, delayed payment surcharge, meter rent (if any), income from investments other than contingency reserves, interest income on advance to suppliers and contractors income from rent from staff quarters, income from rent from contractors income from hire charges from contactors and others, supervision charges for capital works, income from consumer charges levied in accordance with Schedule of Charges approved by the Commission, income from recovery against theft and/or pilferage of electricity, income from advertisements income from sale of tender documents, miscellaneous receipts from the consumers and income to Licensed business from the Other Business of the Distribution Licensee shall constitute Non-Tariff Income of the Licensee*
- II. Interest on security deposits, in excess of the rate specified by the Commission shall be considered as non-tariff income of the Licensees*
- III. The amount received by the Licensee on account of Non-Tariff Income shall be deducted from the aggregate revenue requirement in calculating the net revenue requirement of such Licensee.”*

126. The Regulation 30 of the TERC Tariff Regulation (Multi Year Distribution and Retail Supply Tariff), 2023 provides direction for treatment of Income from Other Business. The relevant extract of the regulation is as under:

“30. Income from Other Business:

- I. Where the Licensee is engaged in any other business, the income from such business will be deducted from the Aggregate Revenue Requirement in calculating the revenue requirement of the Licensee in the manner and in proposition as may be specified by the Commission.

Provided that the Licensee shall follow a reasonable basis for allocation of all joint and common costs between the Distribution Business and the Other Business and shall submit the Allocation Statement as approved by the Board of Directors to the Commission along with its application for determination of tariff;

- II. Provided further that where the sum total of the direct and indirect costs of such Other Business exceed the revenues from such Other Business or for any other reason, no amount shall be allowed to be added to the aggregate revenue requirements of the Licensee on account of such other Business.”

127. The other income of TSECL mainly covers the following:

- Income earned on the subsidy paid by State Government of Tripura (GoT) against the commitment of State Government for reduction in retail supply tariff,
- Interest earned on fixed deposits made in various banks and as detailed under the head of ‘Investments’, and
- Other Miscellaneous Income like sale of scrap, sale of tender, meter rent etc.
- The Revenue Subsidy from Govt. of Tripura has been considered at Rs 60.00 Cr as the budgeted subsidy allotted to TSECL from Govt. of Tripura. Actual if any is disbursed by the Government then the same would be considered at the time of truing-up of that year.

Distribution Business

Table 49: Non-Tariff Income for Distribution Business in Rs Crores for FY 22-23 to 24-25

Particulars	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Other Income	46.89	33.43	33.43	33.43
Revenue subsidy from GoT	58.00	69.81	60.00	60.00
Total Other Income	104.89	103.24	93.43	93.43

6.13. Aggregate Revenue Requirement

128. Based on the details of expenditure and non- tariff income discussed above, the aggregate revenue requirement of FY 24-25 to FY 25-26 is calculated.

Distribution Business

Table 50: Aggregate Revenue Requirement (ARR) for Distribution Business for FY 22-23 to FY 25-26

Particulars	Units	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
Power purchase cost	Rs. Crore	1282.39	1383.53	1423.53	1618.45
Own Generation Cost	Rs. Crore	418.23	385.22	196.72	458.49
Intra State Transmission Cost	Rs. Crore	50.95	61.99	66.13	70.09

Particulars	Units	FY 2022-23 (Actual)	FY 2023-24 (Actual)	FY 2024-25 (Estimated)	FY 2025-26 (Projected)
O&M expense	Rs. Crore	212.15	243.50	248.75	258.02
Depreciation	Rs. Crore	9.44	11.52	15.68	22.23
Interest on working capital	Rs. Crore	25.13	28.45	29.47	35.28
Interest and finance charges	Rs. Crore	7.76	13.17	21.17	26.17
Reasonable Return with Tax	Rs. Crore	38.50	26.80	36.51	51.73
Aggregate Revenue Requirement (ARR)	Rs. Crore	2044.55	2154.17	2037.96	2540.46
Less: Other income	Rs. Crore	46.89	33.43	33.43	33.43
Less: Reduction in Power Purchase on account of higher T&D Loss	Rs. Crore	0.00	0.00	0.00	0.00
Net Aggregate Revenue Requirement	Rs. Crore	1997.66	2120.74	2004.53	2507.03
Revenue from inter- state sale of Power	Rs. Crore	917.26	871.21	727.87	1007.13
Revenue from intra state sale of power	Rs. Crore	693.33	800.43	882.30	1001.85
Revenue subsidy from Government Grant	Rs. Crore	58.00	69.81	60.00	60.00
Revenue Gap/(Surplus)	Rs. Crore	329.07	379.29	334.36	438.05
Gap already approved in Past tariff order in FY 23-24 and FY 24-25	Rs. Crore	-	(121.15)	(175.04)	
Total Gap till FY 2025-26	Rs. Crore	-	500.49	509.40	438.05

Fees for filing tariff Petition has been considered under A&G expense

7. Revenue from Operations for FY 2023-24 to FY 2025-26

Revenue from sale of power within the state

129. The detailed break-up of the actual revenue for various categories of consumers for FY 2022-23 and FY 2023-24 has been provided below as actuals. The projected sales as per the Energy Balance table are multiplied by the average tariff of FY 2024-25, which is increased by 3.57% for FY 2024-25 and 7.15% for FY 2025-26, to account for the tariff hike of 7.15% as notified by the Commission in their last tariff order (in August'24) for estimating the revenue in energy sales for these two fiscal years. The detailed category wise revenue and energy sales from FY 22-23 to FY 25-26 (projected) is given below:

Revenue at existing tariff

Table 51: Category wise Revenue at existing tariff (Rs. Crores) for FY 22-23 to FY 25-26

Category	Billing 22-23		Billing 23-24		Billing 24-25		Billing 25-26	
	Energy	Amount	Energy	Amount	Energy	Amount	Energy	Amount
Domestic	630.83	359.74	648.56	367.10	676.65	398.72	705.96	445.73
Public lighting	11.59	8.29	14.98	9.67	14.98	10.07	14.98	10.79
Commercial	73.13	57.07	79.38	64.95	79.38	67.62	79.38	72.45
Irrigation & Water	55.21	34.87	60.02	33.59	69.90	40.72	81.40	50.81
Public water works	118.86	75.80	149.96	85.35	162.70	96.40	176.53	112.07
Industries	50.75	39.05	50.56	41.37	53.18	45.30	55.94	51.06
MOBILE TOWER	59.56	46.67	67.08	55.57	72.79	62.77	78.97	72.98
Bulk supply	137.26	114.13	153.28	133.83	166.31	151.17	180.44	175.74
Tea Garden	3.40	2.81	3.17	3.96	3.31	4.30	3.31	4.61
Kutirjyoti	9.67	6.33	8.62	5.03	8.62	5.24	8.62	5.61
TOTAL	1150.27	744.76	1235.62	800.43	1307.83	882.30	1385.55	1001.85

Revenue from sale of power outside the state

7.1. Income from Sale of Power

130. TSECL supplies power both within the state to the consumers of Tripura at the retail supply tariff notified by TERC as well as to other states based on bilateral contracts or surplus availability from time to time. The power within Tripura is completely met (except during peak period) before supplying the surplus power to other states.

131. In this context, it is important to note that under inter state sales, TSECL has a fixed quantum of PPA with Bangladesh, Mizoram and Manipur and balance surplus power, if any, is sold in power market like IEX or other

trading platforms/mechanism. Based on this, the expected quantum of sales to the fixed inter state customers is shown below:

Table 52: Quantum of Inter-State Sale of Power by TSECL

Particulars of Inter State Sales	Bangladesh	Manipur	Mizoram
Total Quantum of Power to be Sold (MW)	190 MW (But presently around 100 MW is being supplied due to the current economic and political situation)	10.5 MW	10.5 MW
Annual Units Sold as per PPA by TSECL under inter-state sales (MUs) (at actual in FY 23-24)	712.45 MUs	0 MUs (surrendered/de allocated)	40.617 MUs
Average tariff as per PPA for FY 23-24 and FY 24-25 (INR/kWh)	INR 6.5104/kWh – 3rd year INR 6.6356/kWh – 4 th year	INR 4.46/kWh	INR 4.46/kWh
Estimated fixed annual revenue from inter-state sales based on PPA (INR crores) in FY 24-25 & FY 25-26	INR 473.06 Crores (FY 24-25) INR 480.61 Crores (FY 25-26)	INR 0 crores	INR 0.3476 crores (FY 24-25) INR 18.115 crores (FY 25-26)

132. It may be mentioned that the quantum of inter-state sale of power to Bangladesh has been estimated low in FY 24-25 due to delay in payment observed in the current year where payment from sale of power has been stopped from July '24 onwards due ongoing political unrest, economic situation and geo-political tension in the country which has affected inter-state sale of power to the country. For FY 25-26, it has been estimated the same quantum of sales as in FY 24-25 amid uncertainties over the unrest in the country.

133. The sale of power to Mizoram has been affected due to low generation from Baramura plant which has lowered the quantum of sales to Mizoram. As the Baramura plant is not functioning in the current year hence the sale of power to Mizoram has not been projected compared to previous years and has been estimated based on the current six months value. The same has been projected for FY 25-26 where it is expected that the quantum of sales would be similar to that of FY 23-24. TSECL has PPA with the above-mentioned utilities and the rates as well as quantum of power to be supplied is fixed and as such the revenue from such PPA (Copies of PPA have been provided earlier as part of the review petition on tariff order dated 23rd Sept 2023) is also fixed

as shown above. In case, TSECL has surplus power beyond supplying to the above-mentioned utilities, it sells the surplus power in open markets like IEX, DSM or other sources where the average rate of per unit revenue obtained is much less.

134. The monthly data for 2024 from (iexindia.com/marketdata/areaprice.aspx) is averaged to obtain the per unit rate of IEX that is used for calculation of revenue for FY 24-25 and FY 25-26. As per this data, the average price of power sold to IEX as per latest Area price of FY 24-25 data is around 5.02/kWh. The overall rate of selling power per unit is projected to be at Rs 5.02/kWh in FY 24-25 and kept the same as Rs 5.02/kWh in FY 25-26 respectively.

7.2. Revenue from Inter State Sales for FY 23-24 to FY 25-26

135. The detailed breakup of source wise interstate sales and revenue is given in the below table:

Table 53: Breakup of source-wise interstate sale of power and revenue by TSECL from FY 23-24 to FY 25-26

Parameter	FY 2023-24 (Actual)			FY 2024-25 (Estimated)			FY 2025-26 (Projected)		
	Sales (MU)	Revenue (Rs)	Rs/kWh	Sales (MU)	Revenue (Rs)	Rs/kWh	Sales (MU)	Revenue (Rs)	Rs/kWh
UI	43.703	14.013	3.21	43.70	14.013	3.21	43.70	14.013	3.30
Sale to Mizoram	40.617	38.417	4.46	0.78	0.347	4.46	40.62	18.115	4.59
Sale to Manipur	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00
IEX	206.635	103.729	5.02	478.98	240.446	5.02	982.86	493.388	5.02
Bangladesh Sale	1073.238	699.795	6.52	712.45	473.064	6.64	712.45	481.614	6.76
Total Interstate sales	1364.193	855.954	6.27	1235.912	727.871	5.89	1779.627	1007.130	5.66

136. The total calculation for revenue from interstate sales is shown below:

Table 54: Revenue from Sale of Power outside the State for period FY 23-24 to FY 25-26

Particulars	FY 2023-24 (Actual)			FY 2024-25 (Sep'24)			FY 2024-25 (Estimated)			FY 2025-26 (Projected)		
	Sales (MU)	Revenue (INR crores)	Rs/kWh	Sales (MU)	Revenue (INR crores)	Rs/kWh	Sales (MU)	Revenue (INR crores)	Rs/kWh	Sales (MU)	Revenue (INR crores)	Rs/kWh
Intra-State sale of power	1235.62	800.43	6.48	706.20	470.53	6.66	1307.83	882.30	6.75	1385.55	1001.85	7.23

Particulars	FY 2023-24 (Actual)			FY 2024-25 (Sep'24)			FY 2024-25 (Estimated)			FY 2025-26 (Projected)		
	Sales (MU)	Revenue (INR crores)	Rs/ kWh	Sales (MU)	Revenue (INR crores)	Rs/ kWh	Sales (MU)	Revenue (INR crores)	Rs/ kWh	Sales (MU)	Revenue (INR crores)	Rs/ kWh
Total Inter-State Sales	1364.19	871.21	6.39	423.247	265.64	6.28	1235.91	727.87	5.89	1779.63	1007.13	5.66
Total Sale of Power by TSECL	2599.81	1671.64	6.43	1129.45	736.16	6.52	2543.74	1610.17	6.33	3165.18	2008.98	6.35

137. The treatment of the revenue gap / (surplus) has been discussed subsequently in this Petition.

8. *Tariff Design and Proposed Rate Schedule*

8.1. *New Provisions in Tariff Schedule*

Tariff for Promoting Industrial Consumption

138. In order to promote industrial development and utilize the economic potential of the state, the State Government is planning various measures to promote industrial growth. In line with this, TSECL is also proposing various tariff incentives to industrial consumers. In the previous petition as well TSECL had proposed various incentives and tariff structures to the Commission based on which the Commission had increased the tariff at a hike of around 7.15% and rationalized tariff hike across all categories, however the other various provisions as submitted regarding rebates and tariff provisions were not allowed. In this petition we are hereby providing those again and request to the Commission to approve those as given below:

Load Factor Rebate

139. This rebate shall be provided to the high load industries having contract demand > 500 kW. If such consumers achieve load factor of more than 75%, then a rebate of 5% shall be provided on the total bill. If the load factor is more than 85%, then a rebate of 10% shall be provided on the total bill.

Power Factor Rebate and Penalty

140. At present, all the consumer categories are charged based on the electricity consumption in kWh and as such there is no incentive for improvement in power factor. Most of the other states in India have an incentive-penalty provision in tariff for the big consumers like the industrial consumers to keep the power factor within the acceptable limits and reduce the losses in the system. Based on the similar provisions prevalent in other states, TSECL proposes to introduce the following power factor rebate and penalty provision for Industrial Category consumers (above 20 HP) initially. The same shall be presently applicable only for all industrial category consumers but may be extended for other categories in future.

(a) Power Factor Rebate:

- I. In case, the average PF (leading or lagging) maintained by the consumer is more than 0.85 and upto 0.95, a rebate of 1% on the Energy Charges on unit consumption shall be applicable;
- II. For PF (leading or lagging) of 0.95 and above upto 0.97, a rebate of 2% on the Energy Charges on unit consumption shall be applicable;
- III. For PF (leading or lagging) of 0.97 and above upto Unity PF, a rebate of 3% on the Energy Charges on unit consumption shall be applicable.

(b) Power Factor Penalty:

- I. In case average PF (leading or lagging) in a month for a consumer who falls below 0.85, a penalty @1% for every 1% fall in PF (leading or lagging) from 0.85 to 0.60; plus 2% for every 1% fall below 0.60 to 0.30 upto and including 0.30 shall be levied on total unit consumption.

Separate Tariff Category for IT and ITES consumers (Industries)

141. The State Government is taking various steps to promote IT industries within the state. The State of Tripura is keen to expand along the lines of IT and Electronics industries development which is aligned with the Govt. of Tripura vision for the next 5 years. TSECL is keen to supply electricity at this segment at a discounted tariff compared to Bulk and Industrial category. In line with this, TSECL proposes a separate category to all IT and ITES consumers who shall get an attractive single part tariff of INR 6 per unit. Hence, TSECL again prays before the Commission to consider introducing a separate Tariff Category for IT and ITES consumers (Industries).

Rebate for Greenfield Industries

142. TSECL is re-iterating the fact that a rebate in the tariff structure should be introduced for new Industrial consumers in the state of Tripura or new Greenfield Industries interested in setting up connection in the state. A rebate of Rs 1 per Unit is proposed to be applicable in energy charges for new industrial connection for the total consumption recorded. The rebate shall be allowed initially for a period of 5 years from the date of connection for such new projects for which agreements for availing supply from licensee are finalized during and after the date of issue of tariff order by the Commission. This is applicable for all new industrial connections (> 50 kW or taking supply at 11 kV or above) or green field connection who are setting up new Industries on a newly owned premises. Hence, TSECL again prays before the Commission to kindly introduce a rebate structure of Rs 1 per unit in the tariff of New Greenfield Industries in the state.

Revision in Fixed Charges

143. It has been observed that the fixed charges in Tripura is much less than the fixed charges applicable for most of the states. TSECL in its previous petition had given the state-wise comparison of fixed charges applicable in other states of India. The Commission in its latest tariff order had increased the fixed charges category wise which on an average had an increase of around 35% of fixed charges in the tariff order of FY 2024-25 across all consumer categories. As such, it is requested that beyond, the uniform tariff increase approved by the Commission in this order, the Commission may look at approving additional increase in fixed charges by exactly 100% to bring it to the level of other states in India. A comparison of Fixed charges across various states in India had been submitted previously in the last year's tariff petition. A comparative summary of fixed charges across various consumer categories of TSECL as increased by the Commission in its order dated 14.08.2024 are provided below as:

Consumer category		Fixed Charges before Tariff order dtd 14.08.2024 (Rs/kW or Rs/kVA)	Revised Fixed Charges after Tariff order 14.08.2024 (Rs/kW or Rs/kVA)	Increase in Fixed Charges ((2)-(3))	% increase in Fixed Charge
(1)		(2)	(3)	(4)	(5)
A.	Kutir Jyoti	62	73	11	17.74%
B.	DOMESTIC				
	Dom-Rural (0-50 unit)	25	15	10	66.67%
	Slab 1 - (0 - 50 units)	25	35	10	40.00%
	Slab 2 - (51 - 150 units)	40	55	15	37.50%
	Slab 3 - (151 - 300 units)	50	65	15	30.00%
	Slab 4 - (300 above)	50	65	15	30.00%
	3Ph - compulsory above 4 kw	50	70	20	40.00%
C.	Commercial				
	Small Commercial / pan shop (0-50 units)	25	35	10	40.00%
	Slab 1 - (0 - 150 units)	45	55	10	22.22%
	Slab 2 - (150 above)	60	75	15	25.00%
	Semi Commercial	50	65	15	30.00%
	3Ph - compulsory above 4 kw	50	65	15	30.00%
	3Ph - Group Consumer	50	70	20	40.00%
D.	Mobile Tower, 3Ph, all units	125	140	15	12.00%
E.	Irrigation				
	Irrigation (<5 HP)	30	45	15	50.00%
	Irrigation (>5 HP)	60	80	20	33.33%
F.	Water Works	40	60	20	50.00%
G.	Industries (HT & LT)				
	Upto 5 HP (E-R/S)	25	40	15	60.00%
	Upto 5 HP (E-U/S)	30	45	15	50.00%
	5-20 HP	45	65	20	44.44%
	20-100 HP	60	85	25	41.67%
	Above 100 HP	75	100	25	33.33%
H.	Tea Garden	100	115	15	15.00%
I.	Bulk Supply	75	100	25	33.33%
J.	Public Lighting				
	PL (Panchyat)	30	45	15	50.00%
	PL (NP / Municipality)	60	75	15	25.00%
	Spl Category				
	1) Crematorium, all unit	45	60	15	33.33%
	2) Drainage, Dewatering pump etc. all unit	45	60	15	33.33%

Consumer category		Fixed Charges before Tariff order dtd 14.08.2024 (Rs/kW or Rs/kVA)	Revised Fixed Charges after Tariff order 14.08.2024 (Rs/kW or Rs/kVA)	Increase in Fixed Charges ((2)-(3))	% increase in Fixed Charge
K.	Electric Vehicle Charging Station	45	50	5	11.11%
L	*Non-Domestic/Non-Commercial (New Categories)				
	Upto 4kVA- Single Phase All Units		65		
	Above 4kVA-Three Phase All Units		70		
M	*Railway Traction		140		
	OVERALL				35.34%

*New Categories of consumers coming into effect in FY 2024-25 after Commission directives in its order dated 14.08.2024.

144. It can be observed that the fixed charges increased has an overall increase of around 35% from previous tariff in the latest tariff order issued by the Commission. However, considering the overall impact TSECL could recover only a small portion of its revenue through fixed charges as only 8.34% of the revenue gets impacted on account of fixed charges as per tariff of FY 2024-25. As it is observed from the above data, that even though the fixed charges have been increased still it is very much lower compared to other states. Hence, it is imperative to increase the fixed charges of TSECL for the above category wise consumers by another 100% from the existing fixed charges for all the categories.

TOD Tariff

145. The Ministry of Power in its notification dtd 14.06.2023 had mentioned that the Time of Day (TOD) Tariff for Industrial and Commercial consumers having maximum demand more than 10 kW shall be made effective from a date not later than 1st April, 2024 and for other consumers except agricultural consumers, the Time of Day tariff shall be made effective not later than 1st April, 2025 and a TOD tariff shall be made effective immediately after installation of smart meters, for the consumers with smart meters. It also notified that the Time of Day (TOD) Tariff as specified by the State Commission for Commercial and Industrial consumers during peak period of the day shall not be less than 1.20 times the normal tariff and for other consumers, it shall not be less than 1.10 times the normal tariff.

146. The Commission in its order dated 14.08.2024 had introduced TOD Tariff for Industrial, Tea/Coffee/Rubber Gardens, Bulk Supply, Water Works, Irrigation and Railway Traction categories. The Commission had introduced TOD Tariff where it stated that the TOD Tariff for Peak period would be applicable at 140% of the Normal Rate and for Off-Peak period it would be 60% of the Normal Rate. This is contrary to the MoP notification as mentioned above.

147. Hence, TSECL is proposing certain changes in the TOD tariff structure as compared to what was issued by the Commission and also prays before the Commission to introduce TOD Tariff facility for Industrial &

Commercial consumers having maximum demand more than 10 KW and for other consumers except Agricultural Consumers the TOD tariff facility shall be made effective immediately after installation of Smart Meter as per the following slabs::

From	To	Period	Energy Charge – Rs/kWh
Industrial and Commercial having connected Load above 10 KW			
5:00 AM	5:00 PM	Normal	Normal Rate
5:00 PM	11:00 PM	Peak	140% of the Normal Rate
11:00 PM	5:00 AM	Off-Peak	80% of the Normal Rate
Other Consumer except Irrigation			
5:00 AM	5:00 PM	Normal	Normal Rate
5:00 PM	11:00 PM	Peak	110% of the Normal Rate
11:00 PM	5:00 AM	Off-Peak	80% of the Normal Rate

148. TSECL would like to pray before the Commission to consider TOD Tariff as per Rule 8A TOD Tariff of Consumer (Amendment) Rules, 2023.

149. Hence, as mentioned above TSECL prays before the Commission to kindly introduce the TOD Tariff facility as per above mentioned table structure for Industrial, Commercial (Above 10 KW Maximum Demand) and other Consumers except Irrigation Consumers as per Notification of Ministry of Power, Govt. of India dated 14/06/2023..

Tariff for Bulk Supply

150. TSECL in its previous tariff petition has proposed to change Bulk Supply level from LT level connection point to HT level connection point in order to reduce transformation loss. At present, the Bulk Supply category has options for supply at LT level with provision of adding transformation loss of 3%. It is once again submitted that the bulk category option in all states is provided for consumers with high load/demand and in such cases, the supply is provided only at HT level. As such, allowing the bulk consumers to get the supply at LT level results in increase of line losses for high value consumers, increasing the operation and maintenance cost for TSECL and uniformity in providing connections to different consumers. Hence, it is requested that the current

provision of allowing bulk consumers to receive supply at LT level be discontinued and all bulk consumers should get supply at HT level.

kVAh billing for Consumers for 10kW and above

151. TSECL in its tariff petition is proposing to introduce 'kVAh based tariffs' which shall be applicable on all consumers having contracted load of 10 kW/13.4 HP and above, under different categories with TOD/Non-TOD Tariff recording meters (as appropriate). TSECL wants to introduce kVAh tariff into their billing system to measure apparent power that is required to supply a customer's load. It's different from traditional invoicing because it includes an incentive or penalty mechanism to encourage consumers to use power efficiently. Consumers who use power efficiently pay less for energy. TSECL as a utility can save money on compensating for voltage improvement and capacitors. The kVAh based tariff system would encourage consumers to generate their own reactive power and maintain a power factor close to unity. Consumers who do so can reduce their electricity bills. Hence, TSECL prays before the Commission to consider introducing kVAh based billing system for consumers having above 10kW load.

152. The rates prescribed in different categories in terms of kW and kWh will be converted into appropriate kVA and kVAh by multiplying Fixed / Demand Charges and Energy Charges by an average power factor of 0.90.

$$\text{Fixed Charges in kVA} = (\text{Fixed Charges in HP} / 0.746) * 0.90$$

$$\text{Fixed Charges in kVA} = (\text{Fixed Charges in kW} * 0.90)$$

$$\text{Energy Charges in kVAh} = (\text{Energy Charges in kWh} * 0.90)$$

153. The converted rates (i.e. Energy charge in Rs./kVAh and Fixed/Demand charges in Rs./kVA) will be rounded up to two decimal places.

154. Further, for converting energy slabs of different categories specified in kWh to kVAh, average power factor of 0.90 will be used as a converting factor for converting each energy slab (specified in kWh) into energy slabs (in kVAh). The converted energy slabs (in kVAh) will be rounded to next higher kVAh.

Note 1: In case of kVAh billing only kVAh reading will be used for billing purpose.

Note 2: If the average power factor of a consumer in a billing cycle is leading and is within the range of 0.95 -1.00, then for tariff application purposes such leading power factor shall be treated as unity. The bills of such consumers shall be prepared on kWh basis. However, if the leading power factor is below 0.95 (lead) then the consumer shall be billed as per the kVAh reading indicated by the meter. However, the aforesaid provision of treating power factor below 0.95 (lead) as the commensurate lagging power factor, for the purposes of billing, shall not be applicable on Railway Traction category and shall be treated as unity. Hence, for Railway Traction, "lagonly" logic of the meter should be used which blocks leading kVArh.

Smart Metering for Consumers above 25kW or more across all categories

155. TSECL in this tariff petition is proposing to introduce Smart Metering (ST) installation for consumers having connected load more than 25 kW across all categories and prays before the Commission to consider mandatory installation of smart meters for consumers having connected load/ contract demand of more than 25 kW.

156. Smart meters can be used for consumers above 25 kW and can help improve energy efficiency, reduce carbon emissions, and provide consumers with more control over their energy usage. The installation Smart meters if made mandatory for consumers having connected load of more than 25 kW can bring out the possible benefits for consumers in the state of Tripura by:

- Improving customer satisfaction: Customers can view and track their daily consumption and total cost of electricity on a real time basis as well as enable the Utility to track real time energy consumption across those consumers.
- Reduction in energy bills: Smart meters can help analyze energy usage patterns and predict peak demand hours.
- Improve operational and financial efficiency: Smart meters can help with demand-side management, time-of-day metering, and peak load management, thus improving the operational efficiency of the discom in their distribution business.
- Reduce manual meter readings: Smart meters automatically transmit data to the utility company's offices, eliminating the need for manual meter readings. Thus, it would enable TSECL as a utility to capture actual energy consumption data and effectively make their billing system more accurate and efficient.

157. Hence, TSECL prays before the Commission to kindly approve the installation of smart meters for consumers having contract demand/ sanctioned load more than 25 kW.

Introducing surcharges for consumption exceeding the contract demand

158. If the maximum load/ demand in any month of any category of consumer having TOD/Non-TOD tariff recording meter exceeds the contracted load/ demand, then such excess load/demand shall be levied equal to 100% of the normal rate apart from the normal fixed/ demand charge as per the maximum demand recorded by the meter. Further, if the consumer is found to have exceeded the contracted load / demand for continuous previous three months, the consumer shall be served a notice of one month advising him to get the contracted load enhanced as per the provisions of the TERC Electricity Supply Code Regulations 2011 and subsequent amendments thereof.

159. However, the consumer shall be charged for excess load for the period when the load is found exceeding the contract demand. The Licensee shall merge the excess load with the previously sanctioned load, and levy additional charges calculated as above, along with additional security. Subsequent action regarding the increase in contracted load, or otherwise shall be taken only after due examination of the consumer's reply to the notice and a written order in this respect by the Licensee.

9. Revenue Gap for the control period

9.1. Revenue gap at existing tariff

160. For calculating the total regulatory asset, TSECL has considered the revenue gap at existing tariff. Further the gap is calculated considering the revenue from retail and bulk sales and the total cost of distribution business for the respective FY 2023-24 to FY 2025-26 including the approved regulatory asset pending for liquidation as per past orders.

161. The following table shows the gap at existing tariff as given below:

Table 55: Revenue Gap at existing tariff for MYT Period

Particulars	Amount in INR crores
Gap proposed under True up of FY 23-24	500.49
Gap proposed under provisional True up of FY 24-25	509.40
Gap proposed under projection of ARR of FY 25-26	438.05
Total Gap till FY 25-26 considering proposed gap in true-gap and approved gap by the Commission	1447.94

162. It can be observed from the above that the revenue at existing tariff would not be sufficient enough to meet the annual revenue requirement of each of the years during control period. Besides, when the revenue gap carried over from previous years is considered, it becomes imperative that there is a need to increase the existing tariff to make it sufficient enough to meet the requirement and recover the pending gap of past years which has accumulated over the past few years. Since this is a high amount calculated and includes gap of a long period of 3 years, TSECL has not proposed the exact tariff hike at this stage since the quantum of approved gap over such a long period cannot be estimated at this stage. However, in order to give an idea of the tariff hike that may be required, TSECL is showing the average time taken to recover the proposed gap in different scenarios of tariff hike. TSECL even prays before the Commission to consider passing of any necessary Regulatory Asset, which could reduce the financial gap arising out of loss of revenue along with tariff hike. The proposed scenario to recover the revenue gap based on different tariff hike scenarios only are mentioned in the table below at present in order to recover from the tariff of FY 2025-26 as:

Table 56: Proposed ARR and various tariff hike scenarios for the MYT period FY 24-25 to 25-26

Particulars	Scenarios	10% average hike	20% average hike	30% average hike
Additional Revenue at Proposed Tariff in FY 25-26		100.18	200.37	300.56
Time Taken for Bridging Regulatory Gap	Years	14.45	7.22	4.82

10. Annexures:

Latest Domestic Gas Price as per PPAC, MoPNG notification dt. 31.10.2024:

No. PPAC/Gas Pricing/November 2024

पेट्रोलियम योजना एवं विश्लेषण प्रकोष्ठ

(पेट्रोलियम एवं प्राकृतिक गैस मंत्रालय, भारत सरकार)

Petroleum Planning & Analysis Cell

(Ministry of Petroleum & Natural Gas, Govt. of India)

Dated: 31.10.2024.

NOTIFICATION

Sub: Domestic Natural Gas Price for the period 1st November 2024 to 30th November 2024.

In accordance with MoPNG's Notification No.L-12015/1/2022-GP-II dated 7th April 2023, the price of Domestic Natural Gas for the period **1st November 2024 to 30th November 2024** is notified as **US\$ 7.53 /MMBTU** on Gross Calorific Value (GCV) basis.

2. Further, in accordance with Para 4 of the said notification, for the gas produced by ONGC/OIL from their nomination fields, the above-mentioned APM price shall be subject to a ceiling of **US\$ 6.50/MMBTU** on GCV basis for the same period.


(P. Manoj Kumar)
Director General

To

DG, Directorate General of Hydrocarbons
Chairman & Managing Director, ONGC
Chairman & Managing Director, OIL

Copy also to: - Chairman & Managing Director, GAIL
CC to:

- i. PS to Hon'ble Minister of Petroleum & Natural Gas
- ii. Secretary, Ministry of Petroleum & Natural Gas
- iii. Additional Secretary, Ministry of Petroleum & Natural Gas
- iv. Joint Secretary (Exploration), Ministry of Petroleum & Natural Gas
- v. Joint Secretary (GP), Ministry of Petroleum & Natural Gas

Tripura Power Transmission Limited (TPTL) incorporation notification:

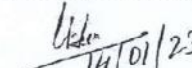
Government of Tripura
Department of Power
Agartala, Tripura

F. No. 1(1)/Power/TPTL/2023/Vol.-1/519 Dated, 14th January, 2023

NOTIFICATION

The Governor of Tripura, in exercise of powers conferred by Sections 131 and 133 of the Electricity Act, 2003 and all other enabling powers in this respect, is pleased to form the Tripura Power Transmission Limited (TPTL), a wholly owned subsidiary of Tripura State Electricity Corporation Limited (TSECL), as a State Transmission Utility with effect from the date of issuing of this notification.

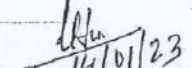
The broad objective of the Tripura Power Transmission Limited (TPTL), after its incorporation under the Companies Act, 2013, will be to take over, acquire and manage the existing Intra-State transmission and sub-transmission systems upto 33 KV level of Tripura State Electricity Corporation Limited (TSECL) as may be transferred in pursuance of "The Tripura State Electricity Reforms Transfer Scheme (Provisional) 2023" as notified by the Tripura State Electricity Corporation Limited (TSECL) under laws, rules and regulations.

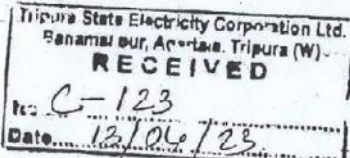
By order of the Governor,

(Udayan Sinha)
Additional Secretary
to the Government of Tripura



Copy to:

1. Secretary to the Governor of Tripura, Raj Bhavan, Agartala.
2. Principal Secretary to the Chief Minister, Tripura, Agartala.
3. Offices of all Ministers, Tripura, Agartala.
4. Secretary, Ministry of Power, Shram Shakti Bhawan, Rafi Marg, New Delhi-1.
5. All Principal Secretaries/Secretaries/Special Secretaries, Tripura, Agartala.
6. PPS to the Chief Secretary, Tripura, Agartala.
7. Accountant General (A&E)/ (Audit, Report Section), Tripura, Agartala.
8. Finance/GA(SA)/GA(C&C)/GA(AR)/Power Department, Tripura, Agartala.
9. Managing Director, TSECL, Tripura, Agartala.
10. Confidential Section, O/o the Chief Secretary, Tripura, Agartala.
11. Director, IT, Indranagar, Tripura, Agartala with a request to upload the same in the State portal.
12. Manager Government Press, Tripura, Agartala for publication.


(Udayan Sinha)
Additional Secretary
to the Government of Tripura


No. C-123
Date 13/01/23

17,811
20.04.23



GOVERNMENT OF INDIA
MINISTRY OF CORPORATE AFFAIRS
 Central Registration Centre

Certificate of Incorporation

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]

I hereby certify that **TRIPURA POWER TRANSMISSION LIMITED** is incorporated on this Nineteenth day of January Two thousand twenty-three under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is **U40106TR2023SGC014182**.

The Permanent Account Number (PAN) of the company is **AAJCT9388E** *

The Tax Deduction and Collection Account Number (TAN) of the company is **SHLT03256B** *

Given under my hand at Manesar this Nineteenth day of January Two thousand twenty-three .

DE MINISTRY OF
CORPORATE AFFAIRS

Digital Signature Certificate
Ms. Susmithaa Selvaraj

For and on behalf of the Jurisdictional Registrar of Companies
Registrar of Companies
Central Registration Centre

Disclaimer: This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary wherever required. Registration status and other details of the company can be verified on www.mca.gov.in

Mailing Address as per record available in Registrar of Companies office:

TRIPURA POWER TRANSMISSION LIMITED
 79, Tilla, Agartala, West Tripura, Tripura, India, 799006



* as issued by the Income Tax Department

Outage Data of Rokhia for FY 2023-24:*Table 57: Outage Data of Rokhia for FY 2023-24*

Sr. No.	Outage Period	Unit No.	Outage hours	Reason for outage
1	6.00hrs. of 02-04-23 to 11.48hrs. of 02-04-23	U#7	5.48	Manually shut down for maintenance purpose i.e. To clean Combustion chamber oil & Starting Engine compartment oil and to check PMG bush & bolt.
2	18.32hrs. of 21-04-23 to 7.23hrs. of 22-04-23	U#7	12.91	Compressor bleed valve POS trouble Trip, Low Lube oil Pressure, Gen. Lockout relay optd, Unit lockout relay optd.
3	18.40hrs. of 27-04-23 to 8.19hrs. of 28-04-23	U#7	14.19	E/F in 132KV Transformer panel, Gene. Over voltage relay optd.
4	18.06hrs. of 14-05-23 to 12.16hrs. of 15-05-23	U#7	18.10	Turbine Underspeed.
5	6.01hrs. of 18-05-23 to 12.37hrs. of 18-05-23	U#7	6.36	Gen. Lockout relay Optd, Reverse power relay Optd.
6	13.09hrs. of 23-05-23 to 15.10hrs. of 23-05-23	U#7	2.01	Turbine Underspeed and at the time of Monarchak feeder tripped.
7	18.04hrs. of 23-05-23 to 19.10hrs. of 23-05-23	U#7	1.06	Turbine underspeed during decreasing load of 5MW as per SLDC.
8	19.46hrs. of 23-05-23 to 13.25hrs. of 24-05-23	U#7	18.19	After FSNL, tripped due to turbine underspeed.
9	5.56hrs. of 09-06-23 to 13.48hrs. of 09-06-23	U#7	8:32	Turbine Underspeed.
10	12.53hrs. of 29-06-23 to 14.02hrs. of 29-06-23	U#7	1:49	Turbine Underspeed.
11	23.30hrs. of 07-08-23 to 12.42hrs. of 08-08-23	U#7	13.12	Turbine underspeed
12	8.28hrs. of 10-08-23 to 12.42hrs. of 10-08-23	U#7	4.14	Turbine underspeed
13	22.21hrs. of 10-08-23 to 11.45hrs. of 17-08-23	U#7	133.24	Manually tripped for maintenance purpose
14	10.57hrs. of 29-08-23 to 16.46hrs. of 30-08-23	U#7	30.29	Tripped due to high Lube oil header temperature as malfunctioning of the cooling water pump.
15	12.05hrs. of 07-09-23 to 18.58hrs. of 07-09-23	U#7	6.53	As L.O. Header temperature and Drain temperature raise abnormally due to Cooling Water Pump 1 failed to run(C.W.P 2 faulty) So, had to stop the machine.
16	13.14hrs. of 17-09-23 to 16.11hrs. of 17-09-23	U#7	3.37	As L.O. Header temperature and Drain temperature raise abnormally due to Cooling Water Pump 1 failed to run(C.W.P 2 faulty) So, had to stop the machine.
17	18.42hrs. of 30-09-23 to 12.46hrs. of 02-10-23	U#7	42.04	AS CPW motor of U#7 not functioning properly, and leakage of water has increased at the pump and also abnormal sound increased in the pump motor. So, had to stopped machine for maintenance of CWP motor.
18	5.50hrs. of 06-10-23 to 19.50hrs. of 06-10-23	U#7	14	Bound to stop the machine as CPW motor of U#7 failed to operate.
19	13.10hrs. of 28-02-24 to 14.45hrs. of 29-02-24	U#7	25.35	Manually shutdown as GT U#8 started and taken into circuit as three Unit cannot run together due to lack of Gas supply from ONGC & GAIL.

Sr. No.	Outage Period	Unit No.	Outage hours	Reason for outage
20	15.30hrs. of 02-03-24 to 17.05hrs. of 02-03-24	U#7	2.15	Tripped due to excessive combustion trouble.
21	9.42hrs. of 31-03-24 to 11.22hrs. of 31-03-24	U#7	1.20	Tripped due to low lube oil pressure
22	13.08hrs. of 31-03-24 to 14.12hrs. of 31-03-24	U#7	1.04	Tripped due to low lube oil pressure/Turbine underspeed
23	15.19hrs. of 28-12-23 to 13.44hrs. Of 08-01-2024	U#8	262.25	As per discussion with higher authority the Unit Forcefully taken shutdown due to non-availability of Gas .
24	19.41hrs. of 08-01-24 to 20.38hrs. of 08-01-24	U#8	1.37	Tripped due to gas control valve servo trouble, SRV and GCV problem.
25	5.10hrs. of 09-01-24 to 19.46hrs. of 15-01-24	U#8	158.36	Tripped due to gas control valve servo trouble, SRV and GCV problem.
26	16.13hrs. of 18-01-24 to 13.46hrs. of 19-01-24	U#8	21.33	Stopped manually due to lack of Gas supply from ONGC and Gail as U#7 and U#9 in circuit.
27	12.18hrs. of 20-01-24 to 11.59hrs. Of 28-02-24	U#8	1439.41	Stopped manually due to lack of Gas supply from ONGC and Gail as U#7 and U#9 in circuit.
28	17.25hrs. of 27-03-24 to 15.45hrs. of 28-03-24	U#8	22.20	Manually stopped due to oil leakage in 2nd bearing side.
29	16.20hrs. of 28-03-24 to 17.10hrs. of 28-03-24	U#8	0.50	Tripped during synchronize
30	0.32hrs. of 13-04-23 to 17.58hrs. of 13-04-23	U#9	17.26	Manually shut down for maintenance purpose i.e. To clean Combustion chamber oil & Starting Engine compartment oil, to change vertical & horizontal dresser coupling both sides collars and gaskets.
31	13.41hrs. of 16-04-23 to 16.14hrs. of 16-04-23	U#9	3.13	Under Freq. Optd relay.
32	17.41hrs. of 10-05-23 to 12.10hrs. of 11-05-23	U#9	19.09	Over Temperature Trip, HP control speed signal loss
33	8.14hrs. of 05-06-23 to 18.02hrs. of 11-06-23	U#9	154.28	GCV not following reference trip/High Vibration trip.
34	8.28hrs. of 02-07-23 to 19.55hrs. of 02-07-23	U#9	11.27	Due to E/F-II on 132KV Transformer panel.
35	11.05hrs. of 28-11-23 to 15.58hrs. of 28-11-23	U#9	4.53	Manually tripped for emergency maintenance purpose.
36	23.47hrs. of 07-12-23 to 8.40hrs. of 08-12-23	U#9	9.33	Tripped due to high exhaust pressure and P2 pressure low.
37	18.32hrs. of 15-01-24 to 15.45hrs. of 18-01-24	U#9	54.08	Due to over Temperature trip
38	1.22hrs. of 19-01-24 to 8.40hrs. of 19-01-24	U#9	7.18	Due to HP speed signal loss/PPRO difference trip
39	10.21hrs. of 19-01-24 to 11.00hrs. of 19-01-24	U#9	0.39	Due to PPRO composite trip(s)/Control oil pressure low trip
40	12.04hrs. of 19-01-24 to 12.01hrs. of 20-01-24	U#9	24.37	Due to HP overspeed FLT-CTRL i/p trouble/Due to HP speed signal loss/PPRO difference trip
41	10.27hrs. of 22-01-24 to 11.42hrs. of 22-01-24	U#9	1.15	Due to over Temperature trip
42	10.52hrs. of 27-01-24 to 11.36hrs. of 27-01-24	U#9	1.24	Due to Control oil pressure low trip
43	03.54hrs. of 29-02-24 to 16.32hrs. Of 27-03-24	U#9	637.18	Tripped due to overtemperature trip/HP control speed signal loss.
44	23.17hrs. of 27-03-24 to 15.50hrs. Of 12-04-24(outage mention till 31-03-24)	U#9	73.23	Tripped due to control oil pressure low trip.

Outage Data of Baramura for FY 2023-24:*Table 58: Outage Data of Baramura for FY 2023-24*

Sr. No.	Date	Outage hours	Loss in MU	Reason for outage
1	06.04.23	2.01	0.04235	Tripped due to high exhaust temperature, control speed signal loss, and gas fuel hydraulic trip pressure low. Earth fault and fire incident near 132 KV Chakmaghat line, but breaker did not trip.
2	20.04.23	11.19	0.23765	Tripped due to high exhaust temperature, control speed signal trouble, and gas fuel hydraulic trip pressure low. Dharmanagar to PK Bari 132 KV feeder trip and 132 KV Mohanpur breaker trip.
3	01.05.23	17.17	0.36295	Smoke observed along with heavy oil leakage from dresser coupling at LGB side.
4	08.06.23	2.00	0.04200	Tripped due to Vipro composite trip and GCV not following reference.
5	09.06.23	0.43	0.01505	Tripped due to Vipro composite trip and GCV not following reference.
6	10.06.23	0.20	0.00700	De-synchronized due to generator breaker tripped due to overvoltage and 37.5 MVA transformer tripped due to restricted earth fault. SLDC unable to provide information about the external transmission line fault.
7	14.06.23	0.38	0.01330	Manually de-synchronized due to Unit#5 going to part load (4 MW) and 132 KV Ambassa feeder tripped due to distance relay operated.
8	15.06-16.06.23	9.38	0.20230	Tripped due to lube oil header temperature high. Start attempted twice but failed due to starting problem of diesel engine. Maintenance done by GTMSD, unit started next morning.
9	16.06.23	0.15	0.00525	De-synchronized due to fault at Dharmanagar to PK Bari 132 KV feeder line and 37.5 MVA transformer tripped due to standby earth fault.
10	2.07.23	5.03	0.10605	De-synchronized due to 132 KV main bus/switchyard planned shutdown.
11	03.07.23	0.08	0.00280	De-synchronized due to 37.5 MVA transformer breaker tripped for standby earth fault relay operated.
12	04.07.23	0.19	0.00665	De-synchronized due to 37.5 MVA transformer breaker tripped for standby earth fault relay operated and 132 KV PK Bari to Dharmanagar S/S breaker tripped due to earth fault.
13	22.07.23	0.20	0.00700	De-synchronized due to 37.5 MVA transformer breaker tripped for standby earth fault relay operated.
14	25.07.23	0.55	0.01925	De-synchronized due to 37.5 MVA transformer breaker tripped for earth fault relay operated and 66KV auto transformer tripped due to earth fault.
15	26.07.23	0.20	0.00700	De-synchronized due to 37.5 MVA transformer breaker tripped for standby earth fault relay operated and 132 KV PK Bari to Kamalpur feeder tripped due to earth fault.
16	19.08.23	2.35	0.04725	Tripped due to protective speed signal loss.
17	19.08.23	3.55	0.08225	Tripped due to protective speed signal loss.
18	22.08.23	0.43	0.01505	Tripped due to protective speed signal loss.
19	23.08.23	1.30	0.03150	De-synchronized due to fault at 132kV transmission line and SLDC informed that breaker opened at Jirania and Gamaitilla sub-station.
20	23.08.23	13.53	0.29155	Tripped due to generator differential lockout. Checking the IR value of stator found healthy and replaced the servo valve of SRV & GCV by repaired one. Unit started but unable to synchronize due to generator breaker problem. Maintenance done, unit synchronized.
21	24.08.23	7.27	0.15645	Tripped due to protective speed signal loss.
22	18.09.23	2.37	0.05495	Tripped due to protective speed signal trouble, gas fuel hydraulic trip pressure low.
23	23.09.23	2.13	0.04655	Due to generator protective differential trip and negative phase STG. 132 KV Agt. feeder tripped due to Z1 tripped, RYB phase distance relay tripped.
24	2.10.23	5.37	0.11795	Generator differential trip.
25	9.10.23	15.58	0.32480	Shutdown taken by GTMSD for maintenance.
26	12.10.23	5.37	0.11795	Due to 86U1/86U2/8661/86G2 trip relay operated, AVR PT-4,5,6 core

Sr. No.	Date	Outage hours	Loss in MU	Reason for outage
				1 fuse fail & protective speed signal trouble.
27	18.11-19.11.23	28.24	0.59640	Due to DF/DT STG-1.
28	21.11.23	1.06	0.02310	Due to 86U1/86U2/86G1/86G2 trip relay operated, AVR PT-4,5,6 core 1 fuse fail & protective speed signal trouble.
29	21.11.23	2.15	0.04725	Due to DF/DT STG-1 protection operated, 86U1/86U2/86G1/86G2 trip relay operated, AVR PT-4,5,6 core 1 fuse fail, and protective speed signal trouble.
30	22.11.23	6.50	0.14350	Due to loss of excitation without U/V protection operated, DF/DT STG-1 protection operated, and protective speed signal trouble.
31	07.02.24	2.44	0.05810	nit tripped due to control speed signal lost, HP112HF protective speed signal trouble, protective speed status trip, and gas fuel hydraulic pressure low.
32	09.03.24	1.05	0.02275	Protective speed signal trouble, gas pressure hydraulic pressure low, protective status trip, 86U1/86U2, 86G1/86G2 trip relay operative, AVR PT 4,5,6 core-1, AVR DF/DT STG1 protective relay trip 86U1/86U2.
33	15.03.24	2.33	0.05355	Fire detected, Generative operative trip, protective speed signal trouble, Gas pressure, Hydro pressure low, protective status trip, 86U1/86U2, 86G1/86G2, relay trip, operative AVR, 4,5,6 core-1, fuse fault, AVR, DF/DT STG1 protective relay trip
34	15.03.24	1.20	0.04900	Protective speed signal trouble
35	16.03.24	1.23	0.02905	Vipro composite trip
36	21.03.24	0.45	0.01575	Tripped due to vipro composite trip protective status trip, Gas fuel hydr, Trip pressure low, 86U1/86U2, 86G1/86G2, relay faulty, AVR RT, 4,5,6 Core, 1 fuse fail, 86U1/86U2 Trip relay OPTD
37	21.03.24	0.09	0.00315	Tripped due to vipro composite trip protective status trip, Gas fuel hydr, Trip pressure low, Communicaiton failure in the control system in S-core, Mark-VI.
38	21.03.24	6.03	0.12705	Starting Diesel engine problem (Due to heavy smoke)
39	22.03.24	12.39	0.26565	Mtc. Of starting diesel engine problem
40	23.03.24	19.24	0.40740	Control of speed signal lost, protective speed signal trouble, Gas pressure Hydr. Pressure low, Compressor bleed, viv pos trouble trip.
41	24.03.24	22.36	0.47460	Protective speed signal trouble, Gas pressure Hydr. Pressure low
42	25.03.24	23.42	0.49770	Tripped due to Control speed signal lost, protective speed signal trouble, protective status trip, Gas fuel hydr., Trip pressure low, 86U1/86U2 Relay faulty, AVR PT4,5, 6, core 1 fuse fall, 86U1/86U2 Trip relay OPTD.
43	26.03.24	123.43	2.59805	Tripped due to vipro composite trip protective status trip, Gas fuel hydr, Trip pressure low, 86U1/86U2, 86G1/86G2, relay faulty, AVR RT, 4,5,6 Core, 1 fuse fail, 86U1/86U2.

Total Generation loss in MUs = 7.7749 MU in FY 2023-24 for Baramura plant.

Gas price data:*Table 59: Gas price data from FY 2022-23 to FY 2024-25 (Nov'24)*

Period	Gas Price (US\$/MMBtu)	Gas Price ceiling (US\$/MMBtu)
April 2021 – Sept 2021	1.79	3.62
Oct 2021- Mar 2022	2.90	6.13
April 2022 – Sept 2022	6.10	9.92
Oct 2022- Mar 2023	8.57	12.46
April 2023 (1st to 7th)	9.16 & 7.92	6.50
April 2023 (8th to 30th)	7.92	6.50
May 2023	8.27	6.50
June 2023	7.58	6.50
July 2023	7.48	6.5
August 2023	7.85	6.5
September 2023	8.6	6.5
October 2023	9.20	6.5
November 2023	9.12	6.5
December 2023	8.47	6.5
January 2024	7.82	6.5
February 2024	7.85	6.5
March 2024	8.17	6.5
April 2024	8.38	6.5
May 2024	8.9	6.5
June 2024	8.44	6.5
July 2024	8.24	6.5
August 2024	8.51	6.5
September 2024	7.85	6.5
October 2024	7.48	6.5
November 2024	7.53	6.5