



TARIFF ORDER

True-up of the FY 2020-21 and FY 2021-22, Aggregate Revenue Requirement (ARR) and Determination of Generation Tariff for the FY 2023-24

Petition No. 88/2022

for

Puducherry Power Corporation Limited (PPCL)

28th March 2023

JOINT ELECTRICITY REGULATORY COMMISSION

For the State of Goa and Union Territories

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List of Abbreviations

Abbreviation	Full form
Act	Electricity Act, 2003
APC	Auxiliary Power Consumption
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Station
Commission/JERC	Joint Electricity Regulatory Commission for the State of Goa and Union Territories
PED	Electricity Department, Puducherry
FC	Fixed charge
FY	Financial Year
GFA	Gross Fixed Assets
GCV	Gross Calorific Value
MU	Million Unit
MW	Mega Watt
MGO	Minimum Guaranteed Offtake
MYT	Multi-Year Tariff
NAPAF	Normative Annual Plant Availability Factor
O&M	Operation and Maintenance Expenses
PAFM	Plant Availability Factor during the month
PLF	Plant Load Factor
PPA	Power Purchase Agreement
PPCL	Puducherry Power Corporation Limited
RoE	Return on Equity
SHR	Station Heat Rate

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Before the
Joint Electricity Regulatory Commission
For the State of Goa and Union Territories, Gurugram

QUORUM

Smt. Jyoti Prasad, Member (Law)

Petition No. 88/2022

In the matter of

Approval for the True-up of the FY 2020-21, FY 2021-22 and Aggregate Revenue Requirement (ARR) and Determination of Generation Tariff for the FY 2023-24.

And in the matter of

Puducherry Power Corporation Limited (PPCL)Petitioner

ORDER


- 1) This Order is passed in respect to the Petition filed by Puducherry Power Corporation Limited (hereinafter referred to as "PPCL" or "the Petitioner") for Approval for the True-up of the FY 2020-21 and FY 2021-22, Aggregate Revenue Requirement (ARR) and Determination of Generation Tariff for the FY 2023-24 before the Joint Electricity Regulatory Commission (herein after referred to as "The Commission" or "JERC").
- 2) The Commission scrutinised the said Petition and generally found it in order. The Commission admitted the Petition on 26th December 2022. The Commission thereafter requisitioned further information/ clarifications on the data gaps observed to take a prudent view of the said Petition. The Commission also held a Technical Validation Session to determine sufficiency of data and the veracity of the information submitted. Further, suggestions / comments/ views and objections were invited from the Stakeholders and Electricity Consumers. The Public Hearing was held on 24th February 2023, and all the Stakeholders/Electricity Consumers present in the Public Hearing were heard.
- 3) The Commission has not considered true-up of FY 2021-22 as discussed in detail in Chapter 4 of this order.
- 4) The approved generation tariff for FY 2023-24 shall come into force from 1st April 2023 and shall remain valid until further Orders of the Commission.
- 5) All existing provisions that are not modified by this Order shall continue to be in force.
- 6) The Commission approves the following for PPCL Gas Power Station at Karaikal:
 - (a) Annual Fixed Cost (AFC) at INR 36.66 Cr for FY 2023-24.
 - (b) Normative Annual Plant Load Factor (NAPLF) for the purpose of the calculation of Incentive and the formula for computation of energy charge (net) to be billed per month shall be considered as per the prevalent CERC Tariff Regulations.
 - (c) Recovery of a gap of INR 0.43 Cr on account of True-up of FY 2020-21 to Electricity Department, Puducherry (PED) in six equal monthly instalments starting within three months from the date of the Tariff Order.

- (d) In addition to the charges approved above, the Commission also allows recovery of expenses pertaining to regulatory compliance (fees paid to the Commission towards filing of Tariff Petition for FY 2023-24 and related publication expenses) from the beneficiary in twelve equal monthly instalments.
- 7) The attached documents giving detailed reasons, grounds and conditions are an integral part of this Order.
- 8) Ordered accordingly

Sd/-
(Jyoti Prasad)
Member (Law)

Place: Gurugram
Date: 28th March 2023

Certified Copy


(S.D. Sharma)
Secretary (I/c), JERC

1. Chapter 1: Introduction

1.1. About Joint Electricity Regulatory Commission (JERC)

In exercise of powers conferred by the Electricity Act 2003, the Central Government constituted a Joint Electricity Regulatory Commission for all the Union Territories except Delhi to be known as “the Joint Electricity Regulatory Commission for the Union Territories” vide notification no. 23/52/2003-R&R dated 2nd May 2005. Later with the joining of the State of Goa, the Commission came to be known as “Joint Electricity Regulatory Commission for the State of Goa and Union Territories” (hereinafter referred to as “the JERC” or “the Commission”) vide notification no. 23/52/2003-R&R (Vol. II) dated 30th May 2008.

JERC is an autonomous body responsible for regulation of the Power Sector in the State of Goa and the Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu, and Puducherry, consisting of generation, transmission, distribution, trading and use of electricity. Its primary objective includes taking measures conducive to the development of the electricity industry, promoting competition therein, protecting the interests of consumers and ensuring the supply of electricity to all areas.

1.2. About Puducherry Power Corporation Limited (PPCL)

Puducherry Power Corporation Limited (hereafter referred to as ‘PPCL’ or ‘Petitioner’), an undertaking of Government of Puducherry, is a Government company within the meaning of Companies Act, 1956, as amended from time to time. Further, it is a “Generating Company”, as defined under sub-section 28 of section 2 of the Electricity Act, 2003.

PPCL was incorporated on 30th March 1993, with the objective of generating 32.5 MW of Electricity (22.9 MW from gas turbine and 9.6 MW from Steam turbine) at Karaikal which is one of the outlying regions of the Union Territory of Puducherry.

The details of Plant capacity, commercial & operational data etc. are given in the following table:

Table 1: Details of the PPCL Gas Power Station

S.No.	Subject	Particulars
1	Capacity	32.5 MW
	- Gas Turbine	22.9 MW
	- Steam Turbine	9.6 MW
2	Date of Commercial Operation	3 rd January 2000
3	Type of Fuel	Natural gas
4	Type of Cooling System	Induced draft cooling tower
5	Gas Supplier	GAIL (India) Ltd.

The required gas of 1.91 lakhs cubic meter per day is obtained from the gas wells at Narimanam in the Cauvery basin under an agreement with GAIL (India) Ltd.

The gas power station at Karaikal was declared ready for commercial operation on 3rd January 2000 and is supplying power to Electricity Department Puducherry (PED) under a PPA signed with them on 25th February 2002.

The Electricity Department of Puducherry is the sole buyer of the electricity generated by PPCL.

1.3. Regulations Governing Tariff of PPCL

The Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009 on 9th February 2010. PPCL was governed by these Regulations until the end of the 1st Control Period i.e. from 1st April 2016 to 31st March 2019.

The Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi-Year Tariff) Regulations, 2018 on 10th August 2018. These Regulations are applicable for the 2nd MYT Control Period comprising of three financial years from FY 2019-20 to FY 2021-22 to all the generation companies, transmission and distribution licensees in the State of Goa and Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry. PPCL was governed by these Regulations until the end of the Control Period i.e. 31st March 2022.

The Commission notified the Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi-Year Tariff) Regulations, 2021 on 22nd March 2021. These Regulations are applicable for the 3rd MYT Control Period comprising of three financial years from FY 2022-23 to FY 2024-25 to all the generation companies, transmission and distribution licensees in the State of Goa and Union Territories of Andaman & Nicobar Islands, Lakshadweep, Chandigarh, Dadra & Nagar Haveli and Daman & Diu and Puducherry.

1.4. Filing and Admission of the Present Petition

The present Petition was admitted on 26th December 2022 and marked as Petition No. 88/2022. The Commission and the Petitioner subsequently uploaded the Petition on their respective websites.

1.5. Interaction with the Petitioner

A preliminary scrutiny/analysis of the Petition was conducted and certain deficiencies were observed. Accordingly, deficiency notes were issued to the Petitioner. Further, additional information/clarifications were solicited from the Petitioner as and when required. The Commission and the Petitioner also discussed various concerns of the Petition and key data gaps, which included cost of gas, depreciation, O&M expenses, capitalization etc. The Petitioner submitted its response on the issues through various letters/emails.

The Commission conducted a Technical Validation session (TVS) with the Petitioner, during which the discrepancies in the Petition were conveyed and additional information required by the Commission was sought. Subsequently, the Petitioner submitted replies to the issues raised in these sessions and provided documentary evidence to substantiate its claims regarding various submissions. The following table provides the list of interactions with the Petitioner along with the dates:

Table 2: List of interactions with the Petitioner

S. No	Subject	Date
1	Issue of First Deficiency Note	10.02.2023
2	Issue of Second Deficiency Note	06.03.2023
3	Public hearing	24.02.2023
4	Replies received from Petitioner	01.03.2023 & 07.03.2023
5	Technical Validation Session	16.03.2023

1.6. Notice for Public Hearing

Public notices were published by the Petitioner for inviting suggestions/ comments from stakeholders on the Tariff Petition as given below:

Table 3: Details of Public Notices published by the Petitioner

Sl. No.	Date	Name of Newspaper	Language	Place of Circulation
1	11.01.2023	New Indian Express	English	Puducherry, Karaikal, Mahe & Yanam
2		The Hindu	English	Puducherry, Karaikal, Mahe & Yanam
3		The Daily Thanthi	Tamil	Puducherry & Karaikal
4		Dinakaran	Tamil	Puducherry & Karaikal

The Commission also published Public Notices in the leading newspapers as tabled below, giving due intimation to the stakeholders, consumers and the public at large about the Public Hearing conducted by the Commission.

Table 4: Details of Public Notices published by the Commission

Sl. No.	Date	Name of Newspaper	Place of Circulation
1	8.02.2023 and 22.02.2023	The Hindu	Visakhapatnam, Vijayawada
2		New Indian Express	All Tamil Nadu
3		Daily Thanthi	Puducherry
4		Dinakaran	Puducherry

1.7. Public Hearing

The Public Hearing was held on 24th February 2023 at PMSSS Complex, 81, Laporte Street, Puducherry- 605001 to discuss the issues related to the Petition filed by the Petitioner. The list of the Stakeholders is attached as Annexure 1 to this Order. The major issues discussed, the responses of the Petitioner thereon and the views of the Commission, have been summarized in Chapter 2.

2. Chapter 2: Summary of Suggestions/ Comments received, Response from the Petitioner and the Commission's Views

2.1. Regulatory Process

On admitting the Petition, the Commission directed the Petitioner to make copies of the Petition available to the public, upload the Petition on the website and also publish the same in the newspapers in an abridged form in the given format duly inviting suggestions/ comments from the public as per the provisions of the JERC (MYT) Regulations, 2018 and JERC (MYT) Regulations, 2021.

The Public Hearing was held on 24th February 2023 at PMSSS Complex, 81, Laporte Street, Puducherry- 605001 to discuss the issues related on the Petition True-up of the FY 2020-21, FY 2021-22 and Aggregate Revenue Requirement (ARR) and Determination of Generation Tariff for the FY 2023-24. During the Public Hearing, a few of the stakeholders presented their views in person before the Commission. Other participants from the general public, who had not submitted written suggestions/ comments earlier, were also given an equal opportunity to present their views/ suggestions in respect to the Petition

The list of the Stakeholders is attached as **Annexure 1** to this Order.

2.2. Suggestions/ Comments of the Stakeholders, Petitioner's Response and Commission's Views

The Commission is appreciative of the efforts of various stakeholders in providing their suggestions/ comments/ observations to make the Electricity Sector responsive and efficient. The Commission has noted the concerns of all the stakeholders. The Commission while finalizing the Tariff Order has suitably considered relevant observations. The submissions of the stakeholders, Petitioner's response and views of the Commission are summarised below:

2.2.1. Optimisation of Power Purchase Cost

Stakeholders' Comments:

The Electricity Department, Puducherry (PED) has submitted that the power purchase cost has been increased from PPCL due to higher gas prices. Since the price of gas increases naturally PED has to pay the variable charges to PPCL. The stakeholder has suggested that as the consumption of gas in a gas-based plant can be dynamic and need based due to a high ramping rate, PPCL can vary the generation as per the requirement under peak and off-peak hours. Therefore, PPCL can reduce the generation during off-peak hours to the extent there are no penal charges payable to GAIL. Such an approach will help to optimise the power purchase cost.

The stakeholder has further submitted that the Petitioner's generating company is producing power utilizing gas supplied by M/s GAIL and the latest cost of generation has progressively increased to INR 10.78/unit from average cost of INR 4.21/unit during the FY 2021-22. With the aforementioned increase in the cost of generation the Respondent being a deemed Distribution Licensee is facing huge burden and the same need to be passed to the consumers.

The stakeholder has prayed that the Petitioner may be directed to run the plant at the minimum level of PLF so as just to meet the minimum gas charges as committed to M/s GAIL in order to protect the interest of DISCOM consumers or any other appropriate orders/ direction as deemed fit may be passed by the Commission.

Petitioner's Response:

The Petitioner has submitted that increase in cost of generation is due to increase in gas price by Ministry of Petroleum and Natural Gas, Government of India. In April 2022 gas price was increased from 2.9 \$/MMBtu to 6.1 \$/MMBtu. Again, in October'2022 gas price was increased from 6.1 \$/MMBtu to 8.57 \$/MMBtu. PPCL has no say in fixation gas price as it is fixed by MOP&NG, GOI.

The Petitioner has further submitted that in order to avoid the Minimum Guaranteed Offtake (MGO) clause of M/s GAIL, PPCL has to consume 90% of the adjusted Quarterly Nominated quantity on the basis of the daily nominated quantities. In order to comply with the above provision of Gas Sales Agreement, PPCL plant has to be run at 80% PLF(min). Therefore, due to backing down there will be loss in capacity charges, so the same may be allowed to be claimed 85% PLF.

PPCL has been running the plant in base load since inception. Any loss in efficiency due to running the plant on part load may be made good during true up. In spite of running the plant at reduced load so as just to meet the minimum gas charges as committed to M/s GAIL, if GAIL charges MGO bill, the same may be allowed as pass through in tariff.

Commission's View:

The stakeholder may note the submission of the Petitioner. The Commission directs the Petitioner to consume the quantity as required to meet the requirements of the MGO clause and not incur any penal charges. Further, the Petitioner to ensure optimisation of input costs for its stakeholders.

3. Chapter 3: True-up for FY 2020-21

3.1. Regulations

True-up for FY 2020-21 is being carried out as per the provisions of Regulation 11 of the JERC (Generation, Transmission and Distribution Multi-Year Tariff) Regulations, 2018. The said Regulation specifies as under:

“(11) Annual Performance Review, Truing-up and tariff determination during the Control Period

11.1 The Generating Company, Transmission Licensee and Distribution Licensee shall be subject to annual performance review and truing up of expenses and revenue during the Control Period in accordance with these Regulations.

11.2 The Generating Company, Transmission Licensee and Distribution Licensee shall file an application for the annual performance review of the current year, truing up of the previous Year or the Year for which the audited accounts are available and determination of tariff for the ensuing Year on or before 30th November of each Year, in formats specified by the Commission from time to time:

Provided that the Generating Company, Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be specified by the Commission, together with the audited accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges.

11.3 The scope of the annual performance review, truing up and tariff determination shall be a comparison of the performance of the Generating Company, Transmission Licensee or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges and shall comprise of the following:

- a) **True-up:** a comparison of the audited performance of the Applicant for the Financial Year for which the true up is being carried out with the approved forecast for such previous Financial Year, subject to the prudence check;*
- b) **Annual Performance Review:** a comparison of the revised performance targets of the Applicant for the current Financial Year with the approved forecast in the Tariff Order corresponding to the Control Period for the current Financial Year subject to prudence check;*
- c) Tariff determination for the ensuing Year of the Control Period based on the revised forecast of the Aggregate Revenue Requirement for the Year;*
- d) Review of compliance with directives issued by the Commission from time to time;*
- e) Other relevant details, if any.*

11.4 Upon completion of the exercise, the Commission shall attribute any variations or expected variations in performance for variables specified under Regulation 12 below, to factors within the control of the Applicant (controllable factors) or to factors beyond the control of the Applicant (uncontrollable factors):

Provided that any variations or expected variations in performance, for variables other than those specified under Regulation 12 below shall be attributed entirely to controllable factors.

11.5 Upon completion of the exercise, the Commission shall pass an order recording:

- a) Components of approved cost pertaining to the uncontrollable factors, which were not recovered during the previous Year, to be passed through in tariff as per Regulation 13 of these Regulations:*

Provided that, for a Generating Company, the above exercise shall be in accordance with prevalent CERC Tariff Regulations.

b) Approved aggregate gain or loss to the Transmission Licensee or Distribution Licensee on account of controllable factors, and the amount of such gains or such losses that may be shared in accordance with Regulation 14 of these Regulations: Provided that, for a Generating Company, the above exercise shall be in accordance with prevalent CERC Tariff Regulations.

c) Carrying cost shall be allowed for a Generating Company, Transmission Licensee or Distribution Licensee on the amount of revenue gap for the period from the date on which such gap has become due, i.e., from the end of the Year for which true-up has been done, till the end of the Year in which it is addressed, on the basis of actual rate of loan taken by the Licensee to fund the deficit in revenue:

Provided that carrying cost on the amount of revenue gap shall be allowed subject to prudence check and submission of documentary evidence for having incurred the carrying cost in the years prior to the year in which the revenue gap is addressed:

Provided also that if no loan has been taken to fund revenue deficit, the Commission shall allow Carrying Cost on simple interest basis at one (1) Year State Bank of India (SBI) MCLR /any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points;

Provided further that in case of revenue surplus, the Commission shall charge the Licensee a Carrying Cost from the date on which such surplus has become due, i.e., from the end of the Year for which trueup has been done, till the end of the Year in which it is addressed on simple interest basis at one(1) Year State Bank of India (SBI) MCLR / any replacement thereof as notified by RBI for the time being in effect applicable for 1 Year period, as may be, applicable as on 1st April of the relevant Year plus 100 basis points.

d) Revision of estimates and tariff for the ensuing Financial Year.'

The Commission had approved tariff for FY 2020-21 vide its Order dated 18th May 2020. The Commission in its Tariff Order had approved Annual Fixed Cost (AFC) of INR 33.17 Cr for FY 2020-21 based on the capital cost of INR 169.33 Cr.

True-up for FY 2020-21 was not carried out in the Order dated 31st March 2022 since the Petitioner had not submitted audited final accounts for the same. However, the Petitioner has submitted its Audited Annual Accounts for FY 2020-21 along with the instant petition.

As a part of the True-up exercise, the Commission has reviewed the variations between approvals and actuals of income and expenditure for FY 2020-21 (as per the audited accounts submitted by the Petitioner) and has permitted necessary adjustments after due prudence check in cases where variations are for reasonable and justifiable reasons.

As per Regulation 21 of the JERC (MYT) Regulations, 2018 the Capital Cost for a Generating Company shall be determined by the Commission, guided by the relevant provisions of the prevalent CERC Tariff Regulations governing generation of electricity, subject to prudence check. The Commission, for the purpose of the True-up for FY 2020-21, has considered the CERC Tariff Regulations for the FY 2019-24 issued by CERC vide notification no. L-1/236/2018/CERC dated 7th March 2019 (hereinafter referred to as CERC Tariff Regulations 2019).

3.2. Operational Parameters

3.2.1. Normative Annual Plant Availability Factor (NAPAF)

Petitioner's Submission

The Petitioner has considered a Normative Plant Availability Factor (NAPAF) of 85% considering the judgment of the Hon'ble APTEL dated 21st November 2012 in Appeal No. 41/2012.

Commission's Analysis

The Commission in its Order dated 18th May 2020 had approved the NAPAF of 85% as per CERC Tariff Regulations 2019. NAPAF of 85% is also in line with the judgment of the Hon'ble APTEL dated 21st November 2012 in Appeal No. 41/2012. The Commission has therefore retained NAPAF of 85% for FY 2020-21.

The Commission approves NAPAF at 85% for the FY 2020-21.

3.2.2. Auxiliary Power Consumption (APC)

Petitioner's Submission

The Petitioner has mentioned the APC of 5% in its pleading, whereas, the Petitioner has considered an auxiliary power consumption of 5.56% for calculation of tariff for FY 2020-21.

Commission's Analysis

The Commission in its Tariff Order dated 18th May 2020 had approved auxiliary power consumption of 5.00%. In accordance with the same, the Commission has decided to retain the auxiliary power consumption norm at 5.00% of gross generation.

The Commission approves the auxiliary power consumption at 5.00% for the FY 2020-21.

3.2.3. Gross Station Heat Rate (GSHR)

Petitioner's Submission

The Petitioner has considered the Gross Station Heat Rate (GSHR) of 2646 kcal/kWh for FY 2020-21 as per the Commission's Order dated 18th May 2020.

Commission's Analysis

The Commission had approved GSHR of 2646 kcal/kWh in its Tariff Order dated 18th May 2020. The Commission decides to retain the station heat rate of 2646 kcal/kWh. This was based on analysis done by the Commission in the earlier Tariff Order, dated 25th April 2014, after detailed analysis of historical data of the heat rate for 12 years and the CERC Order dated 07th June 2012 on NEEPCO's Petition for revising the GSHR of Assam and Agartala gas power projects (analogous to the PPCL plant). The Commission had also gone through the 'performance guarantee report' of the PPCL gas power station for the guaranteed heat rate of 2,291 kcal/kWh (based on the NCV of the gas). The gross design heat rate for net station design heat rate of 2,291 kcal/kWh works out to 2,520 (2,291*1.1) kcal/kWh, considering a conversion factor of 1.1, i.e. GCV = 110% of NCV. Further, applying the degradation factor of 5% as per the CERC Tariff Regulations, 2019, the normative GSHR comes to 2,520 * 1.05 = 2,646 kcal/kWh.

The Commission approves the GSHR for the PPCL gas station at 2,646 kcal/kWh for the FY 2020-21.

3.3. Annual Fixed Cost (AFC) for True-up of FY 2020-21

The following components were considered in the Commission's Order dated 18th May 2020 as part of the fixed charge for FY 2020-21:

1. Depreciation
2. Interest on Loan
3. Return on Equity
4. O&M Expenses
5. Interest on Working Capital

The components of the fixed charge mentioned above are discussed in the following paragraphs. The Commission has arrived at the revised Annual Fixed Cost (AFC) for the year and accordingly approved the differential charge to be claimed/ refunded by PPCL as part of the True-up exercise for FY 2020-21.

3.3.1. Capital Cost for FY 2020-21

Petitioner's Submission

The Petitioner has considered the Capital Cost of INR 164.44 Cr as on 1st April 2020.

The Petitioner has claimed NIL additional capitalisation in the instant petition as against NIL approved as per Tariff Order dated 18th May 2020.

Commission's Analysis

The Commission in the Tariff Order dated 31st March 2022, approved a closing capital cost of INR 164.44 Cr for FY 2019-20 after Truing-up. The Commission considered the same as opening capital cost for FY 2020-21. The Commission considered the nil additional capitalisation for FY 2020-21 as submitted by the Petitioner.

Accordingly, the Commission approves INR 164.44 Cr as the opening capital cost and nil as additional capitalization for the FY 2020-21.

3.3.2. Depreciation

Petitioner's Submission

The depreciation has been computed on the closing capital cost of INR 164.44 Cr which includes the Opening Capital Cost as INR 164.44 Cr and NIL additional capitalisation. The Petitioner has excluded the cost of freehold land of INR 7.93 Cr for depreciation purpose. The cumulative depreciation of the assets has been capped at 90% of the capital cost. The cumulative depreciation recovered up to previous year is considered as INR 129.64 Cr. Accordingly the depreciation for the year has been considered as INR 2.24 Cr by the Petitioner.

Commission's Analysis

The Commission has considered the average Capital Cost of INR 164.44 Cr inclusive of freehold land cost for calculation of depreciation for FY 2020-21 considering the opening capital cost of INR 164.44 Cr with nil additional capitalization for FY 2020-21. The cost of the freehold land of INR 7.93 Cr has been excluded for depreciation purpose. The cumulative depreciation recovered up to FY 2019-20 is INR 129.64 Cr (which includes cumulative depreciation of INR 127.40 Cr upto 2018-19 and INR 2.24 Cr as depreciation approved for the year 2019-20). As the plant has already completed 12 years from the date of commercial operation and FY 2020-21 was its 20th year of operation, the remaining depreciable value of the asset has been spread over the next 5 years of the useful life, as per the CERC Tariff Regulations 2019.

The cumulative depreciable value of the asset has been capped at 90% of the capital cost of the asset as per the CERC Tariff Regulations 2019. The calculation of the same is as shown in the following table:

Order on True-up of the FY 2020-21 and FY 2021-22, Aggregate Revenue Requirement (ARR) and Determination of Tariff for the FY 2023-24
Puducherry Power Corporation Limited

Table 5: Depreciation approved by the Commission for True-up of FY 2020-21 (In INR Cr)

S. No	Particulars	Approved in Tariff Order FY 2020-21	Petitioner's Submission (True-up)	Approved by Commission for FY 2020-21 (True-up)
1	Average Capital Cost	169.33	164.44	164.44
2	Cost of Freehold (FH) Land	7.93	7.93	7.93
3	Capital cost excluding FH Land	161.40	156.51	156.51
4	Cap on cumulative depreciation (90% of S. No. 3)	145.26	140.86	140.86
5	Cumulative Depreciation upto the previous year	129.83	129.64	129.64
6	Balance depreciation to be recovered	15.43	11.22	11.22
7	Balance useful Life (years)	5.00	5.00	5.00
8	Depreciation for the year	3.09	2.24	2.24

Therefore, the Commission approves depreciation of INR 2.24 Cr for the FY 2020-21.

3.3.3. Interest on Loan

Petitioner's Submission

The Petitioner has claimed NIL interest charges for the True-up of FY 2020-21.

Commission's Analysis

On the basis of the average capital cost of INR 164.44 Cr for FY 2020-21, the gross normative loan is INR 115.11 Cr (70% of the approved average capital cost of INR 164.44 Cr).

As per the CERC Tariff Regulations 2019, the repayment shall be deemed equal to the depreciation amount. It is seen that the cumulative depreciation recovered so far is higher than the gross normative loan amount, and accordingly there is no loan outstanding for the year. In the absence of any outstanding loan amount, the interest charges for the year are approved as NIL.

The computation of the interest charges is as shown in the following table:

Table 6: Interest Charges approved by the Commission for True-up of FY 2020-21 (In INR Cr)

S. No	Particulars	Approved in Tariff Order FY 2020-21	Petitioner's Submission (True-up)	Approved by Commission for FY 2020-21 (True-up)
1	Average capital cost for the year	169.33	164.44	164.44
2	Normative loan at 70% of average capital cost	118.52	115.11	115.11
3	Cumulative repayment up to the previous year	118.52	115.11	115.11
4	Average net loan outstanding	0.00	0.00	0.00
5	Rate of interest (%)	-	-	-
6	Interest on Normative Loan	0.00	0.00	0.00

The Commission, therefore, approves the interest charges on normative loan as NIL for the FY 2020-21

3.3.4. Return on Equity

Petitioner's Submission

The Petitioner has submitted the pre-tax rate of ROE as 21.868% (base rate of return of 15.5% grossed-up by the corporate tax rate of 29.12%). Considering a normative equity capital of 30% of average capital cost of INR 164.44 Cr, the Petitioner has claimed a Return on Equity of INR 10.79 Cr.

Commission's Analysis

CERC Tariff Regulations 2019 specifies that normative equity be capped at 30% of the capital cost. Further, Regulation 30 (2) of the CERC Tariff Regulations 2019 specifies the rate of return on equity shall be at 15.50% for thermal stations.

In respect of grossing up of allowed rate of return on equity with the effective tax rate, Regulation 31 (1) of the CERC Regulations 2019 specifies *"The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations 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 respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be."*

The Commission observes that the Petitioner has paid tax for FY 2020-21 as per Minimum Alternate Tax (MAT). As per the CERC Tariff Regulations 2019, the effective tax rate must be calculated considering the actual tax paid on its actual gross income. Accordingly, the Commission calculated the effective tax rate based on the corporate tax rate applicable to the Petitioner. The applicable tax rate for the FY 2020-21 to domestic companies having Gross Turnover in FY 2018-19 upto INR 250 Cr was at 25%. The Petitioner has submitted ITR for FY 2020-21 which shows that the Gross Total Income is INR 13,96,80,924 and Tax Paid is INR 4,06,75,085. As per ITR for FY 2020-21 submitted by the Petitioner the taxable income is more than INR 10 Cr therefore surcharge of 12% along with cess of 4% is applicable to the Petitioner. The effective rate of tax is derived as 29.12%. Therefore, the pre-tax rate of return on equity for FY 2020-21 is 21.868% (15.50% grossed-up with the effective tax rate of 29.12%).

Considering equity amount as 30% of average capital cost for the year, the Commission has computed the return on equity for PPCL as below:

Table 7: Return on Equity approved by the Commission for True-up of FY 2020-21 (In INR Cr)

S. No	Particulars	Approved in Tariff Order FY 2020-21	Petitioner's Submission (True-up)	Approved by Commission for FY 2020-21 (True-up)
1	Equity capital	50.80	49.33	49.33
2	Rate of return on equity (%)	15.50%	15.50%	15.50%
3	Effective rate of corporate tax (%)	29.12%	29.12%	29.12%
4	Effective rate of return on equity (%)	21.868%	21.868%	21.868%
5	Return on Equity	11.11	10.79	10.79

Therefore, the Commission approves return on equity of INR 10.79 Cr for the FY 2020-21.

3.3.5. Operation and Maintenance (O&M) Expenses

Petitioner's Submission

The Petitioner has claimed O&M expenses of INR 18.40 Cr which include INR 16.13 Cr as approved vide Tariff Order dated 18th May 2020, additional insurance of INR 0.57 Cr and an additional claim of INR 1.70 Cr as impact of the 7th Pay Commission.

Commission's Analysis

As O&M expenses are allowed on a normative basis and the Petitioner has also claimed the same as approved in the Tariff Order for FY 2020-21, the Commission has therefore retained the same for the True-up of FY 2020-21.

The Petitioner has claimed additional insurance of INR 0.57 Cr. The insurance expenses are a part of 'administrative and general' expenses, which are already included in the O&M expenses determined by CERC. Hence, the Commission is of the opinion that the additional expense of INR 0.57 Cr towards insurance premium cannot be allowed to the Petitioner over and above the normative O&M expenses as prescribed by CERC as it is already included in the norms itself. The additional claim of INR 1.70 Cr as impact of the 7th Pay Commission has been allowed.

Table 8: O&M expenses approved by the Commission for True-up of FY 2020-21 (In INR Cr)

S. No	Particulars	Approved in Tariff Order FY 2020-21	Petitioner's Submission (True-up)	Approved by Commission for FY 2020-21 (True-up)
1	CERC norms for O&M expenses (lakhs/MW)	49.62	49.62	49.62
2	O&M expenses as per CERC norms	16.13	16.13	16.13
3	Additional Insurance premium	0.00	0.57	0.00
4	Additional impact of 7 th CPC	0.00	1.70	1.70
5	Total O&M expenses	16.13	18.40	17.83

Therefore, the Commission approves the normative O&M expenses of INR 17.83 Cr for the FY 2020-21.

3.3.6. Interest on Working Capital

Petitioner's Submission

The Petitioner has claimed interest on Working Capital as INR 2.79 Cr, considering the rate of interest as 12.55%.

Commission's Analysis

The Commission has considered CERC Tariff Regulations 2019 for the computation of interest on working capital. As per Regulation 34(1) (b) of the CERC Tariff Regulations 2019, the working capital for a gas turbine generating station shall have the following components:

- i. Fuel cost of 30 days (gas) at NAPAF
- ii. Maintenance spares at 30% of O&M expenses
- iii. Receivables equivalent to 45 days of capacity and energy charge based on the NAPAF
- iv. O&M expenses for one month

The applicable rate of interest shall be as per Regulation 34 (3):

Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of true-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24."

The Bank Rate has been defined in the CERC Tariff Regulations 2019 as follows:

"Bank Rate means the one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points;"

Accordingly, the Commission has considered a 1 year MCLR rate of 7.75% (as on 1st April 2020) and arrived at the MCLR rate of 11.25% (7.75% + 3.50%) for computation of the interest on working capital for FY 2020-21.

The energy charges considered while working out the working capital are based on the average GCV of gas and the landed cost of gas for the period from April 2020 to March 2021. Further, normative generation at a NAPAF of 85% is considered for calculation of the cost of gas for the purpose of working capital. The computation of the interest charges is as follows:

Table 9: Computation of Cost of Gas for 1 month

S. No.	Particulars		MOU	Computation
1	Weighted Average GCV of Gas (As computed in above section)	A	kcal/scm	10,824.71
2	PLF	B	%	85%
3	Capacity	C	MW	32.5
4	Generation	$D = (365 * 24 * C * 1000 * B / 10^6)$	MU	242.00
5	SHR	E	kcal/kWh	2,646.00
6	Sp. gas consumption	$F = E / G$	scm/kWh	0.244
7	Weighted Average Price of Gas (As computed in above section)	G	Rs./1000 scm	7,915.13
8	Cost of gas (30 days)	$H = D * F * (G / 10^4) / 12$	in INR Cr	3.85

Table 10: Interest on working capital approved by the Commission for True-up of FY 2020-21 (In INR Cr)

S. No	Particulars	Approved in Tariff Order FY 2020-21	Petitioner's Submission (True-up)	Approved by Commission for FY 2020-21 (True-up)
1	Cost of gas (one month)	5.34	3.90	3.85
2	Maintenance spares (30% of O&M)	4.84	4.84	4.84
3	Receivables (45 days)	12.15	12.15	9.77
4	O&M expenses (one month)	1.34	1.34	1.34
5	Total Working Capital	23.67	22.23	19.80
6	Rate of Interest (%)	12.05%	12.55%	11.25%
7	Interest on Working Capital	2.85	2.79	2.23

Therefore, the Commission approves interest on Working Capital of INR 2.23 Cr for the FY 2020-21.

3.3.7. Differential Annual Fixed Cost (AFC) approved during the True-up of FY 2020-21

The revised AFC approved by the Commission vis-à-vis that submitted by the Petitioner for FY 2020-21 is as follows:

Table 11: Annual Fixed Cost approved by the Commission for True-up of FY 2020-21 (In INR Cr)

S. No	Particulars	Approved in Tariff Order FY 2020-21	Petitioner's Submission (True-up)	Approved by Commission for FY 2020-21 (True-up)
1	Depreciation	3.09	2.24	2.24
2	Interest on Loan	0.00	0.00	0.00
3	Return on Equity	11.11	10.79	10.79
4	Operation and Maintenance Expenses	16.13	18.40	17.83
5	Interest on Working Capital	2.85	2.79	2.23
6	Annual Fixed Charges	33.17	34.22	33.09

The Commission in the Tariff Order for FY 2020-21, dated 18th May 2020, had approved AFC of INR 33.17 Cr. The AFC has now been trued up to INR 33.09 Cr for FY 2020-21, based on the True-up exercise carried out by the Commission.

The Commission has re-calculated the capacity charges for FY 2020-21 in the below table based on the formula as prescribed in the CERC Tariff Regulations 2019. The formula takes into account the actual availability vis-à-vis the normative availability.

Table 12: Differential monthly capacity charges approved by the Commission for True-up of FY 2020-21 (in INR Cr)

Month	PLF during month	Cumulative PLF	NAPLF	Capacity charges Approved for PPCL in Order (AFC Approved INR 33.17 Cr)	Capacity charges billed by PPCL to PED (As per Actuals Submitted by Petitioner)	Capacity charges entitled at AFC approved in this True-up order
Apr-20	83.68%	83.68%	85.00%	2.72	2.74	2.71
May-20	86.93%	85.33%	85.00%	2.81	2.78	2.80
Jun-20	87.62%	86.09%	85.00%	2.76	2.78	2.76
Jul-20	79.69%	84.46%	85.00%	2.76	2.74	2.69
Aug-20	75.90%	82.73%	85.00%	2.76	2.38	2.46
Sep-20	80.63%	82.38%	85.00%	2.76	2.60	2.62
Oct-20	89.72%	83.45%	85.00%	2.76	2.60	2.91
Nov-20	83.71%	83.48%	85.00%	2.76	2.71	2.72
Dec-20	86.85%	83.86%	85.00%	2.76	2.81	2.82

Month	PLF during month	Cumulative PLF	NAPLF	Capacity charges Approved for PPCL in Order (AFC Approved INR 33.17 Cr)	Capacity charges billed by PPCL to PED (As per Actuals Submitted by Petitioner)	Capacity charges entitled at AFC approved in this True-up order
Jan-21	71.21%	82.58%	85.00%	2.76	2.34	2.30
Feb-21	54.00%	80.10%	85.00%	2.76	1.77	1.80
Mar-21	89.17%	80.87%	85.00%	2.76	2.89	2.90
Total				33.17	31.13	31.48

3.3.8. Carrying Cost on Differential Annual Fixed Cost (AFC)

Regulation 10(7) of the CERC Tariff Regulations 2019 states that:

“The difference between the tariff determined in accordance with clauses (3) and (5) above and clauses (4) and (5) above, shall be recovered from or refunded to, the beneficiaries or the long term customers, as the case may be, with simple interest at the rate equal to the bank rate prevailing as on 1st April of the respective year of the tariff period, in six equal monthly instalments.”

The Petitioner billed the Capacity Charges at INR 31.13 Cr to PED; hence the Commission has considered a gap of INR 0.36 Cr (INR 31.48 Cr less INR 31.13 Cr) in FY 2020-21. The Commission is of the opinion that true-up for FY 2020-21 should have been carried out along with the Tariff for FY 2022-23. However, owing to unavailability of audited accounts, the Petitioner did not file the Petition for True-up for FY 2020-21 along with the petition for Tariff for FY 2022-23. Hence, no carrying cost has been allowed in FY 2022-23. Considering the holding cost for FY 2020-21, FY 2021-22 and FY 2023-24, the Commission has computed the total claim allowed to the Petitioner (including holding cost) in the table below.

The computation of holding cost is shown in the following table:

Table 13: Computation of holding cost on differential AFC for FY 2022-23 (In INR Cr)

Particular	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Opening balance	0.00	0.37	0.41	0.41
Addition/(Reduction)	0.35	0.00	0.00	(0.41)
Closing balance	0.35	0.37	0.41	0.00
Average balance	0.18	0.37	0.41	0.20
SBI MCLR rate as on 1st April	7.75%	7.00%	-	8.50%
Bank Rate (MCLR Rate + 3.50%)	11.25%	10.50%	-	12.00%
Carrying Cost	0.02	0.04	0.00	0.02
Cumulative carrying cost with differential AFC	0.37	0.41	0.41	0.43

*The differential is allowed to be recovered in FY 2023-24; hence, the surplus has been reduced in the same year.

#The holding cost has been allowed for 9 months as the differential AFC has been allowed to be recovered by Dec' 23.

Therefore, the Commission approves a gap of INR 0.43 Cr as part of the True-up exercise for the FY 2020-21 and allows the Petitioner to recover the same from PED during the FY 2023-24 in six equal monthly instalments starting within three months from the date of the Tariff Order.

3.4. Variable Charge/ Energy Charge approved for the True-up of FY 2020-21

The Commission, as per its Order dated 18th May 2020, had approved the formula on the basis of which the variable charge/energy charge would be claimed for FY 2020-21. The formula for the energy charge (per unit basis) accounts for the actual gas cost, the actual gross calorific value of the gas, normative auxiliary consumption and normative gross station heat rate (normative parameters approved by the Commission for FY 2020-21). The Petitioner has been billing the variable charge/ energy charge for FY 2020-21 based on this formula.

The Commission, as part of the prudence check during the Truing-up exercise, has verified the bills that have been raised to the beneficiary (the respondent), i.e., PED, for FY 2020-21. The Commission has found the power sale bills to be in order and as per the parameters approved by the Commission.

The Commission, therefore, does not find any variation in the amount due as differential to the Petitioner on account of the variable charge / energy charge during the True-up exercise for the year.

4. Chapter 4: True-up for FY 2021-22

4.1. Applicable Regulations for True-up

The True-up for the FY 2021-22 has to be carried out in accordance with Regulation 11 of the JERC (Generation, Transmission and Distribution Multi-Year Tariff) Regulations, 2018 stated as follows:

“11 Annual Performance Review, Truing-up and tariff determination during the Control Period

11.1 *The Generating Company, Transmission Licensee and Distribution Licensee shall be subject to annual performance review and truing up of expenses and revenue during the Control Period in accordance with these Regulations.*

11.2 *The Generating Company, Transmission Licensee and Distribution Licensee shall file an application for the annual performance review of the current year, truing up of the previous Year or the Year for which the audited accounts are available and determination of tariff for the ensuing Year on or before 30th November of each Year:*

Provided that the Generating Company, Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be specified by the Commission, together with the audited accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges.

11.3

11.4

11.5

4.2. Approach for Truing-up of the FY 2021-22

Regulation quoted above require audited accounts be made available for the ‘Truing Up’ exercise of the appropriate year to be carried out. However, the Petitioner has failed to submit audited accounts for the FY 2021-22. The Petitioner submitted that Accounts of the Corporation for the FY 2021-22 would be placed before the Audit Committee for approval and thereafter it would be sent to the Statutory Auditor for their audit and report, which would require time. Therefore, the Petitioner has submitted Unaudited Accounts for FY 2021-22. The Petitioner maintained the same stand during the Technical Validation Session (TVS) and submitted that it would require approximately 2 months for submission of final annual audited accounts for FY 2021-22 to the Commission.

Accordingly, the Commission is not carrying out the Truing Up exercise for FY 2021-22 in the current Order. Any parameter considered for the determination of ARR and revenue gap/surplus in the subsequent chapters will be considered as per the Commission’s True-up Order for the FY 2020-21 as a part of the current Order. Further, the Commission directs the Petitioner to submit the audited accounts for the FY 2021-22 along with Petition for determination of ARR for the FY 2024-25.

5. Chapter 5: Determination of AFC for FY 2023-24

5.1. Background

In this Chapter, the Commission has determined the Annual Fixed Cost (AFC) and the normative variable cost parameters for FY 2023-24.

5.2. Regulations

The Regulation 38 of JERC (MYT) Regulations, 2021 provides as follows:

“38 Components of Tariff

38.1 The Aggregate Revenue Requirement for a Generation Company shall comprise of the following components:

- a) Return on Equity;*
- b) Interest and finance charges on Loan;*
- c) Depreciation;*
- d) Interest on Working Capital;*
- e) Operation and maintenance expenses;*
- f) Income tax.*

38.2 The treatment of each of the above components shall be in accordance with the prevalent CERC Tariff Regulations governing generation of electricity.

38.3 The recovery of Aggregate Revenue Requirement and fuel cost for a Generation Company shall be in accordance with the prevalent CERC Tariff Regulations governing generation of electricity.”

The Commission, for the purpose of calculation of AFC for FY 2023-24, has considered the CERC Tariff Regulations for the period FY 2019-24 issued by CERC vide notification no. L-1/236/2018/CERC dated 7th March 2019 (hereinafter referred to as CERC Tariff Regulations 2019).

5.3. Operational Parameters

5.3.1. Normative Annual Plant Availability Factor (NAPAF)

Petitioner’s Submission

The Petitioner has considered a Normative Annual Plant Availability Factor (NAPAF) of 85% for FY 2023-24, in line with the previous Orders issued by the Commission.

Commission’s Analysis

The Commission had approved NAPAF of 85% for each of the years from FY 2013-14 to FY 2019-20 as per the Tariff Orders of the respective years, in compliance with the judgment of Hon’ble APTEL in Appeal No. 41/2012 on 21st November 2012. The Commission has also perused the CERC Tariff Regulations 2019 and maintained the NAPAF to be 85% as per Regulation 49 (A) (a).

The Commission will revisit the same at the time of the True-up of the respective year. The Petitioner is directed to maintain the details of backing down of the power plant as may be required by PED, actual shutdown schedules and other uncontrollable factors affecting the operations of the plant and submit the same for review of the Commission along with the filing of the True-up of the respective years.

The Commission approves NAPAF at 85% for FY 2023-24.

5.3.2. Auxiliary Power Consumption (APC)

Petitioner's Submission

With regard to auxiliary power consumption, the Petitioner seeks to invoke the power of the Commission to deviate from the Tariff Regulations, 2021 considering the peculiar facts of the case and for reasons beyond the control of the Petitioner. The Auxiliary Power Consumption (APC) is considered as per actual based on the period from 01.04.2020 to 31.03.2021, which is 5.50%, because the station has electric Gas Booster Compressor pumps due to which APC is higher. The Petitioner submitted that CEA recommends higher auxiliary consumption for plants with electric gas booster pumps. Further, the Petitioner has submitted that the APTEL has held in a number of judgments that the vintage of power plants is to be kept in mind before determining the various operating parameters for the power plant. Accordingly, the Petitioner has prayed for APC of 5.00% for FY 2023-24 .

Commission's Analysis

The norms mentioned in the Regulation 49 (E) (c) of the CERC Tariff Regulations 2019 for gas turbine generating stations is as given below:

“(c) For Gas Turbine /Combined Cycle generating stations:

(i) Combined Cycle : 2.75%

(ii) Open Cycle : 1.00%

Provided that where the gas based generating station is using electric motor driven Gas Booster Compressor, the Auxiliary Energy Consumption in case of Combine Cycle mode shall be 3.30% (including impact of air-cooled condensers for Steam Turbine Generators):

...” (Emphasis Added)

The CERC Tariff Regulations 2019 explicitly specify APC of 3.30% for Combined Cycle generating stations using electric motor driven Gas Booster Compressor as quoted above.

The Commission vide order dated 31.3.2022 approved APC at 3.30% for the 3rd MYT Control Period. **Hence, the Commission considers the same APC at 3.30% for FY 2023-24. The same shall be reviewed at the time of true-up.**

5.3.3. Gross Station Heat Rate (GSHR)

Petitioner's Submission

The CERC Regulations provide for the determination of station heat rate based on GCV. The Petitioner has submitted that the station design net heat rate is 2,291 kcal/kWh. The gross design heat rate for net station design heat rate of 2,291 kcal/kWh works out to 2520 (2291*1.1) kcal/kWh, considering a conversion factor of 1.1, i.e. GCV = 110% of NCV. Further, applying the degradation factor of 5% as per the CERC Tariff Regulations, the normative GSHR comes to 2,520 * 1.05 = 2,646 kcal/kWh. The Commission has also approved the GSHR at 2,646 kcal/kWh for FY 2015-16 based on the submission of the Performance Guarantee Report of the Corporation for the guaranteed heat rate of 2,291 kcal/kWh (on the basis of the NCV of the gas). Accordingly, the Petitioner has sought GSHR of 2,646 kcal/kWh for of FY 2023-24.

Commission's Analysis

The Commission had dealt with the issue of fixing the GSHR in the earlier Tariff Order, dated 25th April 2014, after elaborately analysing the past actuals of the heat rate for 12 years and the CERC Order dated 07th June 2012 on NEEPCO's Petition for revising the GSHR of Assam and Agartala gas power projects (analogous to the PPCL plant). The Commission had also gone through the Performance Guarantee Report of the PPCL gas power station for the guaranteed heat rate of 2,291 kcal/kWh (on the basis of the NCV of the gas), and accordingly approved GSHR at

2,646 kcal/kWh for FY 2014-15. A similar principle had been applied for approving the GSHR at 2,646 kcal/kWh in the last Control Period.

On similar lines and considering the Performance Guarantee Report of PPCL gas power station for the guaranteed heat rate of 2,291 kcal/kWh (on the basis of the NCV of the gas), the Commission approves the GSHR at 2,646 kcal/kWh for FY 2023-24.

The Commission approves the GSHR for PPCL gas station at 2,646 kcal/kWh for FY 2023-24.

5.4. Variable Cost Parameters for Working Capital

The Commission has prescribed a formula, in line with the CERC Tariff Regulations 2019, for calculating the monthly energy (variable) charge for billing purpose in Section 5.6 of this Order. Further, in the following paragraphs, variable charges have been computed using the same formula to work out the cost of gas (one month) and receivables for two months (energy charge component), which are used for calculation of the working capital requirement. The same shall be revisited based on the prevalent CERC Tariff Regulations at the time of True-up of FY 2023-24.

The details of the weighted average Gross Calorific Value (GCV) and the price of gas, as submitted by the Petitioner and the Commission's analysis, are discussed in subsequent paragraphs.

5.4.1. Data for Calculation of Parameters

Petitioner's Submission

The Petitioner has considered a GCV of gas as 10888.75 kcal/Cu.m for FY 2023-24 based on average data from July 2022 to September 2022. Further, the Petitioner considered the data for computation of the average cost of gas based on data for August 2022.

Table 14: Details submitted by Petitioner for computation of weighted average GCV and price of gas

S.No.	Particulars	Unit	Jul'22	Aug'22	Sep'22
1	Quantity of gas supplied by GAIL	Cu.m	4173361.00	5131338.00	4967959.00
2	Adjustment(+/-) in quantity supplied made by GAIL	Cu.m	0.00	0.00	0.00
3	Gas supplied by GAIL (1+2)	Cu.m	4173361.00	5131338.00	4967959.00
4	Normative Transit & Handling Losses	Cu.m	0.00	0.00	0.00
5	Net Gas Supplied (3-4)	Cu.m	4173361.00	5131338.00	4967959.00
6	Amount charged by the Gas Company	INR	101621702.00	135078076.00	131638472.00
7	Adjustment(+/-) in amount charged made by Gas Company	INR	0.00	0.00	0.00
8	Total amount charged (6+7)	INR	101621702.00	135078076.00	131638472.00
9	Transportation charges by rail / ship / road transport	INR	0.00	0.00	0.00
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	INR	0.00	0.00	0.00
11	Demurrage Charges, if any	INR	0.00	0.00	0.00

S.No.	Particulars	Unit	Jul'22	Aug'22	Sep'22
12	Cost of diesel in transporting gas through other system, if applicable	INR	0.00	0.00	0.00
13	Total Transportation Charges (9+/-10-11+12)	INR	0.00	0.00	0.00
14	Total amount Charged for fuel supplied including Transportation (8+13)	INR	101621702.00	135078076.00	131638472.00
15	Average GCV of Gas as fired	kcal/Cu.m	10711.97	10744.74	10820.29
16	Average rate of Fuel/1000 Cu.m	INR/1000 Cu.m	24350.09	26324.14	26497.50

Commission's Analysis

The CERC Tariff Regulations 2019 for calculation of the working capital requirement state that:

"The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined."

The Commission has considered the latest data available for determining the calorific value and price of gas for working capital. The Petitioner has submitted invoices raised by GAIL for the period from Apr'22 to Jan'23. The Commission has considered the data for same period as proposed by the Petitioner (July 2022 to January 2023). The data for the same has been tabulated below:

Table 15: Details considered by Commission for computation of weighted average GCV and price of gas

S. No	Particulars	Unit	Jul'22	Aug'22	Sep'22	Oct'22	Nov'22	Dec'22	Jan'23
1	Quantity of gas supplied by GAIL	Cu.m	4173361	5131338	4967959	5242242	5047541	5166448	5021100
2	Adjustment (+/-) in quantity supplied made by GAIL	Cu.m	0	0	0	0	0	0	0
3	Gas supplied by GAIL (1+2)	Cu.m	4173361	5131338	4967959	5242242	5047541	5166448	5021100
4	Normative Transit & Handling Losses	Cu.m	0	0	0	0	0	0	0
5	Net Gas Supplied (3-4)	Cu.m	4173361	5131338	4967959	5242242	5047541	5166448	5021100
6	Amount charged by the Gas Company	INR	101621702	135078076	131638472	192092269	190125360	193864441	190685680
7	Adjustment (+/-) in amount charged made by Gas Company	INR	0	0	0	0	0	0	0

S. No	Particulars	Unit	Jul'22	Aug'22	Sep'22	Oct'22	Nov'22	Dec'22	Jan'23
8	Total amount charged (6+7)	INR	101621702	135078076	131638472	192092269	190125360	193864441	190685680
9	Transportation charges by rail / ship / road transport	INR	0	0	0	0	0	0	0
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	INR	0	0	0	0	0	0	0
11	Demurrage Charges, if any	INR	0	0	0	0	0	0	0
12	Cost of diesel in transporting gas through other system, if applicable	INR	0	0	0	0	0	0	0
13	Total Transportation Charges (9+/-10-11+12)	INR	0	0	0	0	0	0	0
14	Total amount Charged for fuel supplied including Transportation (8+13)	INR	101621702	135078076	131638472	192092269	190125360	193864441	190685680
15	Average GCV of Gas as fired	kcal/Cu.m	10711.97	10744.74	10820.29	10880.35	10918.01	10941.93	10992.93
16	Average rate of Fuel/1000 Cu.m	INR/1000 Cu.m	24350.09	26324.14	26497.50	36643.15	37666.93	37523.74	37976.87

5.4.2. Weighted Average Gross Calorific Value (GCV) of Gas

Petitioner's Submission

The Petitioner has considered a GCV of gas as 10888.75 kcal/Cu.m for FY 2023-24 based on average data from July 2022 to September 2022. Further, the Petitioner considered the data for computation of the average cost of gas based on data for August 2022.

Commission's Analysis

The Commission has considered the average GCV of gas for Jul'22, Aug'22 and Sep'22 to compute the weighted average GCV of gas (weighted by the quantity of gas procured in respective months) for computation of working capital.

Table 16: Computation of weighted average GCV of gas

S. No.	Particulars	Unit	Jul-22	Aug-22	Sep-22
1	Quantity of gas supplied by GAIL	Cu.m	4173361	5131338	4967959
2	Weighted average GCV of gas as fired	kcal/Cu.m	10711.97	10744.74	10820.29
3	Weighted average GCV of gas (3 Months)	kcal/Cu.m	10761.45		

Accordingly, the Commission considers the Gross Calorific Value of gas as 10,761.45 kcal/SCM for the purpose of computation of the fuel cost for the Working Capital requirement for FY 2023-24.

5.4.3. Weighted Average Price of Gas

Petitioner's Submission

The Petitioner has considered the average price of gas at INR 26324.00 per 1000 Cu.m, based on the Aug'22 month. This has been considered to arrive at the fuel cost for computing the requirement of working capital.

Commission's Analysis

The Commission has accordingly considered fuel bills for the period from Jul'22, Aug'22 and Sep'22 for computation of landed cost of fuel.

Table 17: Computation of weighted average price of gas

S. No.	Particulars	Unit	Jul-22	Aug-22	Sep-22
1	Quantity of gas supplied by GAIL	Cu.m	4173361	5131338	4967959
2	Weighted average rate of fuel	INR/1000 cu.m	24350.09	26324.14	26497.50
3	Weighted average price of gas (3 months)	INR/1000 cu.m	25807.26		

Accordingly, the Commission considers the weighted average cost of gas at INR 25807.26 per 1000 Cu.m for the purpose of computation of fuel cost for working capital requirement for FY 2023-24.

5.4.4. Energy (Variable) Charges for Working Capital requirement

Based on the performance and cost parameters as approved in the earlier paragraphs, the fuel cost of PPCL gas station at 85% NAPAF, is worked out as given in the following table:

Table 18: Variable Charges for Working Capital

S.No.	Particular	Unit	Approved Value
1	Station Heat Rate (A)	kcal/kWh	2,646.00
2	Gross Calorific Value of Gas (B)	kcal/ Cu.m	10,761.45
3	Price of gas (C)	INR/Cu.m	25.807
4	Fuel Cost /Gross units (D = A*(C/B))	INR/kWh	6.345
5	Fuel Cost/Net units (E = D/(1-APC(3.30%)))	INR/kWh	6.562

5.5. Annual Fixed Cost (AFC) approved for FY 2023-24

The following components have been considered as part of the fixed charge for FY 2023-24 as per Regulation 38.1 of the JERC (Generation, Transmission and Distribution Multi-Year Tariff) Regulations, 2021:

1. Depreciation
2. Interest on Loan
3. Return on Equity
4. O&M Expenses
5. Interest on Working Capital

These are discussed in detail in the subsequent sections.

5.5.1. Capital Expenditure and Capitalisation for FY 2023-24

Petitioner's Submission

The Petitioner has projected nil additional capital expenditure for FY 2023-24.

Commission's Analysis

The Commission approves NIL capital expenditure and capitalization as submitted by the Petitioner for FY 2023-24.

5.5.2. Capital Cost

Petitioner's Submission

The Petitioner has considered a total opening capital cost of INR 164.44 Cr as per the Commission Order dated 7th April 2021. Further, the Petitioner has not projected any additional capital expenditure during FY 2023-24.

Commission's Analysis

The Commission has approved closing capital cost for FY 2021-22 as INR 164.44 Cr as part of the current Order. Further, the Commission has considered the nil additional capitalization for FY 2023-24 as projected by the Petitioner. The detailed computation is shown in the following table:

Table 19: Capital Cost approved by the Commission for FY 2023-24 (INR Cr)

S. No	Particulars	Approved in MYT order	Petitioner's Submission	Now Approved by Commission
1	Opening capital cost	164.44	164.44	164.44
2	Additional Capitalization	0.00	0.00	0.00
3	Closing Capital Cost	164.44	164.44	164.44
4	Average Capital Cost	164.44	164.44	164.44

5.5.3. Depreciation

Petitioner's Submission

The Petitioner has projected the depreciation charge for FY 2023-24 at INR 2.24 Cr. The Petitioner has restricted the cumulative depreciation of the assets at 90% of the capitalised value of the asset. The rate of depreciation has been considered as per CERC Tariff Regulations 2019. The Petitioner also submitted that the station is 23 years old, and the Petitioner has calculated depreciation, accordingly, based on the same methodology as adopted for the previous years.

Commission's Analysis

The Commission has considered average capital cost of INR 164.44 Cr inclusive of freehold land cost for FY 2023-24, as described in the previous section. The cost of the freehold land of INR 7.93 Cr has been excluded for depreciation purpose.

The cumulative depreciation recovered up to FY 2022-23 is INR 136.37 Cr, considering cumulative depreciation of INR 134.13 Cr up to FY 2021-22 and depreciation of INR 2.24 Cr for FY 2022-23 (As per MYT order).

It is noted that the plant is in its 23rd year of commercial operation during FY 2023-24. The remaining depreciable value (upto 90% of the capital cost) of the asset has been spread over the balance useful life of the asset, i.e. 2 years for FY 2023-24 and 1 year for FY 2024-25, in line with the following provision of Regulation 33 (5) of the CERC Tariff Regulations 2019:

"Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets."

The depreciable value of the asset (excluding land valued at INR 7.93 Cr) has been capped at 90% of the capital cost of the asset, and accordingly the depreciation for FY 2023-24 is approved as shown in the following table:

Table 20: Depreciation approved by the Commission for FY 2023-24 (In INR Cr)

S. No	Particulars	Approved in MYT order	Petitioner's Submission	Now Approved by Commission
1	Average Capital Cost	164.44	164.44	164.44
2	Cost of Freehold Land	7.93	7.93	7.93
3	Capital cost excluding FH Land	156.51	156.51	156.51
4	Cap on Depreciation	140.86	140.86	140.86
5	Cumulative Depreciation upto the previous year	136.37	136.37	136.37
	Balance depreciation to be recovered	4.49	4.49	4.49
6	Balance useful Life	2.00	2.00	2.00
7	Depreciation for the year	2.24	2.24	2.24

The Commission approves the depreciation at INR 2.24 Cr of FY 2023-24.

5.5.4. Interest on Loan

Petitioner's Submission

The Petitioner has claimed NIL interest charges for FY 2023-24.

Commission's Analysis

It is observed that the cumulative depreciation recovered for FY 2023-24 is INR 138.61 Cr as also reflected in above Depreciation section. The gross normative average loan is INR 115.11 Cr for FY 2023-24 based on the approved average capital cost in aforementioned section.

Table 21: Interest on loan approved by the Commission for FY 2023-24 (In INR Cr)

S. No	Particulars	Approved in MYT order	Petitioner's Submission	Now Approved by Commission
1	Average Capital cost for the year	164.44	164.44	164.44
2	Normative Loan at 70% of average capital cost	115.11	115.11	115.11

S. No	Particulars	Approved in MYT order	Petitioner's Submission	Now Approved by Commission
3	Cumulative repayment up to previous year	115.11	115.11	115.11
4	Average net loan outstanding	0.00	0.00	0.00
5	Rate of Interest	-	-	
6	Interest on Normative Loan	0.00	0.00	0.00

The Commission observes that the cumulative depreciation recovered so far is higher than the gross normative loan amount for the FY 2023-24, and accordingly there is no loan outstanding for the period. In the absence of any outstanding loan amount, the interest charges for the FY 2023-24 are approved as NIL.

The Commission approves the interest charges on normative loan as NIL for FY 2023-24. However, the same shall be revisited as per prevailing CERC Regulations during the time of True-up.

5.5.5. Return on Equity

Petitioner's Submission

Since the entire capital cost for PPCL has been financed through its own funds, the equity has been considered at the normative level of 30% and the balance 70% has been considered as normative loan for calculation of Interest on Loan component of capacity charges.

The return on Equity has been calculated @ 21.868% (base rate of return of 15.5% grossed up by the corporate tax rate of 29.12%) for the FY 2021-22 as per CERC Tariff Regulations 2019. Accordingly, the Petitioner has claimed a return on equity of INR 10.79 Cr for FY 2023-24.

Commission's Analysis

CERC Tariff Regulations 2019 specifies that normative equity be capped at 30% of the capital cost. Further, Regulation 30 (2) of the CERC Tariff Regulations 2019 specifies the rate of return on equity as 15.50% for thermal stations.

In respect of grossing up of allowed rate of return on equity with the effective tax rate, Regulation 31 (1) of the CERC Regulations 2019 specifies *"The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations 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 respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be."*

Accordingly, the Commission for the purpose of computation of Return on Equity has considered 30% of the average capital cost as equity and the rate of return on equity at 15.50% as per CERC Tariff Regulations 2019.

The Petitioner, during the TVS session, submitted that they will be adopting for the new tax regime for FY 2023-24 where rate of tax is 22%, surcharge at 10% and education cess at 4%. The Petitioner has already paid income tax under the new regime for FY 2022-23, for which it has submitted the Income Tax Returns as well. The Commission takes note of the Petitioner's submission and has considered the effective tax rate based on the corporate tax rates as applicable for FY 2022-23. Accordingly, the Commission has considered an effective tax rate of 25.17% (corporate tax rate of 22%, surcharge of 10% and health & education cess of 4%) and the grossed-up rate of return on equity as 20.713% for FY 2023-24. The detailed computation is shown in the following table:

Table 22: Return on Equity approved by the Commission for FY 2023-24 (In INR Cr)

S. No	Particulars	Approved in MYT order	Petitioner's Submission	Now Approved by Commission
1	Equity Capital	49.33	49.33	49.33
2	Rate of Return on Equity (%)	15.50	15.50	15.50

S. No	Particulars	Approved in MYT order	Petitioner's Submission	Now Approved by Commission
3	Effective Rate of Corporate Tax (%)	29.12	29.12	25.17
4	Effective Rate of Return on Equity (%)	21.868	21.868	20.713
5	Return on Equity	10.79	10.79	10.22

The effective rate of return on equity shall be reviewed at the time of True-up. Accordingly, the Petitioner is directed to provide the necessary details at the time of the True-up for calculation of effective tax rate.

The Commission approves a return on equity of INR 10.22 Cr for FY 2023-24. However, the same shall be revisited during the time of True-up.

5.5.6. Operation and Maintenance (O&M) Expenses

Petitioner's Submission

The Petitioner has considered the O&M expenses at INR 56.60 lakh/MW* 1.068 = INR 60.45 lac/MW as approved by the Commission in its tariff order dated 31st March 2022. Accordingly, the Petitioner has computed INR 19.65 Cr towards O&M expenses for the FY 2023-24.

Commission's Analysis

The Commission has examined the O&M expenses claimed by the Petitioner. The CERC Tariff Regulations 2019 specifies norms of INR 36.21 lakh/MW, INR 37.48 lakh/MW, INR 38.80 lakh/MW, INR 40.16 lakh/MW and INR 41.57 lakh/MW for FY 2019-20, FY 2020-21, FY 2021-22, FY 2022-23, and FY 2023-24 respectively. However, the Commission observes that PPCL is nearing the end of its useful life (i.e. by FY 2025-26) and it does not reap the benefits of economies of scale, as its plant capacity is relatively less i.e. 32.5 MW. The Commission has already allowed the similar relaxation in O&M expenses norms for 2nd MYT Control Period in Order dated 20 May 2019. The Extract of the same is as under:

“Commission's Analysis

The Commission has examined the O&M expenses claimed by the Petitioner. The CERC Tariff Regulations 2019 specifies norms of INR 36.21 lakh/MW, INR 37.48 lakh/MW and INR 38.80 lakh/MW for FY 2019-20, FY 2020-21 and FY 2021-22 respectively. However, the Commission observes that PPCL is nearing the end of its useful life (i.e. by FY 2025-26) and it does not reap the benefits of economies of scale, as its plant capacity is relatively less i.e. 32.5 MW. In light of the above, the Commission has opted to continue with the norms of CERC Tariff Regulations 2014 for now. However, the same shall be revisited during the True-up exercise of the respective years.”

In light of the above, the Commission has opted to continue with the norms of CERC Tariff Regulations 2014 for now.

As per Regulation 29(1)(c) of the CERC Tariff Regulations 2014, the O&M expenses for small gas turbine power generating plants for FY 2019-20 are to be considered as INR 46.46 lakh/MW. Further, the Commission has derived the escalation rate from the norms as shown in the following table:

Table 23: O&M Norms for Small gas turbine power generating stations as per CERC Tariff Regulations 2014 (in INR Lakh/MW)

FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	CAGR (FY 2014-15 to FY 2018-19)
33.43	35.70	38.13	40.73	43.50	6.80%

O&M norms for FY 2023-24 after considering the escalation rate of 6.80% is shown in the Table below:

Table 24: O&M Norms after considering escalation rate (in INR Lakh/MW)

FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
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46.46	49.62	53.00	56.60	60.45
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Accordingly, the O&M expenses for PPCL (32.5 MW) gas plant have been worked out for FY 2023-24 as shown in the following table:

Table 25: O&M Expenses approved by the Commission for FY 2023-24 (In INR Cr)

S. No	Particulars	Approved in MYT Order	Petitioner's Submission	Now Approved by Commission
1	O&M Norms (in INR Lakh/MW)	60.45	60.45	60.45
2	O&M Expenses	19.65	19.65	19.65
3	Additional Expenditure Claimed/Allowed	0.00	0.00	0.00
4	Total O&M Expenses	19.65	19.65	19.65

5.5.7. Interest on Working Capital

Petitioner's Submission

For computing the Interest on Working Capital (IWC), the Petitioner has considered the rate of interest as 'Bank Rate' as applicable on 1st April 2022. The energy charges considered while working out IWC are based on average actual fuel consumption and payments made pertaining the period of July '22, August '22 and September '22.

Accordingly, the Petitioner has claimed interest on working capital of INR 3.75 Cr for FY 2023-24.

Commission's Analysis

The Commission has considered CERC Tariff Regulations 2019 for the computation of interest on working capital. As per Regulation 34 (1) (b) of the CERC Tariff Regulations 2019, the working capital for a gas turbine generating station shall have the following components:

- Fuel cost of 30 days (Gas) at NAPAF
- Maintenance spares at 30% of O&M expenses including water charges and security expenses
- Receivables equivalent to 45 days of capacity and energy charge based on the NAPAF
- O&M expenses, including water charges and security expenses, for one month

The applicable rate of interest for computation of interest on working capital as per Regulation 34 (3) of the CERC Tariff Regulations, 2019 is:

'Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later'

The Bank Rate has been defined in the Regulations as follows:

'Bank Rate means one year marginal cost of lending rate (MCLR) of the State Bank of India issued from time to time plus 350 basis points'

Accordingly, the Commission has considered the latest available SBI one-year MCLR of 8.50% (applicable as on 1.4.2022) and arrived at the bank rate of 10.50% (7.00% + 3.50%) for computation of the IWC for FY 2023-24. The relevant interest rate as on 1st April of the respective year shall be considered based on the prevalent CERC Tariff Regulations during the True-up of the respective year.

The energy charges considered while calculating working capital are based on average actual fuel consumption and payments made in July '22, August '22 and September '22. The weighted average GCV and weighted average cost of gas for calculating the fuel requirement/cost are discussed in above Sections. Energy charges for working capital purposes have been worked out corresponding to generation at NAPAF of 85%.

The Commission has considered the working capital and interest thereon, as per the Regulations mentioned above at an interest rate of 10.50% per annum. The detailed computation is shown in the following table:

Table 26: Computation of Cost of Gas for 1 month

S. No.	Particulars		MOU	Computation
1	Weighted Average GCV of Gas (As computed in above section)	A	kcal/scm	10,761.45
2	PLF	B	%	85%
3	Capacity	C	MW	32.5
4	Generation	$D=(365*24*C*1000* B/10^6)$	MU	242.00
5	SHR	E	kcal/kWh	2,646
6	Sp. gas consumption	F=E/G	scm/kWh	0.246
7	Weighted Average Price of Gas (As computed in above section)	G	Rs./1000 scm	25807.26
8	Cost of gas (30 days)	$H=D*F*(G/10^4)/12$	in INR Cr	12.62

Table 27: Interest on working capital approved by the Commission for FY 2023-24 (In INR Cr)

S. No	Particulars	Approved in MYT order	Petitioner's Submission	Now Approved by Commission
1	Cost of gas (one month)	5.77	12.90	12.62
2	Maintenance spares (30% of O&M)	5.89	5.90	5.90
3	Receivables (45 days)	13.01	13.01	23.17
4	O&M expenses (one month)	1.64	1.64	1.64
5	Total Working Capital	26.30	33.44	43.32
6	Rate of Interest	10.50%	11.20%	10.50%
7	Interest on Working Capital	2.76	3.75	4.55

5.5.8. Annual Fixed Cost (AFC) approved for FY 2023-24

The Commission based on the analysis of the AFC parameters in the above paragraphs approves the Annual Fixed Cost for FY 2023-24 as shown in the following table:

Table 28: Annual Fixed Cost approved by the Commission for FY 2023-24 (In INR Cr)

S. No	Particulars	Approved in MYT order	Petitioner's Submission	Now Approved by Commission
1	Depreciation	2.24	2.24	2.24
2	Interest on Loan	0.00	0.00	0.00
3	Return on Equity	10.79	10.79	10.22
4	Operation and Maintenance Expenses	19.65	19.65	19.65
5	Interest on Working Capital	2.76	3.75	4.55
6	Annual Fixed Charges	35.44	36.43	36.66

5.6. Energy/ Variable Charge (Net)

The Commission approves the computation of energy charge for FY 2023-24 based on the following formula specified in the CERC Tariff Regulations 2019:

Order on True-up of the FY 2020-21 and FY 2021-22, Aggregate Revenue Requirement (ARR) and Determination of Tariff for the FY 2023-24
Puducherry Power Corporation Limited

$$\text{ECR} = \text{GSHR} \times \text{LPPF} \times 100 / \{(\text{CVPF}) \times (100 - \text{AUX})\}$$

Where

ECR= Energy Charge Rate, in INR per kWh, sent out upto three decimal places

GSHR= Normative Gross Station Heat Rate in kcal/kWh

LPPF= Weighted average landed price of gas in INR/Cu.m, during the calendar month

CVPF= Weighted average Gross Calorific Value of gas, in kcal per Cu.m

AUX= Normative Auxiliary Power Consumption in percentage

Based on the parameters above, an *illustrative example* is as shown below:

Assuming,

GSHR = Normative Gross Station Heat Rate i.e. 2646 kcal/kWh for FY 2020-21

LPPF = INR 11.798/Cu.m

CVPF = 10,758.05 kcal/Cu.m

AUX = Normative Auxiliary Power Consumption, at 3.30% for FY 2022-23

ECR = $2646 \times 11.798 \times 100 / ((10758.05 \times (100-3.3)) = \text{INR } 3.001/\text{kWh}$

So, it can be observed from the above example that the energy charge for the month works out to be INR 3.001/kWh based on approved normative parameters.

The above calculations are for illustration purpose only. The actual billing every month shall be based on the formula prescribed in the prevalent CERC Tariff Regulations based on actual values for gross calorific value and price of gas and normative values of gross station heat rate and auxiliary power consumption.

6. Chapter 6: Annual Fixed Cost (AFC) and other charges for FY 2023-24

In view of the workings in the previous sections, the Commission now approves the following:

- Annual Fixed Cost (AFC) at INR 36.66 Cr for FY 2023-24.
- Normative Annual Plant Load Factor (NAPLF) for the purpose of the calculation of Incentive and the formula for computation of energy charge (net) to be billed per month shall be considered as per the prevalent CERC Tariff Regulations.
- Recovery of a gap of INR 0.43 Cr on account of True-up of FY 2020-21 to Electricity Department, Puducherry (PED) in six equal monthly instalments starting within three months from the date of the Tariff Order.
- In addition to the charges approved above, the Commission also allows recovery of expenses pertaining to regulatory compliance (fees paid to the Commission towards filing of Tariff Petition for the 3rd Control Period and related publication expenses) from the beneficiary in twelve equal monthly instalments.

7. Chapter 7: Determination of AFC for FY 2024-25

7.1. Background

The Petitioner has claimed AFC and determination of tariff for FY 2024-25 along with this petition.

7.2. Applicable Regulations for Determination of AFC

The Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Generation, Transmission and Distribution Multi Year Tariff) Regulations, 2021 provides as under:

“ 12 Annual Performance Review, Truing-up and tariff determination during the Control Period

12.1 The Generating Company, Transmission Licensee and Distribution Licensee shall be subject to annual performance review and truing up of expenses and revenue during the Control Period in accordance with these Regulations.

12.2 The Generating Company, Transmission Licensee and Distribution Licensee shall file an application for the annual performance review of the current year, truing up of the previous Year or the Year for which the audited accounts are available and determination of tariff for the ensuing Year on or before 30th November of each Year, in formats specified by the Commission from time to time :

Provided that the Generating Company, Transmission Licensee or Distribution Licensee, as the case may be, shall submit to the Commission information in such form as may be specified by the Commission, together with the audited accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges.

12.3 The scope of the annual performance review, truing up and tariff determination shall be a comparison of the performance of the Generating Company, Transmission Licensee or Distribution Licensee with the approved forecast of Aggregate Revenue Requirement and Expected Revenue from Tariff and Charges and shall comprise of the following:

*a) **True-up:** a comparison of the audited financial and actual operational performance of the Applicant for the Financial Year for which the true up is being carried out with the approved forecast for such previous Financial Year, subject to the prudence check;*

*b) **Annual Performance Review:** a comparison of the revised estimates of performance targets of the Applicant for the current Financial Year with the approved forecast in the Tariff Order corresponding to the Control Period for the current Financial Year subject to prudence check;*

*c) **Tariff determination** for the ensuing Year of the Control Period based on the revised forecast of the Aggregate Revenue Requirement for the Year;*

d) Review of compliance with directives issued by the Commission from time to time;

e) Other relevant details, if any.

12.4

12.5.....”

7.3. Approach for determination of AFC for FY 2024-25

Regulation quoted above require the petition for determination of tariff to be made for the ensuing year of the control period. However, the Petitioner has filed for determination of tariff for both years 2023-24 and 2024-25 of the 3rd MYT Control Period. Further, the CERC Tariff Regulations 2019 are applicable for the control period FY 2019-20 to FY 2023-24 and CERC is yet to come out the tariff regulations for the upcoming control period including FY 2024-25.

Therefore, the Commission is not carrying out the determination of tariff exercise for FY 2024-25 in the current Order. Further, the Commission directs the Petitioner to submit the petition for determination of tariff for FY 2024-25 along with the true-up petitions upto FY 2022-23.

8. Chapter 8: Directives

The Commission directs the utility to comply with the directions mentioned below in the given timeframe, failing which the Commission shall be constrained to take appropriate action under the Electricity Act 2003 and the Regulations framed by JERC.

8.1. New Directive(s) issued in this Order

8.1.1. Filing of the True-up Petitions upto FY 2022-23

Directive: The Commission directs the Petitioner to complete the filing of the True-up Petition up to FY 2022-23 by 30th November 2023.

8.1.2. Details of PAF

Directive: The Petitioner is directed to maintain the details of backing down of the power plant as may be required by PED, actual shutdown schedules and other uncontrollable factors affecting the operations of the plant and submit the same for review of the Commission along with the filing of the True-up of the respective years.

Annexures

Annexure 1: List of Stakeholder(s)

The following is the list of the participants in Public Hearing conducted on 24th February 2023:

Table 29: List of participant(s) in Public Hearing

S. No.	Name of Stakeholder
1	T. Chanemougam, Superintending Engineer-cum-Head of the Department, Electricity Department, Puducherry.

