



## **TARIFF ORDER**

True-up of FY 2015-16 and Approval of Aggregate Revenue Requirement (ARR)  
and Determination of Tariff for FY 2018-19

*Petition No. 246/2017*

*For*

**Puducherry Power Corporation Limited (PPCL)**

*16<sup>th</sup> March 2018*

**JOINT ELECTRICITY REGULATORY COMMISSION**  
(For the State of Goa and Union Territories)

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# *List of Abbreviations*

<b>Abbreviation</b>	<b>Full form</b>
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
EDP	Electricity Department, Puducherry
FC	Fixed charge
FY	Financial Year
GFA	Gross Fixed Assets
GCV	Gross Calorific Value
MU	Million Unit
MW	Mega Watt
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

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

QUORUM

Sh. M. K. Goel (Chairperson)

Smt. Neerja Mathur (Member)

Petition No. 246/2017

In the matter of

Approval of the True-up of FY 2015-16 and Approval of Aggregate Revenue Requirements (ARR) and Determination of Tariff for FY 2018-19.

And in the matter of

Puducherry Power Corporation Limited (PPCL) .....Petitioner

**ORDER**

Dated: 16<sup>th</sup> March 2018

- a) 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 of the True-up of FY 2015-16 and approval of Aggregate Revenue Requirements (ARR) and determination of tariff for FY 2018-19.
- b) The Commission examined the information provided in the Petition and requisitioned further information/clarifications from the Petitioner on the data gaps observed to take a prudent view of the Petition. The Commission also held a Technical Validation Session with the Petitioner to determine the sufficiency of requisitioned information. Further, suggestions/comments/objections were invited from the stakeholders, for which a Public Hearing was held and the comments of various stakeholders were heard. The schedule of activities performed in the course of this quasi-judicial process are given below:

Particular	Details
Date of Admission	07.12.2017
Technical Validation Session	14.12.2017
Public Hearing	27.12.2017

- c) The approved tariff for FY 2018-19 shall come into force from 1<sup>st</sup> April 2018 and shall remain valid until further Orders of the Commission.
- d) All existing provisions that are not modified by this Order shall continue to be in force.
- e) The Commission approves the capacity (fixed) charge and energy charge for FY 2018-19 and other charges for PPCL Gas Power Station at Karaikal as given below:
- i. Annual Fixed Charge (AFC) at Rs 29.83 Cr for FY 2018-19
  - ii. The capacity charge (fixed cost) per month to be billed shall be calculated as per Regulation 30 of the CERC Tariff Regulations 2014

iii. The Incentive shall be governed as per Regulation 30 (4) which is reproduced here below.

*“Incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in Regulation 36 (B).”*

iv. Normative Annual Plant Load Factor (NAPLF) will be considered at 85% for the purpose of the incentive calculation as per Regulation 36 (B) (a) of the CERC Tariff Regulations 2014.

v. The energy charge (net) to be billed per month shall be based on the unit energy rate calculated based on the formula provided in Section 4.5 of this Order.

vi. Billing of additional claim of Rs 5.71 Cr on account of True-up of FY 2015-16 from EDP in six equal monthly installments starting within three months from the date of the Tariff Order.

vii. 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 2018-19 and related publication expenses) from the beneficiary in twelve equal monthly installments.

f) Ordered as above, read with the attached document giving detailed reasons, grounds and conditions.

-Sd-

**Neerja Mathur**  
**(Member)**

-Sd-

**M.K.Goel**  
**(Chairperson)**

Joint Electricity Regulatory Commission  
(For the State of Goa and Union Territories)

Place: Gurugram

Date: 16<sup>th</sup> March 2018

(Certified Copy)

**Keerti Tewari, Secretary**

# 1. Chapter 1: Introduction

## 1.1 About 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 “Joint Electricity Regulatory Commission for the Union Territories” vide notification no. 23/52/2003-R&R dated 2<sup>nd</sup> 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 “JERC” or “the Commission”) vide notification no. 23/52/2003-R&R (Vol. II) dated 30<sup>th</sup> May, 2008.

JERC is an autonomous body responsible for Regulation of the Power Sector in the State of Goa and Union Territories of Andaman & Nicobar Islands, Lakshadweep Island, Chandigarh, Daman & Diu, Dadra & Nagar Haveli and Puducherry, consisting of generation, transmission, distribution, trading and use of electricity. Its primary objectives include taking measures conducive to the development of the electricity industry, promoting competition therein, protecting interest of consumers and ensuring 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. Further, it is a “Generating Company”, as defined under sub-section 28 of section 2 of the Electricity Act, 2003.

PPCL was incorporated on 30<sup>th</sup> 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 its capacity, commercial & operation data etc. are as given in the table below:

**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 <sup>rd</sup> 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 3<sup>rd</sup> January 2000 and is supplying power to Electricity Department Puducherry (EDP) under a PPA signed with them on 25<sup>th</sup> 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, in exercise of the powers conferred upon it by the Electricity Act, 2003 notified JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 for determination of tariff (hereinafter referred to as the ‘JERC Tariff Regulations 2009’).

As per provisions of Clause 19 of the JERC Tariff Regulations 2009 and amendments thereon, the Commission, while determining the cost of generation of each thermal/gas/hydro-electric generating stations located within the



State, shall be guided, as far as feasible, by the principles and methodologies of CERC, as amended from time to time.

## ***1.4 Filing and Admission of the Present Petition***

Puducherry Power Corporation Limited filed the Petition for the True-up for FY 2015-16 and determination of the Aggregate Revenue Requirement (ARR) and determination of tariff for FY 2018-19, which was admitted on 7<sup>th</sup> December 2017 and numbered as Petition No. 246/2017. The Petition was scrutinized in terms of JERC (Conduct of Business) Regulations, 2009. On preliminary scrutiny of the Petition, certain data gaps were observed for which the reply of the Petitioner was sought. A letter indicating gaps in the information as well as the required documentation was sent to the Petitioner on 8<sup>th</sup> December 2017.

## ***1.5 Interaction with the Petitioner***

A preliminary scrutiny/analysis of the Petition submitted by the Petitioner was conducted and certain deficiencies were observed. Accordingly, deficiency notes were issued to the Petitioner. Further, additional information/clarifications/justifications were solicited from the Petitioner as and when required. The Petitioner submitted additional information through various letters, as listed in the table below.

The Commission conducted the Technical Validation Session (TVS) with the Petitioner at the Commission's office in Gurugram, during which discrepancies in the Petition were discussed 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 date:

**Table 2: Timelines w.r.t the Petition for True-up of FY 2015-16 and ARR of FY 2018-19**

<b>S.No.</b>	<b>Subject</b>	<b>Date</b>
1	Issue of First Discrepancy Note	08.12.2017
2	Reply received from Petitioner	13.12.2017
3	Technical Validation Session (TVS)	14.12.2017
4	Clarifications received from the Petitioner on TVS	22.12.2017
5	Public Hearing	27.12.2017
6	Additional information sought from the Petitioner	24.02.2018
7	Additional information sought from the Petitioner	05.03.2018
8	Additional information sought from the Petitioner	08.03.2018

## ***1.6 Public Hearing***

The Public Hearing was held on 27<sup>th</sup> December 2017 from 11:00 am onwards at "PMSSS Hall, Laporte Street" at Puducherry to seek views of concerned stakeholders on the True-up Petition for FY 2015-16 and ARR and determination of tariff Petition for FY 2018-19. However, there were no comments on the Petitions in the Public Hearing.

## ***1.7 Notice for Public Hearing***

The Commission 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 to be conducted by the Commission.

**Table 3: Details of Public Notice published by the Commission**

S.No.	Date	Newspaper	Place of Publication
First Public Notices			
1	12.12.2017	The Daily Thanthi (Tamil)	Puducherry & Karaikal
2	13.12.2017	The Hindu (English)	Chennai
3	13.12.2017	The Hindu (English)	Vizag
4	13.12.2017	The Hindu (English)	Kochi
5	14.12.2017	Andhra Jyoti (Telegu)	Yanam
6	14.12.2017	Mathrubhumi (Malayalam)	Mahe
Second Public Notices			
1	23.12.2017	The Hindu (English)	Chennai & trichy
2	23.12.2017	The Hindu (English)	Vizag
3	23.12.2017	The Hindu (English)	Kochi
4	24.12.2017	The Daily Thanthi (Tamil)	Puducherry & Karaikal
5	24.12.2017	The Maalai Malar (Tamil)	Puducherry
6	24.12.2017	Andhra Jyoti (Telugu)	Yanam
7	24.12.2017	Mathrubhumi (Malayalam)	Mahe

The Public Notices were also published by the Petitioner in the following newspapers for inviting objections/suggestions from the stakeholders on the Tariff Petition:

**Table 4: Details of Public Notice published by the Petitioner**

S.No.	Date	Newspaper	Place of Publication
1	09.12.2017	The New Indian Express (English)	Chennai
2	09.12.2017	The New Indian Express (English)	Trichy
3	09.12.2017	The New Indian Express (English)	Kozikode
4	09.12.2017	The New Indian Express (English)	Vijayawada
5	09.12.2017	The Daily Thanthi (Tamil)	Puducherry & Tanjore
6	09.12.2017	Dinakaran (Tamil)	Puducherry & Trichy
7	14.12.2017	Janamitra (Telugu)	Yanam
8	16.12.2017	Kerala Kaumudi (Malayalam)	Mahe

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## ***2. Chapter 2: Summary of Suggestions/Objections 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 publish the same in the newspapers in an abridged form in the given format duly inviting comments/objections from the public as per the provisions of the JERC Tariff Regulations 2009.

The Public Hearing was held on 27<sup>th</sup> December 2017 at “PMSSS Hall, Laporte street” in Puducherry for Petition on True-up for FY 2015-16 and Petition on ARR and determination of tariff for FY 2018-19. During the Public Hearing, all participants were given an opportunity to present their views/suggestions in respect of the Petition.

The list of the participants is attached as [Annexure 1](#) to this Order.

### ***2.2 Suggestions/ Objections, Response of the Petitioner and Commission's Comments***

There were no specific comments w.r.t. the Petition on True-up for FY 2015-16 and the Petition on ARR and determination of tariff for FY 2018-19 of Puducherry Power Corporation Limited.

## 3. Chapter 3: True-up for FY 2015-16

### 3.1 Regulations

The True-up for FY 2015-16 is being carried out as per the provisions of Regulations 8 of the JERC Tariff Regulation 2009. The said Regulation specifies as under:

*“(8) Review and True Up*

- 1) *The Commission shall undertake a review along with the next Tariff Order of the expenses and revenues approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called ‘Review’.*
- 2) *(i) After audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the audited accounts. This exercise with reference to audited accounts shall be called ‘Truing Up’.*  
*(ii) The Truing Up for any year will ordinarily not be considered after more than one year of ‘Review’.*
- 3) *The revenue gap of the ensuing year shall be adjusted as a result of review and truing up exercises.*
- 4) *While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings.*
- 5) *For any revision in approvals, the licensee would be required to satisfy the Commission that the revision is necessary due to conditions beyond its control.*
- 6) *In case additional supply is required to be made to any particular category, the licensee may, any time during the year make an application to the Commission for its approval. The application will demonstrate the need for such change of consumer mix and additional supply of power and also indicate the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power.*
- 7) *The Commission may consider granting approval to such proposals provided the cost of additional supply is ordinarily met by the beneficiary category.”*

The Commission had approved tariff for FY 2015-16 vide its Order dated 31<sup>st</sup> March 2015. The Commission in its Tariff Order approved AFC of Rs 25.88 Cr for FY 2015-16 based on the capital cost of Rs 150.37 Cr.

The Petitioner has now submitted a Petition for True-up of the tariff of FY 2015-16. The audited accounts have also been submitted along with the True-up Petition and after due prudence check of the fuel bills and power sale bills raised to the beneficiary (ED-Puducherry), the Commission has carried out the True-up for the year.

As a part of the True-up exercise, the Commission has reviewed the variations between approvals and actuals of income and expenditure for FY 2015-16 (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.

The Commission, for the purpose of the True-up for FY 2015-16, has considered the CERC Tariff Regulations for the period FY 2014-19 issued by CERC vide notification no. L-1/144/2013/CERC dated 21<sup>st</sup> February 2014 (herein referred to as CERC Tariff Regulations 2014).

## **3.2 Operational Parameters**

### **3.2.1 Normative Annual Plant Availability Factor (NAPAF)**

#### **Petitioner's Submission**

As regards the Normative Plant Availability Factor (NAPAF), considering Hon'ble APTEL judgment on appeal no. 41/2012 dt. 21.11.2012, the Hon'ble Commission in its Order has also approved NAPAF 85%. Computation of revised tariff is also done with 85% NAPAF.

#### **Commission's Analysis**

The Commission in its Order dated 31<sup>st</sup> March 2015, had approved the NAPAF of 85% as per CERC Tariff Regulations 2014. NAPAF of 85% is in line with the judgment of the Hon'ble APTEL dated 21<sup>st</sup> November 2012 in Appeal No. 41/2012. Therefore, NAPAF of 85% is retained by the Commission for FY 2015-16.

**Therefore, the Commission approves NAPAF at 85% for FY 2015-16.**

### **3.2.2 Auxiliary Power Consumption (APC)**

#### **Petitioner's Submission**

The Petitioner has considered an auxiliary power consumption of 5.50% for calculation of revised tariff for FY 2015-16.

#### **Commission's Analysis**

The Commission in its Tariff Order dated 31<sup>st</sup> March 2015 for year 2015-16 had approved auxiliary power consumption of 5%. The same was allowed considering the norms of auxiliary power consumption mentioned in Regulation 36 (E) (c) of the CERC Tariff Regulations 2014 for small gas turbine generating stations and the CEA guidelines for plants with electric-driven gas booster compressors.

The issue relating to auxiliary power consumption was settled by the Hon'ble APTEL in its judgment dated 21<sup>st</sup> November 2012 in Appeal No. 41/2012 in the matter of Puducherry Power Corporation Limited vs. Joint Electricity Regulatory Commission and Electricity Department, Govt. of Puducherry. The Hon'ble APTEL had upheld the analysis of the Commission and ordered that the auxiliary power consumption should be approved as per CERC Regulations and CEA guidelines.

In accordance with the same, the Commission has decided to retain the auxiliary power consumption norm at 5% of gross generation.

**Therefore, the Commission approves the APC at 5% for FY 2015-16.**

### **3.2.3 Gross Station Heat Rate (GSHR)**

#### **Petitioner's Submission**

The Petitioner has considered the gross station heat rate of 2646 kcal/kWh for FY 2015-16 as per the Commission's Order dated 31<sup>st</sup> March 2015.

#### **Commission's Analysis**

The Commission had approved GSHR of 2646 kcal/kWh in its Tariff Order dated 31<sup>st</sup> March 2015. This was based on analysis done by the Commission in the previous Tariff Order, dated 25<sup>th</sup> April 2014, after elaborately analysing the past actuals of the heat rate for 12 years and the CERC Order dated 07<sup>th</sup> June 2012 on NEEPCO's Petition for revising the GHR 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 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, 2014, the normative GSHR comes to 2,520 \* 1.05 = 2,646 kcal/kWh.

Considering the same, the Commission decides to retain the station heat rate of 2646 kcal/kWh.

**Therefore, the Commission approves the GSHR for the PPCL gas station at 2,646 kcal/kWh for FY 2015-16.**

### **3.3 Annual Fixed Charge (AFC) for True-up of FY 2015-16**

The following components were considered as part of the fixed charge for the year 2015-16:

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

The components of the fixed charge mentioned above are discussed in detail in the following paragraphs. The Commission has arrived at the revised Annual Fixed Charge (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 2015-16.

#### **3.3.1 Capital Cost for FY 2015-16**

##### **Petitioner's Submission**

The capital cost considered in the present Petition is based on the approved capital cost of Rs 150.92 Cr during True-up for FY 2014-15 as per Hon'ble Commission Order dated 31<sup>st</sup> March 2017.

##### **Commission's Analysis**

The Commission in the earlier Tariff Order dated 31<sup>st</sup> March 2015, approved an opening capital cost of Rs150.37 Cr for FY 2015-16 and no additional capitalization. However, in its Tariff Order dated 31<sup>st</sup> March 2017 for the True-up of 2014-15 (and the ARR of 2017-18), the Commission approved Rs 146.45 Cr as the opening capital cost, Rs 4.47 Cr as additional capitalisation and Rs 150.92 Cr as the closing capital cost of FY 2014-15. Considering the same, the Commission approves an opening capital cost of Rs 150.92 for FY 2015-16. The Petitioner had not carried out any additional capitalization in the year 2015-16.

**Accordingly, the Commission approves Rs 150.92 Cr as the opening capital cost and no additional capitalization for FY 2015-16.**

#### **3.3.2 Depreciation**

##### **Petitioner's Submission**

The depreciation has been computed on the closing capital cost of Rs 150.37 Cr for the True-up of FY 2015-16. The Petitioner has excluded the cost of freehold land of Rs 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 FY 2014-15 is considered as Rs 124.94 Cr. Accordingly the depreciation for the year has been considered as Rs 0.33 Cr by the Petitioner.

##### **Commission's Analysis**

The Commission has considered the opening capital cost of Rs 150.92 Cr and no additional capitalisation for FY 2015-16. The cost of the freehold land of Rs 7.93 Cr has been excluded for depreciation purpose. The cumulative depreciation recovered up to FY 2014-15 is Rs 125.04 Cr. As the plant has already completed 12 years from the date of commercial operation and FY 2015-16 was the its 15<sup>th</sup> year of operation, the remaining depreciable value of the asset has been spread over the next 10 years of the useful life, as per the CERC Tariff Regulations 2014.

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 2014 and accordingly the depreciation for the True-up of FY 2015-16 works out as Rs 0.37 Cr.

The calculation of the same is as shown in the table below:

**Table 5: Depreciation approved by the Commission for True-up of FY 2015-16 (In Rs Cr)**

S. No	Particulars	Approved in Tariff Order 2015-16	Petitioner's Submission (True-up)	Approved by Commission for 2015-16 (True-up)
1	Closing Capital Cost	150.37	150.37	150.92
2	Cost of Freehold (FH) Land	7.93	7.93	7.93
3	Capital cost excluding FH Land	142.44	142.44	142.99
4	Cap on cumulative depreciation	128.20	128.20	128.69
5	Cumulative Depreciation upto the previous year	124.94	124.94	125.04
6	Balance depreciation to be recovered	3.26	3.26	3.65
7	Balance useful Life (years)	10	10	10
<b>8</b>	<b>Depreciation for the year</b>	<b>0.33</b>	<b>0.33</b>	<b>0.37</b>

Therefore, the Commission approves depreciation of Rs 0.37 Cr for FY 2015-16.

### **3.3.3 Interest Charge on Loan**

#### **Petitioner's Submission**

The Petitioner has claimed NIL interest charges for the True-up of FY 2015-16.

#### **Commission's Analysis**

On the basis of the average capital cost of Rs 150.92 Cr for FY 2015-16, the gross normative loan is Rs 105.64 Cr (70% of the approved average capital cost of Rs 150.92 Cr).

As per the CERC Tariff Regulations 2014, 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 table below:

**Table 6: Interest Charges approved by the Commission for True-up of FY 2015-16 (In Rs Cr)**

S. No	Particulars	Approved in Tariff Order 2015-16	Petitioner's Submission (True-up)	Approved by Commission for 2015-16 (True-up)
1	Average capital cost for the year	150.07	150.37	150.92
2	Normative loan at 70% of average capital cost	105.05	105.26	105.64
3	Cumulative repayment up to previous year	105.05	105.26	105.64
4	Average net loan outstanding	0.00	0.00	0.00
5	Rate of interest (%)	13.36%	13.36%	13.36%
<b>6</b>	<b>Interest on Normative Loan</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

The Commission, therefore, approves the interest charges on normative loan as NIL for the True-up of FY 2015-16.

### 3.3.4 Return on Equity

#### Petitioner's Submission

The Petitioner has submitted that it be allowed pre-tax rate of ROE as 23.48% (base rate of return of 15.5% grossed-up by the corporate tax rate of 33.99%). Further, the Petitioner has submitted that "The Corporation paid a sum of Rs 1.58 Cr for FY 2015-16 as tax to the IT Department". Considering a normative equity capital of 30% of capital cost of Rs 150.37 Cr, the Petitioner has claimed a Return on Equity of Rs 10.57 Cr.

#### Commission's Analysis

As per Regulation 25 of the CERC Tariff Regulations 2014, Tax on Return on Equity:

- (1) **The base rate of return on equity as allowed by the Commission under Regulation 24 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 by the concerned generating company or the transmission licensee, as the case may be. [“The actual tax on income from other business streams including deferred tax liability (i.e. income on business other than business of generation or transmission, as the case may be) shall not be considered for the calculation of effective tax rate”.]**
- (2) .....
- (3) **The generating company or the transmission licensee, as the case may be, shall True-up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long term transmission customers/DICs as the case may be on year to year basis.”**

Accordingly, the Commission calculated the effective tax rate from the audited financial statements provided by the Petitioner, which works out to be 31.73%. The pre-tax rate of return on equity for FY 2015-16 therefore is 22.70% (15.50% grossed-up with the effective tax rate of 31.73%). 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 2015-16 (In Rs Cr)**

S. No	Particulars	Approved in Tariff Order 2015-16	Petitioner's Submission (True-up)	Approved by Commission for 2015-16 (True-up)
1	Equity capital	45.02	45.11	45.28
2	Rate of return on equity (%)	15.50%	15.50%	15.50%
3	Effective rate of corporate tax (%)	33.99%	33.99%	31.73%
4	Effective rate of return on equity (%)	23.48%	23.48%	22.70%
5	<b>Return on Equity</b>	<b>10.57</b>	<b>10.57</b>	<b>10.28</b>

Therefore, the Commission approves return on equity of Rs 10.28 Cr for True-up of FY 2015-16.

### 3.3.5 Operation and Maintenance (O&M) Expenses

#### Petitioner's Submission

The Petitioner submitted that the Operation and Maintenance expenses element of Fixed/Capacity charges has been taken as 35.70 lac/MW as specified by the CERC for small gas turbine for the year of 2015-16. Consequently, the Petitioner has claimed Rs 11.60 Cr as O&M expenses. Further, the Petitioner has requested a claim of Rs 5.31 Cr incurred towards procurement of Hot Gas Path Inspection spares for Frame-V Gas turbine and Rs 1.03 Cr for hot gas path inspection.



PPCL has also claimed a sum of Rs 48.06 lakhs in connection with replacement of corroded structure/pipeline, etc. In support of the claim, the Petitioner submitted that “Out of total expenditure of Rs 2.30 Cr sanctioned towards replacement of corroded structure/pipeline, etc., the Corporation had paid a sum of Rs 87.43 lakhs and Rs 94.25 lakhs totaling Rs 1.82 Cr of which, the Executive Engineer (B&R), Public Works Department, Karaikal has given utilization certificate for a sum of Rs 1.78 Cr upto 31.10.2016 and the Corporation has accounted Rs 1.56 Cr upto 31.12.2015 upto the financial year 2015-16 as per the Utilization certificate issued by the PWD, Karaikal. In this connection, it is submitted to the Hon’ble Commission that, the Commission has allowed to claim a sum of Rs 87.00 lakhs during the True-up Petition of 2013-14 and a sum of Rs 21.00 lakhs during the True-up Petition of 2014-15 and the balance amount of Rs 0.48 Cr (Rs 1.56 Cr – Rs 0.87 Cr – Rs 0.21 Cr) has to be claimed during the True-up Petition 2015-16.”

Further, the Petitioner has requested for allowance of additional expenses of Rs 0.22 Cr towards enhanced insurance premium payment compared to last year. Accordingly, the Petitioner has claimed total O&M expenses Rs 18.10 Cr for FY 2015-16.

### Commission’s Analysis

As per Regulation 29 (c) of the CERC Tariff Regulations 2014, the O&M expenses for small gas turbine based generating plants (in the capacity range of 50 MW or below) for FY 2015-16 are to be considered as Rs 35.70 lakh/MW. Accordingly, the normative O&M expenses for the 32.5 MW gas plant of PPCL have been worked out as Rs 11.60 Cr ( $35.70 \times 32.5 / 100 = 11.60$ ) for the purpose of the True-up of FY 2015-16.

The Commission has examined the claim of the Petitioner for an additional O&M expenditure of Rs 0.48 Cr towards replacement of damaged/corroded pipe rack structure. The Petitioner had submitted the Order of Inspector of Factories, Karaikal dated 6<sup>th</sup> November 2012 along with Petition for True-up of FY 2013-14 necessitating the replacement of damaged/corroded pipe rack structure. The Commission had allowed an amount of Rs 87.43 lakhs for the said activity in the True-up Order of 2013-14 (dated 23<sup>rd</sup> May 2016). Further, the Commission allowed Rs 21.45 lakhs for replacement of pipe rack in True-up Order of 2014-15 (dated 31<sup>st</sup> March 2017). The Petitioner has accounted for Rs 1.56 Cr upto 31<sup>st</sup> March 2015 towards the said activity. The Commission has gone through the utilization certificate submitted by the Petitioner and found the same to be in order. Accordingly, the Commission approves Rs 0.47 Cr (Rs 1.56 Cr – 0.87 Cr – 0.21 Cr) as additional expense towards replacement of damaged/corroded pipe rack structure during FY 2015-16.

Further, the Commission has gone through the Work Order and invoices submitted by the Petitioner for procurement of hot gas path inspection spares and execution of the inspection work. The Petitioner paid an amount of Rs 5.27 Cr for procurement of spares for hot gas path inspection and Rs 1.03 Cr for inspection work to M/S BHEL GE Gas Turbine Services Pvt. Ltd. Accordingly, the Commission allows the amount as one-time expenditure to the Petitioner for FY 2015-16.

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 Rs 0.22 Cr towards insurance premium cannot be allowed to the Petitioner.

**Table 8: O&M expenses approved by the Commission for True-up of FY 2015-16 (In Rs Cr)**

S. No	Particulars	Approved in Tariff Order 2015-16	Petitioner's Submission (True-up)	Approved by Commission for 2015-16 (True-up)
1	CERC norms for O&M expenses (lakhs/MW)	35.7	35.7	35.7
2	O&M expenses as per CERC norms	11.60	11.60	11.60
3	Additional O&M expenses	-	7.04	6.77
	Replacement of damaged / corroded pipe rack structure	-	0.48	0.47
	Procurement of Hot Gas Path Inspection spares	-	5.31	5.27
	Hot Gas Path Inspection Charges	-	1.03	1.03
	Additional Insurance premium	-	0.22	-
<b>4</b>	<b>Total O&amp;M expenses</b>	<b>11.60</b>	<b>18.10</b>	<b>18.37</b>

Therefore, the Commission approves the normative O&M expenses of Rs 11.60 Cr for the True-up of FY 2015-16. Additionally, one-time O&M expenditure of Rs 6.77 Cr is approved by the Commission for FY 2015-16.

### 3.3.6 Interest on Working Capital

#### Petitioner's Submission

The Petitioner has claimed interest on Working Capital as Rs 3.38 Cr for year 2015-16. For the computation of the same, the Petitioner has considered the rate of interest as 13.50%.

#### Commission's Analysis

As per Regulation 28 (b) of the CERC Tariff Regulations, 2014, the working capital of the gas turbine generating station is to be considered as under:

- i. Fuel cost of one month (gas) at NAPAF
- ii. Maintenance spares at 30% of O&M expenses
- iii. Receivables equivalent to two months 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 28 (3):

*"Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1st April, 2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 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 CERC Tariff Regulations 2014 as follows:

*"Bank Rate means the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points."*

Accordingly, the Commission has considered a base rate of 10.00% (as on 1st April 2015) and arrived at the bank rate of 13.50% (10.00% + 3.50%) for computation of the interest on working capital for FY 2015-16.

The energy charges considered while working out the working capital are based on average GCV of gas and landed cost of gas for the period from May 2015 and March 2016. Further, normative generation at a NAPAF of 85% is considered for calculation of the cost of gas for the purpose of working capital.

The Commission has considered the working capital and the interest thereon as per the Regulations mentioned above, and arrived at the interest on working capital of Rs 3.84 Cr.

The computation of the interest charges is as below:

**Table 9: Interest on working capital approved by the Commission for True-up of FY 2015-16 (In Rs Cr)**

S. No	Particulars	Approved in Tariff Order 2015-16	Petitioner's Submission (True-up)	Approved by Commission for 2015-16 (True-up)
1	Cost of gas (one month)	5.43	5.79	6.17
2	Maintenance spares (30% of O&M)	3.48	5.43	3.48 *
3	Receivables (two months)	15.18	16.98	17.83
4	O&M expenses (one month)	0.97	1.51	0.97 *
5	Total Working Capital	25.06	25.06	28.45
6	Rate of Interest (%)	13.50%	13.50%	13.50%
7	<b>Interest on Working Capital</b>	<b>3.38</b>	<b>3.38</b>	<b>3.84</b>

\* The additional one-time O&M expenditure of Rs 6.77 Cr allowed under the sub-head of 'O&M expenses' has not been considered for the computation of the working capital requirement for the year.

Therefore, the Commission approves interest on Working Capital of Rs 3.84 Cr for the True-up of FY 2015-16.

### 3.3.7 Differential Annual Fixed Charge (AFC) approved during the True-up of FY 2015-16

The revised AFC approved by the Commission vis-à-vis that submitted by the Petitioner for FY 2015-16 is as below:

**Table 10: Revised Annual Fixed Charges approved by the Commission for True-up of FY 2015-16 (In Rs Cr)**

S. No	Particulars	Approved in Tariff Order 2015-16	Petitioner's Submission (True-up)	Approved by Commission for 2015-16 (True-up)
1	Depreciation	0.33	0.33	0.37
2	Interest on Loan	0.00	0.00	0.00
3	Interest on Working Capital	3.38	3.38	3.84
4	Operation and Maintenance Expenses	11.60	18.10	18.37 *
5	Return on Equity	10.57	10.57	10.28
<b>6</b>	<b>Annual Fixed Charges</b>	<b>25.88</b>	<b>32.38</b>	<b>32.86</b>

\* The Commission has also allowed additional one-time O&M expenditure of Rs 6.77 Cr.

The Commission in the Tariff Order for FY 2015-16, dated 31<sup>st</sup> March 2015, had approved AFC of Rs 25.88 Cr. The AFC has now been revised to Rs 32.86 Cr for FY 2015-16, based on the True-up exercise carried out by the Commission.

While conducting the prudence check, the Commission has noticed that the Petitioner has been billing the Electricity Department, Puducherry based on a wrong formula and hence had claimed higher capacity charges than its entitlement considering the load factor of the plant. The Commission has re-calculated the capacity charges based on the correct formula as prescribed in the CERC Tariff Regulation 2014. The formula takes into account the actual availability vis-à-vis the normative availability. The Commission has also calculated the revised capacity charges based on the AFC approved in the True-up Order for FY 2015-16.

**Table 11: Differential capacity charges approved by the Commission for True-up of FY 2015-16 (In Rs Cr)**

Month	Capacity charges billed by PPCL during 2015-16 (AFC Rs 25.88 Cr)	Capacity charges eligible to PPCL during 2015-16 (AFC Rs 25.88 Cr)	Capacity charges entitled at AFC approved in True-up Order (AFC Rs 32.86 Cr)	Claim / (Refund)
Apr'15	-	-	-	-
May'15	4.07	2.07	2.62	(1.44)
Jun'15	2.40	2.22	2.82	0.41
Jul'15	2.16	2.26	2.86	0.71
Aug'15	2.16	2.15	2.73	0.58
Sep'15	2.16	2.03	2.58	0.42
Oct'15	2.16	2.19	2.78	0.62

Month	Capacity charges billed by PPCL during 2015-16 (AFC Rs 25.88 Cr)	Capacity charges eligible to PPCL during 2015-16 (AFC Rs 25.88 Cr)	Capacity charges entitled at AFC approved in True-up Order (AFC Rs 32.86 Cr)	Claim / (Refund)
Nov'15	2.16	2.22	2.81	0.66
Dec'15	2.16	2.30	2.92	0.76
Jan'16	2.16	2.19	2.78	0.62
Feb'16	2.16	2.28	2.89	0.73
Mar'16	2.16	2.02	2.56	0.40
<b>Total</b>	<b>25.88</b>	<b>23.91</b>	<b>30.35</b>	<b>4.47</b>

### 3.3.7.1 Carrying Cost on Differential Annual Fixed Charge (AFC)

Regulation 8(13) of the CERC Tariff Regulations 2014 states that:

*“The amount under-recovered or over-recovered, along with simple interest at the rate equal to the bank rate as on 1st April of the respective year, shall be recovered or refunded by the generating company or the transmission licensee, as the case may be, in six equal monthly instalments starting within three months from the date of the Tariff Order issued by the Commission.”*

Accordingly, the Commission has calculated the carrying cost for differential annual fixed charges. The True-up for year 2015-16 should have been carried out in year 2017-18. However, owing to unavailability of audited accounts, the Petitioner did not file the Petition for True-up for year 2015-16 in the year 2017-18. Hence, no carrying cost has been allowed in year 2017-18.

The computation of carrying cost is shown in the table below:

**Table 12: Computation of carrying cost on differential AFC for FY 2018-19 (In Rs Cr)**

Particular	2015-16	2016-17	2017-18	2018-19
Opening balance	-	4.77	-	5.38
Addition/(Reduction)	4.47	-	-	(5.38)
Closing balance	4.47	4.77	-	0.00
Average balance	2.24	4.77	-	2.69
SBI Base rate as on 1st April (%)	10.00%	9.30%	9.10%	8.65%*
Bank Rate (Base Rate + 3.50%)	13.50%	12.80%	12.60%	12.15%
Carrying Cost	0.30	0.61	-	0.33
<b>Closing balance incl. carrying cost</b>	<b>4.77</b>	<b>5.38</b>	<b>-</b>	<b>5.71</b>

\* Base rate as on 1<sup>st</sup> January 2018 has been considered.

**Therefore, the Commission approves a claim of Rs 5.71 Cr as part of the True-up exercise for FY 2015-16, and allows the Petitioner to recover the same from EDP during FY 2018-19 in six equal monthly installments starting within three months from the date of the Tariff Order.**

### 3.4 Variable Charge/ Energy Charge approved for the True-up of FY 2015-16

The Commission, as per its Order dated 31<sup>st</sup> March 2015, had approved the formula on basis of which the variable charge/energy charge would be claimed for FY 2015-16. The formula for the energy charge (per unit basis) accounts for the actual gas cost, actual gross calorific value of the gas, normative auxiliary consumption and normative gross

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station heat rate (normative parameters approved by the Commission for FY 2015-16). The Petitioner has been billing the variable charge/ energy charge for FY 2015-16 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. EDP, for FY 2015-16. 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 amount due to the Petitioner on account of the variable charge/ energy charge during the True-up exercise for the year.**

# 4. Chapter 4: Tariff Determination for FY 2018-19

## 4.1 Regulations

As per provisions of Clause 19 of the JERC Tariff Regulations 2009, the Commission, while determining the cost of generation of thermal/gas/hydro-electric generating stations located within the state, shall be guided, as far as feasible, by the principles and methodologies of CERC, as amended from time to time.

The Commission, for the purpose of calculation of ARR for FY 2018-19, has considered the CERC Tariff Regulations for the period FY 2014-19 issued by CERC vide notification no. L-1/144/2013/CERC dated 21<sup>st</sup> February 2014 (herein referred to as CERC Tariff Regulations 2014).

## 4.2 Operational Parameters

### 4.2.1 Normative Annual Plant Availability Factor (NAPAF)

#### Petitioner's Submission

The Petitioner has requested the Hon'ble Commission to fix the norm for Normative Annual Plant Availability Factor (NAPAF) for the Karaikal station for recovery of full fixed charges in FY 2018-19 at 78% instead of 85% in view of 30 days shutdown required for replacement of Gas turbine compressor stator and rotor blades along with major inspection of the gas turbine.

#### Commission's Analysis

The Commission had approved NAPAF of 85% for FY 2013-14, FY 2014-15, FY 2015-16, FY 2016-17 and FY 2017-18 as per the Tariff Orders of the respective years, in compliance with the judgment of Hon'ble APTEL in Appeal No. 41/2012 on 21<sup>st</sup> November 2012. The Commission also perused the CERC Tariff Regulations 2014 and maintained the NAPAF to be 85% as per Regulation 36 (A) (a).

The Commission observes that these planned maintenances are essential for the life of the plant and is of the view that this particular shutdown can be clubbed with the other routine maintenance shutdowns. Hence, the Commission finds it appropriate to approve the NAPAF of 85% for FY 2018-19.

The Commission will revisit the same at the time of the True-up. The Petitioner is directed to maintain the details of backing down by EDP, 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 FY 2018-19.

**Therefore, the Commission approves NAPAF at 85% for FY 2018-19.**

### 4.2.2 Auxiliary Power Consumption (APC)

#### Petitioner's Submission

The Petitioner has requested the Commission to allow deviation from norms of APC and consider it as per actuals, based on the period from Jun'17 to Sep'17, because the station has electric gas booster compressor pumps. As natural gas is supplied at a lower pressure, i.e. 3-5 kg/ sq.cm. four electric-driven gas booster compressors, each of 300 kW have to run to boost the gas pressure to 17 kg/ Cu.m., resulting in higher APC. The Petitioner submitted that CEA recommends higher auxiliary consumption for plants with electric gas booster pumps. Further, the Petitioner has submitted that the Hon'ble 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 6% for FY 2018-19.

#### Commission's Analysis

The Commission has gone through the submissions made by the Petitioner and considered the auxiliary power consumption as per the norms mentioned in the Regulation 36 (E) (c) of the CERC Tariff Regulations 2014 for gas turbine generating stations as shown below:

1. Combined cycle 2.5%

## 2. Open cycle 1.0%

Further, as per the CEA guidelines, in cases where electric-driven gas booster compressors are part of the auxiliary plant, 2.5% extra auxiliary consumption can be allowed.

The issue has already been settled by the Hon'ble APTEL in its judgment dated 21<sup>st</sup> November 2012 in Appeal No. 41/2012 in the matter of Puducherry Power Corporation Limited vs. Joint Electricity Regulatory Commission and Electricity Department, Govt. of Puducherry. The Hon'ble APTEL had upheld the analysis of the Commission and ordered that the auxiliary power consumption should be approved as per the CERC Regulations and the CEA guidelines.

**Therefore, the Commission approves APC at 2.5% for combined cycle power plants plus additional power consumption limited to 2.5% for electric-driven gas booster pumps. Thus, 5.0% auxiliary power consumption of gross power generation is approved for FY 2018-19.**

## 4.2.3 Gross Station Heat Rate (GSHR)

### Petitioner's Submission

The JERC Tariff Regulations 2009 provide that the norms and parameters of the CERC Tariff Regulations shall be applicable for GSHR. The CERC Regulations provide for determination of station heat rate based on GCV.

The Petitioner has submitted that the station design net heat rate is 2,291 kcal/kWh. A copy of the heat balance diagram for design heat rate has also been enclosed along with the Petition. The gross design heat rate for net station design heat rate of 2,291 kcal/kWh works out to 2520 ( $2291 \times 1.1$ ) 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, 2014, the normative GSHR comes to  $2,520 \times 1.05 = 2,646$  kcal/kWh. The Commission has also approved the GSHR at 2,646 kcal/kWh for FY 2017-18 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 FY 2018-19.

### Commission's Analysis

The Commission had dealt with the issue of fixing the GSHR in the previous Tariff Order, dated 25<sup>th</sup> April 2014, after elaborately analysing the past actuals of the heat rate for 12 years and the CERC Order dated 07<sup>th</sup> June 2012 on NEEPCO's Petition for revising the GHR 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. Similar principle had been applied for approving the GSHR at 2,646 kcal/kWh for FY 2015-16, FY 2016-17 and FY 2017-18.

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 2018-19.

**Therefore, the Commission approves the GSHR for PPCL gas station at 2,646 kcal/kWh for FY 2018-19.**

## 4.3 Variable Cost Parameters for Working Capital

The Commission has prescribed a formula, in line with the CERC Tariff Regulations 2014, for calculating the monthly energy (variable) charge for billing purpose in section 4.5 of this Order. However, in the following paragraphs, variable charges have been computed 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 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.

### 4.3.1 Data for Calculation of Parameters

#### Petitioner's Submission

The Petitioner has considered a weighted average GCV of gas based on data from Apr'17 to Oct'17. Further, the Petitioner considered the data for Jul'17, Aug'17 and Sep'17 for computation of the average cost of gas.

## Commission's Analysis

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

*"The landed cost incurred (taking into account normative transit and handling losses) by the generating company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined shall be considered and no fuel price escalation shall be provided during the tariff period."*

Considering that the Order for approval of ARR and determination of tariff for FY 2018-19 is being released in March 2018, the Commission has considered the latest data available for determining the calorific value and price of gas for working capital. The Petitioner had submitted invoices raised by GAIL for the period from Apr'17 to Oct'17. The Commission directed the Petitioner to submit the latest data available in respect of the fuel cost and GCV. Accordingly, PPCL made an additional submission, furnishing the invoices for Nov'17, Dec'17 and Jan'18. The data for the same has been tabulated below:

**Table 13: Details submitted by Petitioner for computation of weighted average GCV and price of gas for FY 2018-19**

S.No.	Month	Unit	Nov'17	Dec'17	Jan'18
1	Quantity of gas supplied by GAIL	Cu.m	5,720,152	5,988,869	5,624,042
2	Adjustment(+/-) in quantity supplied made by GAIL	Cu.m	-	-	-
3	Gas supplied by GAIL (1+2)	Cu.m	5,720,152	5,988,869	5,624,042
4	Normative Transit & Handling Losses	Cu.m	-	-	-
5	Net Gas Supplied (3-4)	Cu.m	5,720,152	5,988,869	5,624,042
6	Amount charged by the Gas Company	Rs	49,289,329	51,456,519	47,850,741
7	Adjustment(+/-) in amount charged made by Gas Company	Rs	-	-	-
8	Total amount charged (6+7)	Rs	49,289,329	51,456,519	47,850,741
9	Transportation charges by rail / ship / road transport	Rs	-	-	-
10	Adjustment (+/-) in amount charged made by Railways/Transport Company	Rs	-	-	-
11	Demurrage Charges, if any	Rs	-	-	-
12	Cost of diesel in transporting gas through other system, if applicable	Rs	-	-	-
13	Total Transportation Charges (9+/-10-11+12)	Rs	-	-	-
14	Total amount Charged for fuel supplied including Transportation (8+13)	Rs	49,289,329	51,456,519	47,850,741
15	Average GCV of Gas as fired	kcal/Cu.m	10,035.33	10,036.30	10,023.75
16	Average rate of Fuel/1000 Cu.m	Rs/1000 cu.m	8,616.79	8,592.03	8,508.25

## 4.3.2 Weighted Average Gross Calorific Value (GCV) of Gas

### Petitioner's Submission

The Petitioner has considered a weighted average GCV of 10,065.77 kcal/cu.m based on average GCV for period from Apr'17 to Oct'17.

### Commission's Analysis

The Commission has considered average GCV of gas for Nov'17, Dec'17 and Jan'18 to compute the weighted average GCV of gas (weighted by the quantity of gas procured in respective months) for computation of working capital for FY 2018-19.



**Table 14: Computation of weighted average GCV of gas for FY 2018-19**

S.No.	Month	Unit	Nov'17	Dec'17	Jan'18
1	Quantity of gas supplied by GAIL	Cu.m	5,720,152	5,988,869	5,624,042
2	Weighted average GCV of gas as fired	kcal/Cu.m	10,035.33	10,036.30	10,023.75
<b>3</b>	<b>Weighted average GCV of gas</b>	<b>kcal/Cu.m</b>	<b>10,031.91</b>		

The Commission, therefore, considers it appropriate to take GCV of 10,031.91 kcal/Cu.m for purposes of computing the working capital requirement for FY 2018-19.

**Accordingly, the Commission considers the Gross Calorific Value of gas as 10,031.91 kcal/Cu.m for purpose of computation of the fuel cost for the Working Capital requirement for FY 2018-19.**

### 4.3.3 Weighted Average Price of Gas

#### Petitioner's Submission

The Petitioner has considered the cost of gas for Jul'17, Aug'17 and Sep'17 for computation of average cost of gas. This has been considered to arrive at the fuel cost for computing the requirement of working capital for FY 2018-19.

The Petitioner has considered the average price of gas at Rs 7515.47 per 1000 Cu.m for FY 2018-19, based on the months of Jul'17, Aug'17 and Sep'17.

#### Commission's Analysis

The CERC Tariff Regulations 2014 provide for landed cost of fuel to be considered for the three months preceding the first month for which tariff is to be determined. The Commission has accordingly considered fuel bills for period from Nov'17 to Jan'18 for computation of landed cost of fuel.

**Table 15: Computation of weighted average price of gas for FY 2018-19**

S.No.	Month	Unit	Nov'17	Dec'17	Jan'18
1	Quantity of gas supplied by GAIL	Cu.m	5,720,152	5,988,869	5,624,042
2	Weighted average rate of fuel	Rs/1000 cu.m	8,616.79	8,592.03	8,508.25
<b>3</b>	<b>Weighted average price of gas</b>	<b>Rs/1000 cu.m</b>	<b>8,573.01</b>		

The Commission in its analysis considers it appropriate to allow the weighted average price of gas as Rs 8,573.01 per 1000 Cu.m as computed above.

**Accordingly, the Commission considers the weighted average cost of gas at Rs 8,573.01 per 1000 Cu.m for the purpose of computation of fuel cost for working capital requirement for FY 2018-19.**

### 4.3.4 Energy (Variable) Charges for Working Capital requirement for FY 2018-19

Based on the performance and cost parameters as approved in the earlier paragraphs, the fuel cost of PPCL gas station for FY 2018-19 at 85% NAPAF, is worked out as given in the table below:

**Table 16: Variable Charges for Working Capital for FY 2018-19**

S.No.	Particular	Unit	Approved Value
1	Station Heat Rate (A)	kcal/kWh	2646
2	Gross Calorific Value of Gas (B)	kcal/ Cu.m	10,031.91
3	Price of gas (C)	Rs/Cu.m	8.75
4	Fuel Cost /Gross units (D = A*(C/B))	Rs/kWh	2.261
<b>5</b>	<b>Fuel Cost/Net units (E = D/(1-APC))</b>	<b>Rs/kWh</b>	<b>2.380</b>

## **4.4 Annual Fixed Charge (AFC) approved for FY 2018-19**

The following components have been considered as part of the fixed charge for the year 2018-19.

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

These are discussed in detail in the following paragraphs.

### **4.4.1 Capital Cost for FY 2018-19**

#### **Petitioner's Submission**

The Petitioner has proposed the tariff for FY 2018-19 by considering a capital cost of 150.92 Cr based on the capital cost approved by the Commission in its Order dated 31.03.2017. Further, the Petitioner requested the Commission to consider the capital cost of Rs 11.769 Cr for replacement of gas turbine compressor stator and rotor blades.

#### **Commission's Analysis**

The Commission had approved Rs 150.92 Cr as opening capital cost in the Tariff Order dated 31<sup>st</sup> March 2017. Further, the Commission had approved no additional capitalisation in FY 2017-18. Accordingly, the opening capital cost for FY 2018-19 is approved at Rs 150.92 Cr.

The Petitioner has requested an additional capitalization of Rs 11.769 Cr for replacement of compressor stator and rotor blades. The Petitioner had claimed an amount of Rs 9.60 Cr plus taxes in its Tariff Petition for year 2017-18 for the said work. The Petitioner had submitted that:

*"BHEL GE Gas Turbine Services Pvt Ltd (BGGTS) in its inspection report of May 2015 has recommended for replacement of compressor rotor and stator blades along with inlet guide vanes which are to be replaced as a set. Since compressor rotor blades can be taken out only after de-stacking of compressor rotor, the same need to be carried out at an authorized workshop, i.e. in BHEL, Hyderabad. The time duration for dismantling the rotor and sending to BHEL, Hyderabad for replacement of compressor rotor will be 115-120 days whereas if new rotor is purchased and replaced the downtime of the plant will be only 25-30 days.*

*Considering the loss of capacity charges and payment of Minimum Gas Obligation to Fuel supplier, it would be beneficial to PPCL if the rotor is changed. An offer received from BGGTS for supply of un-bucketed unit rotor for Frame 5 Gas Turbine where in the quoted price is Rs 9.60 Cr + taxes. Copy are given in Annexure - C.*

*Recently PPCL's Board has given in principle approval to process the case for procurement of rotor and other Gas Turbine spares by e-tendering and after tendering put the case to Government for approval as for any capital item above Rs50.00 lakhs needs approval of the Government as per the Articles and Memorandum of Association of the Company. Hon'ble Commission has been intimated about the above case for prior approval only."*

The Commission in its analysis stated that:

*"The Commission also considers that the replacement of the rotor which is received from OEM after due balancing is a better option than to replace blades instead as the generation loss during the time of to and fro transportation of the rotor to be refurbished will offset the cost of new rotor."*

The Commission further opined that:

*"In view of above, the Commission has no objection for the replacement of the Compressor rotor and other Gas Turbine spares.*

*The Commission will consider the actual expense (after discovery of actual market price through the process of bidding and adjustment of salvage value of the existing rotor) at the time of True-up as a capital expense, subject to technical validation of this requirement by the competent authority and subsequent investment approval of the Government."*

Considering the fact that the Petitioner has complied with all the requirements, the Commission is of the view that the requested amount of Rs 11.769 Cr can be allowed as an additional expenditure for FY 2018-19. The Commission

has reviewed the government Order in respect to approval of capital expenditure and also the supply order issued by PPCL to M/s. BHEL GE Gas Turbine Services (BGGTS), Hyderabad. The invoices raised by BHEL GE Gas Turbine Services were also verified by the Commission.

**Therefore, the Commission approves an opening capital cost of Rs 150.92 Cr, Rs 11.769 Cr as additional capitalization and closing capital cost of Rs 162.69 Cr for FY 2018-19.**

#### **4.4.2 Depreciation**

##### **Petitioner's Submission**

The Petitioner has projected the depreciation charge for the year at Rs 1.88 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 Regulation 26 of the JERC Tariff Regulations 2009 and CERC Tariff Regulations 2014. The Petitioner also submitted that the station is over 17 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 a closing capital cost of Rs 162.69 Cr for purposes of the tariff determination as described in the previous section. The cost of the freehold land of Rs 7.93 Cr has been excluded for depreciation purpose. The cumulative depreciation recovered up to FY 2017-18 is Rs 126.16 Cr, considering cumulative depreciation of Rs 125.41 Cr up to final True-up of FY 2015-16 and approved depreciation of Rs 0.38 Cr for FY 2016-17 and Rs 0.37 Cr for FY 2017-18 (as approved in their respective Tariff Orders). It is noted that the plant is in its 18th year of commercial operation. In line with the following provision of Regulation 27(5) of the CERC Tariff Regulations 2014, 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. 7 years:

*“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 Rs 7.93 Cr) has been capped at 90% of the capital cost of the asset, and accordingly the depreciation for the year 2018-19 is approved at Rs 1.88 Cr.

**Table 17: Depreciation approved by the Commission for FY 2018-19 (In Rs Cr)**

S. No.	Details	Petitioner's Submission	Approved by the Commission for FY 2018-19
1	Closing capital cost	162.69	162.69
2	Cost of freehold (FH) land	7.93	7.93
3	Capital cost excluding FH Land	154.76	154.76
4	Cap on cumulative depreciation	139.28	139.28
5	Cumulative depreciation upto the previous year	126.11	126.16
6	Balance depreciation to be recovered	13.17	13.12
7	Balance useful life (years)	7	7
<b>8</b>	<b>Depreciation for the year</b>	<b>1.88</b>	<b>1.88</b>

**Therefore, the Commission approves the depreciation at Rs 1.88 Cr for FY 2018-19.**

#### **4.4.3 Interest Charge on Loan**

##### **Petitioner's Submission**

The Petitioner has claimed NIL interest charges for FY 2018-19.

## Commission's Analysis

Regulation 26 of the CERC Tariff Regulations 2014 has been referred to for computing the interest on normative loan. Based on the approved average capital cost of Rs 156.80 Cr, the gross normative loan amount is Rs 109.76 Cr. As per the CERC Tariff Regulations 2014, the repayment is deemed equal to the depreciation amount.

It is observed that the cumulative depreciation recovered so far (up to FY 2017-18) is Rs 126.16 Cr, as also reflected in section 4.4.2 above. The gross normative average loan for FY 2018-19 based on the approved average capital cost of Rs 156.80 Cr is Rs 109.76 Cr. 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 below:

**Table 18: Interest on loan approved by the Commission for FY 2018-19 (In Rs Cr)**

S. No.	Details	Petitioner's Submission	Approved by the Commission for FY 2018-19
1	Average capital cost for the year	156.80	156.80
2	Normative loan at 70% of average capital cost	109.76	109.76
3	Cumulative repayment up to previous year	109.76	109.76
4	Average net loan outstanding	0.00	0.00
5	Rate of interest (%)	12.75%	13.36%
6	<b>Interest on Normative Loan</b>	<b>0.00</b>	<b>0.00</b>

As the Petitioner has not availed actual loans, the rate of interest has been retained at the same level (i.e. 13.36%) as approved by the Commission in the last Order for FY 2017-18.

**The Commission, therefore, approves the interest charges on normative loan as NIL for FY 2018-19.**

### 4.4.4 Return on Equity

#### Petitioner's Submission

In case of instant power station, since the entire capital cost has been funded from the 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 @ 23.481% (base rate of return of 15.5% grossed up by the corporate tax rate of 33.99%) for the year 2018-19 as per Regulation 24 of the Tariff Regulations, 2009 read with CERC Tariff Regulations 2014. Accordingly, the Petitioner has claimed a return on equity of Rs 11.05 Cr.

#### Commission's Analysis

Regulation 24(1) of the JERC Tariff Regulations, 2009 specifies "*Return on Equity shall be computed on the paid up equity capital determined in accordance with Regulation 23 and shall be guided by the CERC Regulations, 2004 as amended by the CERC from time to time*".

Regulation 23 of the JERC Tariff Regulations, 2009 specifies that, for the purpose of determination of tariff, Debt: Equity ratio in case of existing, ongoing as well as new projects shall be 70:30.

Regulation 24(2) of the CERC Regulations, 2014 specifies the rate of return on equity shall be at 15.50% for thermal stations.

Regulation 25 (1) of the CERC Regulations, 2014 specifies "*the base rate of return on equity as allowed by the Commission under Regulation 24 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 capital cost as equity and the rate of return on equity at 15.50% as per CERC Regulations 2014 for FY 2018-19.

Further, the Petitioner has submitted that “The Corporation paid a sum of Rs1,58,04,091/- for FY 2015-16 as tax to the IT Department and the Corporation paid a sum of Rs2,34,37,510 /- for FY 2016-17 as tax to the IT Department”. The applicable income tax rate works out to be 33.06% (tax 30% + surcharge 7% + education cess 3%). Considering, that the Petitioner is expected to make similar profits during the financial year 2018-19, Commission has decided to gross up the rate of return on equity with the applicable tax rate of 33.06%.

**Table 19: Return on Equity approved by the Commission for FY 2018-19 (In Rs Cr)**

S. No.	Details	Petitioner's Submission	Approved by the Commission for FY 2018-19
1	Equity capital (@ 30% of GFA)	47.04	47.04
2	Rate of return on equity (%)	15.50%	15.50%
3	Effective rate of corporate tax (%)	33.99%	33.06%
4	Effective rate of return on equity (%)	23.48%	23.16%
5	<b>Return on Equity</b>	<b>11.05</b>	<b>10.89</b>

The effective rate of return on equity shall be reviewed at the time of ‘True-up of 2018-19’. Accordingly, the Petitioner is directed to provide necessary details at the time of the True-up for calculation of effective tax rate.

**Therefore, the Commission approves a return on equity of Rs 10.89 Cr for FY 2018-19.**

#### **4.4.5 Operation and Maintenance (O&M) Expenses**

##### **Petitioner’s Submission**

The Operation and Maintenance expenses element of Fixed/Capacity charges has been taken as 43.50 lac/MW as specified by the CERC for small gas turbine for the year 2018-19 based on Regulation 27 of the Tariff Regulations 2009 and Regulation 29(1)(c) the applicable CERC Regulations, 2014. Accordingly, the Petitioner has claimed Rs 14.14 Cr towards operation and maintenance expenses for FY 2018-19.

##### **Commission’s Analysis**

The Commission has examined the O&M expenses claimed by the Petitioner. As per Regulation 29(1)(c) of the CERC Tariff Regulations, 2014, the O&M expenses for small gas turbine power generating plants for the tariff period FY 2018-19 are to be considered as Rs 43.50 lakh/MW. Accordingly, the O&M expenses for PPCL (32.5 MW) gas plant for FY 2018-19 have been worked out at Rs 14.14 Cr ( $43.50 \times 32.5 / 100 = 14.14$ ).

**The Commission, therefore, approves a sum of Rs 14.14 Cr towards operation and maintenance expenses for FY 2018-19.**

#### **4.4.6 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 on 1<sup>st</sup> April 2017 as per Regulation 28 (3) of CERC Regulations 2014. The energy charges considered while working out IWC are based on average actual fuel consumption and payments made pertaining the period of July ’17, August ’17 and September’17.

The Petitioner has claimed interest on working capital of Rs 3.06 Cr for FY 2018-19.

##### **Commission’s Analysis**

As per Regulation 28 (3) of the CERC Tariff Regulations 2014, the working capital for a gas turbine generating station shall have the following components:

- i. Fuel cost of one month (Gas) at NAPAF
- ii. Maintenance spares at 30% of O&M expenses specified in Regulation 19

- iii. Receivables equivalent to two months of capacity and energy charge based on the NAPAF
- iv. O&M expenses for one month

The applicable rate of interest for computation of interest on working capital as per Regulation 28 (3) of the CERC Tariff Regulations, 2014 is:

*“Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 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 the base rate of interest as specified by the State Bank of India from time to time or any replacement thereof for the time being in effect plus 350 basis points”*

In accordance with the Regulations, the Commission has considered the base rate of 8.65% (SBI base rate notified on 1<sup>st</sup> January 2018) and arrived at the bank rate of 12.15% (8.65% + 3.50%) for computation of the IWC for FY 2018-19.

The energy charges considered while calculating working capital are based on average actual fuel consumption and payments made in Nov’17, Dec’17 and Jan’18. The weighted average GCV and weighted average cost of gas for calculating the fuel requirement/cost are as discussed in Section 4.3 of this Order. 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 12.15% per annum and arrived at the interest on working capital of Rs 2.92 Cr.

**Table 20: Interest on working capital approved by the Commission for FY 2018-19 (In Rs Cr)**

S. No.	Details	Petitioner's Submission	Approved by the Commission for FY 2018-19
1	Cost of gas (one month)	3.66	4.56
2	Maintenance spares (30% of O&M)	4.24	4.24
3	Receivables (two months)	12.33	14.09
4	O&M expenses (one month)	1.18	1.18
5	Total Working Capital	21.41	24.07
6	Rate of Interest (%)	12.75%	12.15%
7	<b>Interest on Working Capital</b>	<b>3.06</b>	<b>2.92</b>

The Commission, therefore, approves Rs 2.92 Cr as the Interest on Working Capital for FY 2018-19.

#### **4.4.7 Annual Fixed Charge (AFC) approved for FY 2018-19**

The Commission based on the analysis of the ARR parameters in the above paragraphs approves the Annual Fixed Charge for FY 2018-19 as shown in the table below:

**Table 21: Annual Fixed Charges approved by the Commission for FY 2018-19 (In Rs Cr)**

S. No.	Details	Petitioner's Submission	Approved by the Commission for FY 2018-19
1	Depreciation	1.88	1.88
2	Interest on Loan	0.00	0.00
3	Interest on Working Capital	3.06	2.92
4	Operation and Maintenance Expenses	14.14	14.14

S. No.	Details	Petitioner's Submission	Approved by the Commission for FY 2018-19
5	Return on Equity	11.05	10.89
6	<b>Annual Fixed Charges</b>	<b>30.12</b>	<b>29.83</b>

The Commission, therefore, approves Annual Fixed Charges of Rs 29.83 Cr for FY 2018-19.

#### **4.5 Energy /Variable Charge (Net)**

The Commission approves the computation of energy charge for FY 2018-19 based on the following formula:

$$\text{ECR} = \text{GHR} \times \text{LGP} \times 100 / \{ \text{GCV} \times (100 - \text{APC}) \}$$

Where

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

GHR= Normative Gross Station Heat Rate in kcal/kWh

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

GCV= Gross Calorific Value of gas, in kcal per Cu.m during the calendar month

APC= Normative Auxiliary Power Consumption in percentage

As the energy charges shall be computed and billed based on the above formula, there will be no need for any adjustment in True-up on this account.

An illustrative example is as shown below:

Assuming,

GHR = Normative Gross Station Heat Rate i.e. Rs 2646 kcal/kWh for FY 2018-19

LGP = Rs 8.57/Cu.m

GCV = 10,031.91 kcal/Cu.m

APC= Normative Auxiliary Power Consumption, at 5.00% for FY 2018-19

ECR =  $2646 \times 8.57 \times 100 / ((10031.91 \times (100-5.0)) = \text{Rs } 2.380/\text{kWh}$

So, it can be observed from the above example that the energy charge for the month works out to be Rs 2.380/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 approved by the Commission based on actual values for gross calorific value and price of gas and normative values of gross station heat rate and auxiliary power consumption.**

## **5. Chapter 5: Annual Fixed Charge and other charges approved by the Commission for FY 2018-19**

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

- Annual Fixed Charge (AFC) at Rs 29.83 Cr for FY 2018-19
- The capacity charge (fixed cost) per month to be billed shall be calculated as per Regulation 30 of the CERC Tariff Regulations 2014
- The Incentive shall be governed as per Regulation 30 (4) which is reproduced here below.  
*“Incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF) as specified in Regulation 36 (B).”*
- Normative Annual Plant Load Factor (NAPLF) will be considered at 85% for the purpose of the incentive calculation as per Regulation 36 (B) (a) of the CERC Tariff Regulations 2014.
- The energy charge (net) to be billed per month shall be based on the unit energy rate calculated based on the formula provided in Section 4.5 of this Order.
- Billing of additional claim of Rs 5.71 Cr on account of True-up of FY 2015-16 from EDP in six equal monthly installments 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 FY 2018-19 and related publication expenses) from the beneficiary in twelve equal monthly installments.



## 6. Chapter 6: Directives

### 6.1 Directives continued in this Order

It is observed that some of the directives issued in the previous Tariff Orders have not been fully complied with by the Petitioner. The Commission is of the view that substantial time has already been given to the utility for compliance with these directions. Thus, the Commission hereby 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 Section 142 of the Electricity Act 2003 and various other provisions of the Act, and Regulations framed by JERC.

#### 6.1.1 Installation of additional step-up transformer

<b>Originally Issued in Tariff Order dated 31<sup>st</sup> March 2017</b>
<b>Commission's Directive in Tariff Order Dated 31<sup>st</sup> March 2017</b> <i>The Commission observes that owing to reduction of load at 11 kV feeders, the PPCL is not able to run the plant at full capacity as the adequate step-up transformation capacity is not available for supply at higher voltage. The Commission directs the Petitioner to take up this issue with the Electricity Department of Puducherry as well as the Government of Puducherry and submit the detailed action plan (along with cost thereof) for adequate evacuation of power at higher voltage also so that overall utilization of the plant is improved.</i>
<b>Petitioner's Response in the Present Tariff Petition</b> <i>Petitioner has not submitted any response to the directive of the Commission in its latest tariff Petition.</i>
<b>Commission's Response</b> <i>The Commission takes a serious note on inaction of Petitioner in this regard. The Commission directs the Petitioner to take up this issue with the Electricity Department of Puducherry as well as the Government of Puducherry and submit the detailed action plan within one month of this Tariff Order. The Commission further directs the Petitioner to submit a quarterly progress report within 10 days of end of each quarter.</i>

# Annexures

## Annexure 1: List of Stakeholders

The following is the list of the participants in Public Hearing conducted on 27<sup>th</sup> December 2017 in Puducherry:

**Table 22: List of participants in Public Hearing**

S.No.	Name of Stakeholder
1	Muruganandham
2	M. Nandhakumar
3	Vaibala
4	Brabakar
5	Sundar Raj
6	G. Vazhumuni
7	RM. Bairavan
8	S. Desikan
9	S. Lenin Durai
10	B. Vijayan Vengatesan
11	Chakravarthy
12	Lenin
13	Narayanasamy
14	P. Ragupathy
15	M. Manimaran
16	K. Kurunathan
17	R. Ramalingam
18	G. Karthikeyan
19	K. Kaliyamurugan
20	R. Rajasekar
21	P. Gopal
22	Asoka Subramanian
23	R. Govindaraj
24	M. Narayanasamy
25	K.K. Sivalingam
26	P. Baskar
27	A. Sekar
28	Shanmugam