

**FILING OF PETITION  
FOR TRUE-UP OF  
SECOND CONTROL PERIOD  
FY 2016-17 TO FY 2020-21**



**Submitted by:**



**TENUGHAT VIDYUT NIGAM LIMITED  
(A Govt. of Jharkhand Undertaking)  
Hinoo, Doranda, Ranchi - 834002**

**To:**

**Jharkhand State Electricity Regulatory Commission  
(JSERC)**



Jharkhand State  
Electricity Regulatory  
Commission

**May 2024**



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## List of Abbreviations

Sl. No.	Abbreviations	Descriptions
1.	MW	Megawatt
2.	TVNL	Tenughat Vidyut Nigam Limited
3.	BU	Billion Units
4.	RES	Renewable Energy Sources
5.	CEA	Central Electricity Authority
6.	FGD	Flue Gas Desulphurization
7.	GW	Gigawatt
8.	NTPC	National Thermal Power Corporation Ltd.
9.	PVUNL	Patratu Vidyut Utpadan Nigam Limited
10.	JBVNL	Jharkhand Bijli Vitran Nigam Limited
11.	DVC	Damodar Valley Corporation
12.	JSERC	Jharkhand State Electricity Regulatory Commission
13.	EA	Electricity Act
14.	SERC	State Electricity Regulatory Commission
15.	TPPS	Tenughat Thermal Power Station
16.	KM	Kilometre
17.	MT	Metric Tonne
18.	DPR	Detailed Project Report
19.	EPC	Engineering, Procurement & Construction
20.	PLF	Plant Load Factor
21.	PAF	Plant Availability Factor
22.	MU	Million Units
23.	ERP	Enterprise Resource Planning
24.	SLDC	State Load Dispatch Centre
25.	SHR	Station Heat Rate
26.	R&M	Repair & Maintenance
27.	MYT	Multi Year Tariff
28.	ARR	Annual Revenue Requirement
29.	A&G	Administrative and General
30.	NAPAF	Normative Annual Plant Availability Factor
31.	SFC	Secondary Fuel Consumption
32.	O&M	Operation & Maintenance
33.	AE	Assistant Engineer
34.	JE	Junior Engineer
35.	CE	Chief Engineer
36.	SE	Superintending Engineer
37.	EE	Executive Engineer
38.	FY	Financial Year
39.	LFC	Landed fuel cost
40.	AFC	Annual Fixed Cost
41.	CWiP	Capital Works In Progress
42.	GCV	Gross Calorific Value
43.	GFA	Gross Fixed Assets
44.	SBI	State Bank of India



True-up Petition for Tenughat Vidyut Nigam Limited for the  
Second Control Period FY 2016-17 to FY 2020-21

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**BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY  
COMMISSION**

Filing No: \_\_\_\_\_

Case No: \_\_\_\_\_

**IN THE MATTER OF:**

Filing of Petition for True-up of Second Control Period of FY 2016-17 to FY 2020-21 for TVNL under JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 issued by the Hon'ble Jharkhand State Electricity Regulatory Commission (JSERC), hereinafter referred to as Hon'ble Commission.

**AND**

**IN THE MATTER OF:**

Tenughat Vidyut Nigam Limited ("TVNL")

Hinoo, Doranda, Ranchi

Jharkhand – 834002 ..... PETITIONER

The Petitioner respectfully submits



## Chapter 1: Introduction

### 1.1 Introduction

1.1.1. Tenughat Vidyut Nigam Limited is a power generating company incorporated on 26<sup>th</sup> November 1987 under Indian Company's Act, 1956. With the creation of Jharkhand State on 15<sup>th</sup> November 2000 from the erstwhile Bihar State, TVNL became an undertaking of the Government of Jharkhand. TVNL owns and operates an installed power generation capacity of 420 MW with two units of 210 MW each at Tenughat Thermal Power Station located at Lalpania at the banks of Tenughat reservoir in Bokaro district with its head office at Ranchi. The units are under commercial operation as detailed below:

- a) Unit I - September 1996
- b) Unit II - September 1997

1.1.2. Tenughat Thermal Power Station (TTPS) is located at village Lalpania in the District of Bokaro (Jharkhand). It is situated on the left bank of Tenughat reservoir. The nearest railway station is Gomia which is at a distance of 20 km (approx.) by road. The project site is developed with all modern infrastructure like school, hospital, bank, post office, marketing complex etc.

1.1.3. TTPS has an acquired land of 1800 acres (approx.) TVNL has planned its future expansion of existing site/plant by addition of 2x660 MW super critical units. The consultant for extension project has been appointed and the consultancy work is under progress. The DPR has been prepared and global tender for selection of EPC contractor shall be floated shortly for installation of 2x660 MW units. The needed fuel requirement will be met from its allocated coal block Rajbari E & D located in the district of Latehar. Activity for commencement of coal mining is under progress. Water requirement will be met from Tenu Reservoir of Water Resources Department of the Govt. of Jharkhand. With grey field expansion the total installed capacity of 1740 (2x210 +2x660 MW) MW of TTPS shall be dedicated to the service of the State/Nation.

### 1.2. Regulatory Background

1.2.1. Starting from 2003, TVNL has filed Petitions in accordance with Section 62 of Electricity Act 2003. The details of the previous Orders issued by JSERC on these Petitions are tabulated below:

**Table 1: Previous orders for TVNL issued by JSERC**

Order	Date
Order on True-up for FY 2012-13 to FY 2015-16, for Tenughat Vidyut Nigam Limited (TVNL)	14.12.2023
Order on Petition for Business Plan and Multi Year Tariff for the period FY 2021-22 to FY 2025-26 for Tenughat Vidyut Nigam Limited (TVNL)	14.12.2023



True-up Petition for Tenughat Vidyut Nigam Limited for the Second Control Period FY 2016-17 to FY 2020-21

Order	Date
Order on Petition for Multi Year Tariff for the period FY 2017-21 (Including truing-up For FY 2014-15 & provisional true-up of FY 2015-16) For Tenughat Vidyut Nigam Limited (TVNL)	28.02.2020 & 14.10.2020
Order on Petition for Annual Performance Review for FY 2014-15 (Including truing-up For FY 2012-13 & FY 2013-14) for Tenughat Vidyut Nigam Limited (TVNL)	30.09.2016
Order on Petition for Annual Performance Review for FY 2012-13 (including truing-up for FY 2011-12) for Tenughat Vidyut Nigam Limited (TVNL)	02.07.2014
MYT Order on Business Plan and Annual Revenue Requirement and Determination of Generation Tariff for First Control Period of FY 2012-13 to 2015-16 for Tenughat Vidyut Nigam Limited (TVNL).	30.05.2012
Tariff Order on Annual Revenue Requirement and Determination of Generation Tariff for Financial Years FY 2010-11 & 2011-12 for Tenughat Vidyut Nigam Limited (TVNL).	31.05.2011
Tariff Order on Annual Revenue Requirement and Determination of Generation Tariff for Financial Years FY 2009-10 & 2010-11 for Tenughat Vidyut Nigam Limited (TVNL)	22.11.2010
Tariff Order on ARR and Determination of Generation Tariff for FY 2008-09 & 2009-10 for Tenughat Vidyut Nigam Limited (TVNL)	05.03.2010
Tariff Order for TVNL FY 2007-2008	03.01.2008
Tariff Order for Tenughat Vidyut Nigam Limited (TVNL) FY 2005-06	30.03.2006
Tariff Order for TVNL FY 2004-2005	23.08.2004

1.2.2. The Hon'ble Commission has notified the JSERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015 published on 10<sup>th</sup> November 2015 (Hereinafter referred to as JSERC Generation Tariff Regulations, 2015) in exercise of the powers conferred by Section 61 and 62 read with Section 181 of the Electricity Act, 2003.

1.2.3. Further Regulations 6.11, 6.12, 6.13, 6.14 and 6.15 of JSERC Generation Tariff Regulations, 2015 states that:

*"The Commission shall set targets for each year of the Control Period for the items or parameters that are deemed to be "controllable" and which includes:*

- (a) Gross Station Heat Rate
- (b) Normative Annual Plant Availability Factor
- (c) Auxiliary Energy Consumption
- (d) Secondary Fuel Oil Consumption
- (e) Operation and Maintenance Expenses
- (f) Financing Cost which includes cost of debt (interest), cost of equity (return);  
and
- (g) Depreciation.



*Any financial loss on account of underperformance on targets for parameters*

*specified in clause 6.11 (a) to (e) of these Regulations is not recoverable through tariffs. Similarly, any financial gain on account of over performance with respect to these parameters is to the Generating Company's benefit and shall not be adjusted in tariffs.*

*The Commission shall carry out truing up of tariff of generating station based on the performance of following Uncontrollable parameters:*

- (a) Force Majeure;*
- (b) Change in Law; and*
- (c) Primary Fuel Cost.*

*The true up across various controllable parameters shall be conducted as per principles stated below: -*

- (a) During the control period, the Commission shall undertake true up of parameters except those mentioned in point (b) below in accordance with Clauses 14.1 to 14.3 of this Regulation;*
- (b) any surplus and deficit on account of O&M expenses shall be to the account of the generating company and shall not be trued up in ARR. The Commission shall also not undertake true up of actual capital cost incurred vis-à-vis target as well as related depreciation and financing cost during the control period;*
- (c) at the end of the control period –*
  - i. The Commission shall review actual capital investment vis-à-vis approved capital investment.*
  - ii. Depreciation and financing cost, which includes cost of debt including working capital (interest), cost of equity (return) shall be trued up on the basis of actual/audited information and prudence check by the Commission.*

*Notwithstanding anything contained in these Regulations, the gains or losses in the controllable items of ARR on account of force majeure factors shall be passed on as an additional charge or rebate in ARR over such period as may be laid down in the order of the Commission."*

### **1.3. MYT Order for Second Control Period FY 2016-17 to FY 2020-21 and present true-up Petition**

- 1.3.1. The Hon'ble Commission in its order dated 28<sup>th</sup> February 2020 has determined the ARR for the Control Period FY 2016-17 to FY 2020-21.
- 1.3.2. In compliance to the directives of the Hon'ble Commission, the petitioner herewith submits the true-up petition for the Second Control Period of FY 2016-17 to FY 2020-21 based on the internal audited annual accounts of the aforesaid period



True-up Petition for Tenughat Vidyut Nigam Limited for the  
Second Control Period FY 2016-17 to FY 2020-21

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under JSERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2015.

- 1.3.3. TVNL also submits the Operational Performance Review for Second Control Period of FY 2016-17 to FY 2020-21 based on the actual generation data and internal audited Annual Accounts of FY 2016-17 to FY 2020-21.
- 1.3.4. In light of the above mentioned situation, the Petitioner therefore prays to the Hon'ble Commission to admit this True Up petition for FY 2016-17 to FY 2020-21 and Review of Operational Parameters for the Second Control Period FY 2016-17 to FY 2020-21.



## Chapter 2: True-up for the Control Period FY17 to FY21

For the purpose of True Up, TVNL has compared the actual cost incurred for the Second Control Period FY 2016-17 to FY 2020-21 with the cost approved by the Hon'ble Commission in MYT Tariff Order dated 28<sup>th</sup> February 2020 in which Hon'ble Commission has determined ARR for the Second Control Period FY 2016-17 to FY 2020-21.

The various parameters for the process of True-up have been discussed below:

### 2.1 Plant Availability Factor

2.1.1 The table below summarizes the actual Plant Availability Factor (PAF based on Declared Capacity in %) during the Second Control Period FY 2016-17 to FY 2020-21. The same may be verified from system reports generated on daily basis which are then compiled for generating monthly data.

**Table 2: Actual parameters for the Second Control Period**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
PAF (%)	48.38%	65.04%	53.05%	69.12%	69.66%

2.1.2 Against the actual PAF for the Control Period FY 2016-17 to FY 2020-21 as mentioned above, the petitioner would like to mention that the Hon'ble Commission had approved figures of 85% for the Control Period FY 2016-17 to FY 2020-21 in the MYT order dated 28<sup>th</sup> February 2020.

**Table 3: Approved vis-à-vis actual parameters for the Second Control Period**

Particular	FY 17		FY 18		FY 19		FY 20		FY 21	
	MYT approved	Final true-up submission								
PAF (%)	85	48.38	85	65.04	85	53.05	85	69.12	85	69.66

2.1.3 TVNL requests the Hon'ble Commission to approve PAF as per actual values for the purpose of true-up of the Control Period FY 2016-17 to FY 2020-21.

### 2.2 Gross Generation and Plant Load Factor

2.2.1 It is submitted that the actual gross generation (in MUs) for the Control Period FY 2016-17 to FY 2020-21 along with the MYT approved values is summarized in the following table.



**Table 4: Approved vis-à-vis actual Gross Generation for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
Gross Generation (MUs)	3127	1421	3127	1935	3127	1687	3135	2422	3127	2243

2.2.2 It is hereby submitted by the petitioner that the average Plant Availability Factor (in %) during the Second Control Period of FY 2016-17 to FY 2020-21 was 61.05% against a NAPAF of 85% approved by the Commission for the Control Period.

2.2.3 However, due to backing down of the plant and other uncontrollable factors there has been loss in Gross generation which is reflected in the difference between actual vis-à-vis approved numbers for Plant Load Factor (In %) during the Control Period.

2.2.4 Thus, TVNL requests the Hon'ble Commission to approve the gross generation (In MUs) as per actual values for the purpose of true-up of the Control Period FY 2016-17 to FY 2020-21.

2.2.5 The table below summarizes the actual Plant Load Factor (PLF in %) during the Second Control Period FY 2016-17 to FY 2020-21.

**Table 5: Actual parameters for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
Plant Load Factor	38.62%	52.60%	45.85%	65.65%	60.82%

2.2.6 Against the actual PLF for the Control Period FY 2016-17 to FY 2020-21 as mentioned above, the petitioner would like to mention that the Hon'ble Commission had approved figures of 85% for the Control Period FY 2016-17 to FY 2020-21 in the MYT order dated 28<sup>th</sup> February 2020.

**Table 6: Approved vis-à-vis actual parameters for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
PLF (%)	85%	38.62%	85%	52.60%	85%	45.85%	85%	65.65%	85%	60.82%



- 2.2.7 Actual plant load factor is low because of partial load operation and backing down. TVNL submits that frequent stop/start after reserve shutdown and running of units under backing down affects the performance of the units.
- 2.2.8 TVNL requests the Hon'ble Commission to approve PLF as per actual values for the purpose of true-up of the Control Period FY 2016-17 to FY 2020-21.

### **2.3 Auxiliary Consumption**

- 2.3.1 TVNL requests the Hon'ble Commission to approve the Auxiliary Consumption (In %) as per actual values submitted for the Control Period FY 2016-17 to FY 2020-21 mentioned in the table below.
- 2.3.2 TVNL submits that frequent stop/start after reserve shutdown and running of units under backing down affects the performance of the units. During backing down, power generation is reduced, but most of the auxiliaries remain running at nearly full load, which results in an increase in actual auxiliary consumption.
- 2.3.3 The petitioner would like to submit that the deviation from normative auxiliary consumption values is due to frequent stop/start after reserve shutdown and running of units under backing down. TVNL is in constant endeavour to improve the auxiliary consumption to meet the values approved by the Hon'ble Commission.

**Table 7: Actual Auxiliary Consumption (In %) for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
Auxiliary Consumption (%)	13.67%	13.08%	12.12%	11.94%	11.39%

- 2.3.4 Furthermore, TVNL reiterates its submission that Regulation 6.3B of CERC (Indian Electricity Grid Code) (Fourth Amendment) Regulations, 2016 also provides the compensation for auxiliary consumption and Station Heat Rate on account of partial load operations.
- 2.3.5 In view of CERC Order dated 5<sup>th</sup> May 2017 Central Generating Stations have been granted relief on account of part load operation and multi start/stop of units and accordingly are claiming the compensation charge to beneficiaries.

### **2.4 Net Generation**

- 2.4.1 The actual net generation of TVNL for the Second Control Period of FY 2016-17 to FY 2020-21 is as mentioned in the table below.

**Table 8: Actual Net Generation (In MUs) for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
Net Generation (MU)	1226.67	1682.13	1482.46	2132.82	1982.82



2.4.2 Against the actual values of Net Generation for the Second Control Period of FY 2016-17 to FY 2020-21, the values of Net Generation (In MUs) as approved by the Hon'ble Commission in MYT Order dated 28<sup>th</sup> February 2020 are provided below:

**Table 9: Approved vis-à-vis actual Net Generation for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
Net Generation (In MUs)	2830.2	1226.6	2830.2	1682.1	2830.2	1482.4	2837.9	2132.8	2830.2	1982.8

2.4.3 TVNL requests the Hon'ble Commission to approve the net generation (In MUs) as per data based on actual PLF (%) and actual auxiliary consumption (%) in the Second Control Period of FY 2016-17 to FY 2020-21 provided in the table above.

## 2.5 Station Heat Rate (SHR)

2.5.1 The actual Station Heat Rate (SHR) of TVNL for the Second Control Period of FY 2016-17 to FY 2020-21 is as mentioned in the table below:

**Table 10: Actual Station Heat Rate (SHR) for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
Station Heat Rate (In kcal/kWh)	2795.41	2691.16	2709.18	2609.72	2696.24

2.5.2 The petitioner would further like to submit that over the years it has taken several measures to improve its Station Heat Rate which is also evident from the table given above. The Station Heat Rate has been improved from 2795.41 kCal/kWh in FY 2016-17 to 2696.24 kcal/kWh in FY 2020-21.

2.5.3 Against the actual values of Station Heat Rate (SHR) for the Second Control Period of FY 2016-17 to FY 2020-21, the values of Station Heat Rate (SHR) as approved by the Hon'ble Commission in MYT Order dated 28<sup>th</sup> February 2020 are provided below:

**Table 11: Approved vis-à-vis actual Gross Generation for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
Station Heat Rate (In kcal/kWh)	3,043.0	2,795.4	2,908.0	2,691.2	2,773.0	2,709.2	2,638.0	2,609.7	2,503.0	2,696.2



2.5.4 The petitioner reiterates that Regulation 6.3B of CERC (Indian Electricity Grid Code) (Fourth Amendment) Regulations, 2016 also provides the compensation for auxiliary consumption and Station Heat Rate on account of partial load operations.

2.5.5 It is therefore requested to the Hon'ble Commission to consider the same Station Heat Rate norm for this true - up Petition for the Second Control Period of FY 2016-17 to FY 2020-21 as decided by the Hon'ble Commission for TVNL in its Generation Tariff Regulations 2015.

2.5.6 The Station Heat Rate norms for TVNL for FY 2016-17 to FY 2020-21 as per JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 is presented below:

#### **Tenughat Thermal Power Station (TVNL)**

**Table 12: Approved Station Heat Rate (SHR) for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY21</b>
Station Heat Rate (In kcal/kWh)	3,043	2,908	2,773	2,638	2,503

2.5.7 TVNL requests the Hon'ble Commission to approve the actual SHR mentioned in Table No. 10 for the Second Control Period of FY 2016-17 to FY 2020-21.

#### **2.6 Specific Oil Consumption**

2.6.1 It is submitted that the specific oil consumption of TVNL for the Second Control Period of FY 2016-17 to FY 2020-21 is as mentioned below:

**Table 13: Actual Specific Oil Consumption (ml/kWh) for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
Specific Oil Consumption (In ml/kWh)	4.21	2.01	1.80	1.06	1.04



2.6.2 From the actual values of specific oil consumption for the Second Control Period of FY 2016-17 to FY 2020-21, it is evident that the petitioner is in constant endeavour to improve its specific oil consumption which has improved significantly from 4.21 ml/kWh in FY 2016-17 to 1.04 ml/kWh in FY 2020-21 because of various R&M works undertaken during the period.

2.6.3 Against the actuals for the Second Control Period of FY 2016-17 to FY 2020-21, the petitioner would like to mention that the Hon'ble Commission had approved specific oil consumption of 1 ml/kWh for FY 2016-17 to FY 2020-21 in the MYT order dated 28<sup>th</sup> February 2020 based on "Generation Tariff Regulations, 2015", where the normative specific oil consumption for TPPS has been specified as 1 ml/kWh.

2.6.4 The petitioner would like to submit that historically the actual specific oil consumption for TVNL has been in the range of 2-3 ml/kWh. Due to the works carried out under R&M, TVNL has been able to achieve a specific oil consumption of 1.04 ml/kWh in FY 2020-21 which is a considerable improvement.

2.6.5 The petitioner shall again like to submit that there is precedence of other similar aged and profile plants in other states having specific consumption of around 2.0 ml/kWh – 3.5 ml/kWh and has been approved by the respective Hon'ble Commissions as shown in table below:

**Table 14: Specific Oil Consumption (ml/kWh) of similar aged plants**

Station	Capacity (In MW)	COD	State	Year	Specific Oil Consumption (ml/kWh)
Gandhinagar (Unit – 5)	210	17.03.1998	Gujarat	FY 2011-12 to FY 2015-16	3.50
Wanakbori 7 TPS	210	31.12.1998	Gujarat	FY 2011-12 to FY 2015-16	3.50
Kolaghat (Unit-5)	210	17.03.1991	West Bengal	FY 2014-15, FY 2015-16 & FY 2016-17	2.00
Kolaghat (Unit-6)	210	16.01.1993	West Bengal	FY 2014-15, FY 2015-16 & FY 2016-17	2.00



2.6.6 TVNL would further like to submit that it has been able to recover lesser cost of secondary fuel oil due to this norm and hence it requests relaxation to at least 2.0 ml/kWh i.e. in line with precedence for similar profile power plants in the country.

2.6.7 Therefore, Petitioner would like to request the Hon'ble Commission to kindly consider the facts mentioned above and thus allow the relaxation in secondary fuel oil consumption norms for the Petitioner and requests the Hon'ble Commission to approve specific oil consumption as per actuals submitted for the Second Control Period of FY 2016-17 to FY 2020-21.

## 2.7 Gross Calorific Value (GCV) Of Primary and Secondary Fuel

2.7.1 TVNL requests the Hon'ble Commission to approve the GCV of Primary Fuel and GCV of Secondary Fuel for the Second Control Period of FY 2016-17 to FY 2020-21 as mentioned in the table below:

**Table 15: GCV of primary and secondary fuel for the Second Control Period**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
GCV of primary fuel (kcal/kg)	3642.95	3654.62	3684.71	3681.46	3774.89
GCV of secondary fuel (kcal/L)	9359	9359	9359	9359	9359

2.7.2 The GCV of Secondary Fuel Oil is in line with the approved figures for FY 2016-17 to FY 2020-21 in the MYT order dated 28<sup>th</sup> February 2020.

## 2.8 Price of primary fuel

2.8.1 TVNL submits the actual fuel cost for the Second Control Period of FY 2016-17 to FY 2020-21 as mentioned in the table below:

**Table 16: Price of primary fuel for the Second Control Period**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
Cost of primary fuel (Rs/MT)	2542.81	2718.10	3170.11	3370.36	3346.05

2.8.2 Against the actual values of Cost of primary fuel (Rs/MT) for the Second Control Period of FY 2016-17 to FY 2020-21, the values of Cost of primary fuel (Rs/MT) as approved by the Hon'ble Commission in MYT Order dated 28<sup>th</sup> February 2020 are provided below:

**Table 17: Approved vis-à-vis actual cost of primary fuel for the Second Control Period**

Particular	FY 17		FY 18		FY 19		FY 20		FY 21	
	MYT approved	Final true-up submission								
Primary fuel cost (Rs/MT)	2458.1	2,542.8	2,458.1	2,718.1	2,458.1	3,170.1	2,458.1	3,370.3	2,458.1	3,346.0



2.8.3 In view of the submissions made in previous sections regarding performance parameters, TVNL humbly prays to the Hon'ble Commission to approve the actual fuel cost for the Second Control Period of FY 2016-17 to FY 2020-21 as mentioned in the table above.

## 2.9 Energy Charge Rate

2.9.1 The table below summarizes the results of True up of plant parameters and fuel cost determinants for the two Units of Tenughat Thermal Power Station for the Second Control Period of FY 2016-17 to FY 2020-21.

**Table 18: Plant parameters and fuel cost determinants (Approved vis-à-vis actual) for the Second Control Period**

Particular	FY 17		FY 18		FY 19		FY 20		FY 21	
	MYT approved	Final true-up submission								
Capacity (MW)	420	420	420	420	420	420	420	420	420	420
PAF (%)	85%	48.38	85%	65.04	85%	53.05	85%	69.12	85%	69.66
PLF (%)	85%	38.62	85%	52.60	85%	45.85	85%	65.65	85%	60.82
Gross Generation (MU)	3127	1421	3127	1935	3127	1687	3136	2422	3127	2244
Auxiliary consumption (%)	9.50%	13.67	9.50%	13.08	9.50%	12.12	9.50%	11.94	9.50%	11.39
Net Generation (MU)	2830.2	1226.7	2830.2	1682.1	2830.2	1482.5	2838.0	2132.8	2830.2	1988.2
Station Heat rate (kcal/kWh)	3043.0	2795.4	2908.0	2691.2	2773.0	2709.2	2638.0	2609.7	2503.0	2696.2
GCV of coal (kcal/kg)	3615.2	3643.0	3615.2	3654.6	3615.2	3684.7	3615.2	3681.5	3615.2	3774.9
Transit loss (%)	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Total coal consumption (Million MT)	2.63	1.08	2.51	1.42	2.40	1.24	2.28	1.71	2.16	1.60
Cost of coal (Rs. /MT)	2458.2	2542.8	2458.2	2718.1	2458.2	3170.1	2458.2	3370.4	2458.2	3346.1
Total cost of coal (Rs. Cr.)	646.37	273.89	617.61	385.42	588.84	391.52	561.61	577.63	531.32	535.40
Total Oil Consumption (kL)	3127.3	5976.3	3127.3	3884.1	3127.3	3039.8	3135.9	2560.1	3127.3	2331.1



<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
Cost of oil (Rs/kL)	60,000	41,428	60,000	44,626	60,000	54,832	60,000	53,759	60,000	39,515
Total oil cost (Rs. Cr.)	18.71	24.76	18.71	17.33	18.71	16.67	18.76	13.76	18.76	9.21
<b>Energy Charge Rate (Rs/kW h)</b>	<b>2.32</b>	<b>2.23</b>	<b>2.22</b>	<b>2.29</b>	<b>2.12</b>	<b>2.64</b>	<b>2.02</b>	<b>2.71</b>	<b>1.92</b>	<b>2.69</b>

2.9.2 TVNL request the Hon'ble Commission to approve the Energy Charge rate based on actual basis for the Second Control Period of FY 2016-17 to FY 2020-21.

## 2.10 O&M Expenses

2.10.1 The Operations & Maintenance expenses of a company includes:

- Employee expenses
- Repair & Maintenance expenses
- Administrative and General expenses

2.10.2 Employee expenses consist of salaries, overtime allowance, leave salary and expenses for staff & officers' welfare.

2.10.3 Repair and Maintenance is meant for the upkeep of the generating station. Further, as every asset requires repair and maintenance at some point, to keep the thermal generating station healthy and reliable the petitioner must infuse certain amounts of funds on R&M activities. TVNL is trying its best to ensure achievement of parameters as specified by the Hon'ble Commission and accordingly making necessary expenditure on R&M activities.

2.10.4 Administrative and General expenses mainly consist of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

2.10.5 Further Regulations 6.11, 6.12, 6.13, 6.14 and 6.15 of JSERC Generation Tariff Regulations, 2015 states that:

*"The Commission shall set targets for each year of the Control Period for the items or parameters that are deemed to be "controllable" and which includes:*

- (a) Gross Station Heat Rate
- (b) Normative Annual Plant Availability Factor
- (c) Auxiliary Energy Consumption
- (d) Secondary Fuel Oil Consumption
- (e) Operation and Maintenance Expenses



- (f) *Financing Cost which includes cost of debt (interest), cost of equity (return) and*
- (g) *Depreciation.*

*Any financial loss on account of underperformance on targets for parameters specified in clause 6.11 (a) to (e) of these Regulations is not recoverable through tariffs. Similarly, any financial gain on account of over performance with respect to these parameters is to the Generating Company's benefit and shall not be adjusted in tariffs.*

*The Commission shall carry out truing up of tariff of generating station based on the performance of following Uncontrollable parameters:*

- (a) *Force Majeure;*
- (b) *Change in Law; and*
- (c) *Primary Fuel Cost.*

*The true up across various controllable parameters shall be conducted as per principles stated below: -*

- (a) *During the control period, the Commission shall undertake true up of parameters except those mentioned in point (b) below in accordance with Clauses 14.1 to 14.3 of this Regulation;*
- (b) *Any surplus and deficit on account of O&M expenses shall be to the account of the generating company and shall not be trued up in ARR. The Commission shall also not undertake true up of actual capital cost incurred vis-à-vis target as well as related depreciation and financing cost during the control period;*
- (c) *At the end of the control period –*
  - i. *The Commission shall review actual capital investment vis-à-vis approved capital investment.*
  - ii. *Depreciation and financing cost, which includes cost of debt including working capital (interest), cost of equity (return) shall be trued up on the basis of actual/audited information and prudence check by the Commission.*

*Notwithstanding anything contained in these Regulations, the gains or losses in the controllable items of ARR on account of force majeure factors shall be passed on as an additional charge or rebate in ARR over such period as may be laid down in the order of the Commission."*



2.10.6 As the aforesaid regulation mentions that any financial loss on account of underperformance or any financial gain on account of overperformance shall not be adjusted in tariffs and any surplus and deficit on account of O&M expenses shall be to the account of the generating company and shall not be true up in ARR.

2.10.7 The petitioner is constantly striving to improve upon its operational performance which is evident from the actuals submitted but has to face strong headwinds due to the age of the plant and several other constraints. The Hon'ble Commission in its approach for true-up of "controllable" parameters has approved some parameters based on actuals and some parameters based on the set targets which has led to considerable under recovery of fixed charges by the petitioner.

2.10.8 The petitioner thus requests the Hon'ble Commission to adopt a uniform methodology for approving "controllable" parameters as mentioned in 6.11 (a) to (e) of JSERC Generation Tariff Regulations, 2015 based on actuals as approved in MYT Order dated 28<sup>th</sup> February 2020.

2.10.9 Thus, TVNL requests the Hon'ble Commission to approve the O&M expenses for the Second Control Period of FY 2016-17 to FY 2020-21 as per actuals mentioned in table below:

**Table 19: O&M expenses approved vis-à-vis actuals for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
Employee expenses (Rs. Cr.)	68.63	92.73	72.95	68.70	77.55	64.03	82.43	135.68	87.62	92.25
R&M expenses (Rs. Cr.)	45.81	86.28	48.69	109.96	51.76	83.52	55.02	71.28	58.49	61.13
A&G expenses (Rs. Cr.)	17.13	20.03	18.21	20.06	19.36	20.50	20.58	22.36	21.88	33.27
Water Charges (In Rs. Cr.)	12.00		12.00		12.00		12.00		12.00	
<b>Total O&amp;M Expenses (Rs. Cr.)</b>	<b>143.5</b>	<b>199.0</b>	<b>151.8</b>	<b>198.7</b>	<b>160.6</b>	<b>168.0</b>	<b>170.0</b>	<b>229.3</b>	<b>179.9</b>	<b>186.6</b>



## 2.11 Depreciation

2.11.1 The depreciation for the Second Control Period of FY 2016-17 to FY 2020-21 has been computed based on the asset classification, cost of acquisition and additional capitalization of assets during the Control Period.

2.11.2 The petitioner has followed "JSERC Generation Tariff Regulations, 2015" for the calculation of depreciation expense which has following methodology –

*"Depreciation shall be calculated for each year of the tariff period, on the amount of Capital Cost of the assets admitted by the Commission.*

*Provided that depreciation shall not be allowed on assets funded by any capital subsidy / grant.*

*The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.*

*Depreciation shall be calculated annually based on 'Straight Line Method' and at rates specified in Appendix-I to these Regulations for the assets of the generating station*

2.11.3 TVNL submits the actual depreciation expenses for the Second Control Period of FY 2016-17 to FY 2020-21 as mentioned in table below:

**Table 20: Depreciation expenses for the Second Control Period**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
Depreciation expenses (Rs. Cr.)	17.65	16.37	24.83	9.82	9.50

2.11.4 Against the actual values of depreciation Cost (In Rs. Cr.) for the Second Control Period of FY 2016-17 to FY 2020-21, the values of depreciation Cost (In Rs. Cr.) as approved by the Hon'ble Commission in MYT Order dated 28<sup>th</sup> February 2020 are provided below:

**Table 21: Approved vis-à-vis actual depreciation expenses (In Rs. Cr.) for the Second Control Period**

Particular	FY 17		FY 18		FY 19		FY 20		FY 21	
	MYT approved	Final true-up submission								
Depreciation Expense (Rs. Cr.)	26.01	17.65	26.01	16.37	26.01	24.83	26.01	9.82	26.01	9.50



2.11.5 Accordingly, TVNL requests the Hon'ble Commission to approve the depreciation as per actuals for the Second Control Period of FY 2016-17 to FY 2020-21.

## 2.12 Interest on loan

2.12.1 As per the JSERC Generation Tariff Regulations, 2015:

*"7.20 The normative loan outstanding as on 1.4.2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2016 from the gross normative loan.*

*7.21 The repayment for any year during the Tariff Period shall be deemed to be equal to the depreciation allowed for that Year."*

2.12.2 In the MYT tariff order dated 28<sup>th</sup> February 2020, the Hon'ble Commission had followed Generation Tariff Regulations, 2015 to approve Interest on Loan as mentioned in the table below for the Second Control Period of FY 2016-17 to FY 2020-21.

**Table 22: Interest on loan approved for the Second Control Period**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
Interest on loan (Rs. Cr.)	35.83	32.45	29.07	25.69	22.31

2.12.3 Against the approved values of interest on loan (In Rs. Cr.) for the Second Control Period of FY 2016-17 to FY 2020-21 by the Hon'ble Commission in MYT Order dated 28<sup>th</sup> February 2020, the actual values of interest on loan (In Rs. Cr.) as per audited accounts are provided below:

**Table 23: Approved vis-à-vis actual values of interest on loan (In Rs. Cr.) for the Second Control Period**

Particular	FY 17		FY 18		FY 19		FY 20		FY 21	
	MYT approved	Final true-up submission								
Interest on loan (Rs. Cr.)	35.83	103.20	32.45	103.22	29.07	101.10	25.69	103.22	22.31	103.22



2.12.4 The Petitioner would like to submit to the Hon'ble Commission that it is difficult for TVNL to service its debt timely due to delayed and partial payments being made by JBVNL. As on 31<sup>st</sup> March 2016, JBVNL owes TVNL cumulative dues of Rupees Three Thousand Eighty Two Crores Seventy One Lakhs only i.e., INR 3,082.71 Crores. Due to the late payment of dues by JBVNL to TVNL, debt could not be serviced timely in the past and hence in the Second Control Period of FY 2016-17 to FY 2020-21 TVNL had to pay penalties along with the Interest on Loan.

2.12.5 Therefore, TVNL requests the Hon'ble Commission to approve the actual interest on loan as per table above for the Second Control Period of FY 2016-17 to FY 2020-21.

## 2.13 Interest on working capital

2.13.1 As per JSERC Generation Tariff Regulations, 2015 the norms for calculation of interest on working capital is as follows:

- i. *"Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower*
- ii. *Cost of secondary fuel oil for two months for generation corresponding to the Normative Annual Plant Availability Factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil*
- iii. *Maintenance spares @ 20% operation and maintenance expenses*
- iv. *Operation and maintenance expenses for 1 month*
- v. *Receivables equivalent to 2 months of capacity and energy charges from sale of electricity calculated on the NAPAF."*

2.13.2 Against the actual values of interest on working capital (In Rs. Cr.) for the Second Control Period of FY 2016-17 to FY 2020-21, the values of interest on working capital (In Rs. Cr.) as approved by the Hon'ble Commission in MYT Order dated 28th February 2020 020 are provided below:

**Table 24: Approved vis-à-vis actual interest on working capital (In Rs. Cr.) for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
Cost of coal for 1.5 months (Rs. Cr.)	79.69	33.77	76.14	47.52	72.60	48.27	69.05	71.21	65.5	66.01
Cost of secondary fuel oil for	1.88	4.13	1.88	2.89	1.88	2.78	1.88	2.29	1.88	1.54



<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
two months (Rs. Cr.)										
O&M expenses for 1 month (Rs. Cr.)	9.80	16.59	10.40	16.56	11.03	14.00	11.70	19.11	12.42	15.55
Maintenance spares @20% of O&M expenses (Rs. Cr.)	23.52	39.81	24.95	39.74	26.47	33.61	28.08	45.86	29.8	37.33
Receivables for two months (Rs. Cr.)	148.51	59.20	144.42	76.74	140.41	76.75	136.77	108.74	132.7	99.75
<b>Total working capital (Rs. Cr.)</b>	<b>263.4</b>	<b>153.4</b>	<b>257.7</b>	<b>183.4</b>	<b>252.3</b>	<b>175.4</b>	<b>247.4</b>	<b>247.2</b>	<b>242.3</b>	<b>220.1</b>
Rate of interest (%)	12.80	12.80	12.80	12.60	12.80	12.20	12.80	12.55	12.80	11.65
<b>Interest on working capital (Rs. Cr.)</b>	<b>33.72</b>	<b>19.65</b>	<b>33.00</b>	<b>23.12</b>	<b>32.31</b>	<b>21.40</b>	<b>31.68</b>	<b>31.03</b>	<b>31.01</b>	<b>25.65</b>

2.13.3 TVNL request the Hon'ble Commission to approve the interest on working capital as per actuals submitted for the Second Control Period of FY 2016-17 to FY 2020-21.

#### 2.14 Return on Equity

2.14.1 As per JSERC Generation Tariff Regulations, 2015 the return on equity shall be calculated on pre-tax basis at the base rate of 15.50% to be grossed up with the normal tax rate applicable to the generating company.

2.14.2 Since there is no income tax paid by the petitioner during the Second Control Period of FY 2016-17 to FY 2020-21, the post-tax rate of equity has been considered.

2.14.3 In the MYT tariff order dated 28th February 2020, the Hon'ble Commission had followed Generation Tariff Regulations, 2015 to approve Return on Equity as mentioned in the table below for the Second Control Period of FY 2016-17 to FY 2020-21.

**Table 25: Return on Equity approved for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
Return on Equity (Rs. Cr.)	28.62	28.62	28.62	28.62	28.62



2.14.4 Against the approved values of return on equity (In Rs. Cr.) for the Second Control Period of FY 2016-17 to FY 2020-21 by the Hon'ble Commission in MYT Order dated 28<sup>th</sup> February 2020, the actual values of return on equity (In Rs. Cr.) as per actuals are provided below:

**Table 26: Approved vis-à-vis actual Return on Equity (In Rs. Cr.) for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
Equity (Opening balance) (Rs. Cr.)	184.64	205.44	184.64	222.90	184.64	226.27	184.64	227.50	184.64	227.81
Net additions during the year (Rs. Cr.)	-	17.46	-	3.37	-	1.22	-	0.31	-	1.24
Equity (Closing balance) (Rs. Cr.)	184.64	222.90	184.64	226.27	184.64	227.50	184.64	227.81	184.64	229.05
Average equity (Rs. Cr.)	184.64	214.17	184.64	224.59	184.64	226.89	184.64	227.65	184.64	228.43
Rate of return on equity (%)	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50
<b>Return on equity (Rs. Cr.)</b>	<b>28.62</b>	<b>33.20</b>	<b>28.62</b>	<b>34.81</b>	<b>28.62</b>	<b>35.17</b>	<b>28.62</b>	<b>35.29</b>	<b>28.62</b>	<b>35.41</b>

2.14.5 TVNL request the Hon'ble Commission to approve the return on equity as per actuals submitted for the Second Control Period of FY 2016-17 to FY 2020-21.

## 2.15 Non-tariff income

2.15.1 TVNL requests the Hon'ble Commission to approve the non-tariff income as per audited accounts for the Second Control Period of FY 2016-17 to FY 2020-21 as provided in the table below:

**Table 27: Non-tariff for the Second Control Period as per audited accounts**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
Non-tariff income (Rs. Cr.)	33.49	35.94	36.61	42.51	36.92



## 2.16 Cost of secondary fuel oil

2.16.1 The Hon'ble Commission has followed JSERC Generation Tariff Regulations, 2015 to calculate the cost of secondary fuel oil on normative plant availability. The cost of secondary fuel oil (In Rs. Cr.) as approved by the Hon'ble Commission in the MYT Order dated 28<sup>th</sup> February 2020 is as mentioned in the table below:

**Table 28: Cost of secondary fuel oil (In Rs. Cr.) as approved for the Second Control Period**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
Cost of secondary fuel oil (Rs. Cr.)	11.28	11.28	11.28	11.28	11.28

2.16.2 The computation of cost of secondary fuel oil is presented in the table below:

**Table 29: Secondary fuel oil cost (In Rs. Cr.) as per actuals for the Second Control Period**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
Gross Generation (MUs)	1421	1935	1687	2422	2244
Specific oil consumption (ml/kWh)	4.21	2.01	1.80	1.06	1.04
Cost of oil (Rs. /KL)	41428	44626	54832	53759	39515
Oil consumption (KL)	5976.3	3884.1	3039.8	2560.1	2331.1
<b>Total cost of oil (Rs. Cr.)</b>	<b>24.76</b>	<b>17.33</b>	<b>16.67</b>	<b>13.76</b>	<b>9.21</b>

2.16.3 TVNL request the Hon'ble Commission to approve the cost of secondary fuel oil as per actuals submitted for the Second Control Period of FY 2016-17 to FY 2020-21.

## 2.17 Summary of fixed costs

2.17.1 In the MYT tariff order dated 28<sup>th</sup> February 2020, the Hon'ble Commission had followed Generation Tariff Regulations, 2015 to approve total fixed costs as mentioned in the table below for the Second Control Period of FY 2016-17 to FY 2020-21.

**Table 30: Total fixed cost approved for the Second Control Period (In Rs. Cr.)**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
O&M Expenses	143.56	151.85	160.66	170.03	179.99
Depreciation	26.01	26.01	26.01	26.01	26.01
Interest on loans	35.83	32.45	29.07	25.69	22.31
Return on equity	28.62	28.62	28.62	28.62	28.62
Interest on working capital	33.72	33.00	32.31	31.68	31.01
Less: Non-tariff income	(34.29)	(34.29)	(34.29)	(34.29)	(34.29)
<b>Total fixed cost</b>	<b>233.45</b>	<b>237.63</b>	<b>242.37</b>	<b>247.73</b>	<b>253.64</b>



2.17.2 The total fixed costs filed for true-up of Second Control Period of FY 2016-17 to FY 2020-21 is submitted below:

**Table 31: Total fixed cost filed for true-up for the Second Control Period (In Rs. Cr.)**

Particular	FY 17	FY 18	FY 19	FY 20	FY 21
O&M Expenses	199.04	198.72	168.05	229.32	186.65
Depreciation	17.65	16.37	24.83	9.82	9.50
Interest on loans	103.20	103.22	101.10	103.22	103.22
Return on equity	33.20	34.81	35.17	35.29	35.41
Interest on working capital	19.65	23.12	21.40	31.03	25.65
Less: Non-tariff income	(33.49)	(35.94)	(36.61)	(42.51)	(36.92)
<b>Total fixed cost</b>	<b>339.25</b>	<b>340.29</b>	<b>313.94</b>	<b>366.16</b>	<b>323.51</b>

2.17.3 TVNL request the Hon'ble Commission to approve the total fixed costs as per MYT approved values and actuals as per audited accounts for the Second Control Period of FY 2016-17 to FY 2020-21.

## 2.18 Revenue gap/surplus

2.18.1 The total fixed and variable charges for TVNL for the Second Control Period of FY 2016-17 to FY 2020-21 works out to be as mentioned in the table below:

**Table 32: Approved vis-à-vis actual total fixed costs (In Rs. Cr.) for the Second Control Period**

Particular	FY 17		FY 18		FY 19		FY 20		FY 21	
	MYT approved	Final true-up submission								
O&M Expenses	143.56	199.04	151.85	198.72	160.66	168.05	170.03	229.32	179.99	186.65
Depreciation	26.01	17.65	26.01	16.37	26.01	24.83	26.01	9.82	26.01	9.50
Interest on loans	35.83	103.20	32.45	103.22	29.07	101.10	25.69	103.22	22.31	103.22
Return on equity	28.62	33.20	28.62	34.81	28.62	35.17	28.62	35.29	28.62	35.41
Interest on working capital	33.72	19.65	33.00	23.12	32.31	21.40	31.68	31.03	31.01	25.65
<b>Total fixed cost</b>	<b>267.7</b>	<b>372.7</b>	<b>271.9</b>	<b>376.2</b>	<b>276.6</b>	<b>350.5</b>	<b>282.0</b>	<b>408.6</b>	<b>287.9</b>	<b>360.4</b>
<b>Total energy charges</b>		<b>273.8</b>		<b>385.4</b>		<b>391.5</b>		<b>577.6</b>		<b>535.4</b>
Total expenses		613.14		725.71		705.47		943.79		858.90
Less: NTI		33.49		35.94		36.61		42.51		36.92
Net total expenses		579.65		689.77		668.86		901.28		821.98
Total amount billed by		423.60		566.38		596.08		779.28		698.73



<b>Particular</b>	<b>FY 17</b>		<b>FY 18</b>		<b>FY 19</b>		<b>FY 20</b>		<b>FY 21</b>	
	MYT approved	Final true-up submission								
TVNL as per accounts										
<b>Gap/(Surplus) for the year</b>		<b>189.5</b>		<b>159.3</b>		<b>109.4</b>		<b>164.5</b>		<b>160.2</b>

2.18.2 The regulatory provisions for Carrying Cost/Holding Cost provided in the JSERC Generation Tariff Regulations 2010 are extracted for reference as under:

*"6.16 If the Tariff already recovered is more than the Tariff determined after true up, the Generating Company shall refund to the Beneficiaries the excess amount so recovered along with simple interest at the rate equal to short term prime lending rate of State Bank of India as on 1<sup>st</sup> April of the respective Year.*

*6.17 Similarly, in case the Tariff already recovered is less than the Tariff determined after true up, the Generating Company shall recover from the Beneficiaries, the less recovered amount along with simple interest at the rate equal to short term prime lending rate of State Bank of India as on 1<sup>st</sup> April of the respective Year/Years subject to adhering to the timelines specified by the Commission for filling of True-up application. In case, it is found that the filling of True-up is delayed due to the reasons attributable to the Generating Company, the under recovery shall not bear any interest expenses.*

*6.18 The amount under-recovered or over-recovered, along with simple interest, shall be recovered or refunded by the Generating Company, in six equal monthly instalments starting within three months from the date of the tariff order issued by the Commission after the trueing up exercise."*

2.18.3 The table below provides the computation of carrying cost and the resultant final true-up Surplus for the Second Control Period of FY 2016-17 to FY 2020-21 as follows:

**Table 33: Total gap/(Surplus) and carrying cost (In Rs. Cr.) for the Second Control Period**

<b>Particular</b>	<b>FY 17</b>	<b>FY 18</b>	<b>FY 19</b>	<b>FY 20</b>	<b>FY 21</b>
Gap/(surplus) for the year	189.54	159.33	109.39	164.51	160.17
Carrying cost	190.15	137.62	79.55	97.22	75.26
Total revenue gap/(surplus)	379.69	296.95	188.94	261.73	235.43
<b>Total revenue gap/(surplus) for the control period</b>			<b>1362.74</b>		



## Chapter 3: Prayer

TVNL respectfully prays to the Hon'ble Commission:

1. To admit this true-up Petition for the Second Control Period of FY 2016-17 to FY 2020-21.
2. To approve Revenue Requirement and Capital Expenditure for the Second Control Period of FY 2016-17 to FY 2020-21.
3. To approve the operational and financial parameters as proposed by TVNL considering the constraints of the old machines and consider the same for recovery of full fixed cost.
4. To approve the Station's operating parameters viz. PAF, Auxiliary Consumption, Station Heat Rate, Transit Loss, Specific Oil Consumption and actual fuel rate for recovery of variable cost considering the constraints of the old machines as well as site specific constraints.
5. To condone the delay in filing this Petition.
6. To grant any other relief as the Hon'ble Commission may consider appropriate.
7. To approve the ARR based on the operating parameters as per the norms provided in the Regulation and allow the Petitioner to retain the gains on account of the efficiency improvement in the Operating Parameters.
8. The Petitioner craves leave of the Hon'ble Commission to allow further submissions, addition and alteration to this Petition as may be necessary from time to time.
9. Pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

Declaration that the subject matter of the petition has not been raised by the petitioner before any other competent forum, and that no other competent forum is currently seized of the matter or has passed any orders in relation thereto.