

Jharkhand State Electricity Regulatory Commission



**Order
on
True-up for FY 2015-16
And
ARR for MYT Period FY 2016-17 to FY 2020-21
And
Determination of Tariff for FY 2016-17
for
DVC Command Area of Jharkhand**

**Damodar Valley Corporation
(DVC)**

**Ranchi
May 2018**

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List of Abbreviations

Abbreviation	Description
APR	Annual Performance Review
ARR	Annual Revenue Requirement
ATE	Appellate Tribunal of Electricity
CERC	Central Electricity Regulatory Commission
DPS	Delayed Payment Surcharge
DVC	Damodar Valley Corporation
FOR	Forum of Regulators
FY	Financial Year
GoI	Government of India
HT	High Tension
JSEB	Jharkhand State Electricity Board
JSERC	Jharkhand State Electricity Regulatory Commission
LT	Low Tension
kV	Kilovolt
kVA	Kilovolt-ampere
kW	Kilowatt
kWh	Kilowatt-hour
MU	Million Units
NTI	Non-Tariff Income
O&M	Operations and Maintenance
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RPO	Renewable Purchase Obligation
Rs	Rupees
SAP	System, Application and Production
SBI	State Bank of India
T&D	Transmission & Distribution

Before

**Jharkhand State Electricity Regulatory Commission,
Ranchi**

Case (T) No. 05 of 2016 and 02 of 2017

In the matter of:

Petition for Annual Performance review for FY 2015-16;

And

Annual revenue requirement for MYT Control Period FY 2016-17 to FY 2020-21

And

Determination of tariff for FY 2016-17

In the matter:

Damodar Valley Corporation, DVC Towers, V.I.P. Road, Kolkata- 700 054

..... Petitioner

PRESENT

Hon'ble Dr Arbind Prasad

- Chairperson

Hon'ble Mr R. N Singh

- Member (Engg.)

Order dated 18.05.2018

In this Petition, Damodar Valley Corporation (hereinafter referred to as DVC) has prayed for Order of APR for FY 2015-16, ARR for FY 2016-17 to FY 2020-21 and determination of Tariff for FY 2016-17 for its command area of Jharkhand.

A1: INTRODUCTION

Jharkhand State Electricity Regulatory Commission (JSERC)

- 1.1 The Jharkhand State Electricity Regulatory Commission (herein after referred to as “JSERC” or “the Commission”) was established by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commission Act, 1998 on 22nd August, 2002. The Commission became operational w.e.f. 24th April, 2003. The Electricity Act, 2003 (hereinafter referred to as “the Act” or “EA, 2003”) came into force w.e.f. 10th June, 2003; and the Commission is now deemed to have been constituted and functioning under the provisions of the Act.
- 1.2 The Government of Jharkhand vide its notification dated 22nd August, 2002 defined the functions of JSERC as per Section 22 of the Electricity Regulatory Commission Act, 1998 to be the following, namely:-
 - (a) to determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be, in the manner provided in Section 29;
 - (b) to determine the tariff payable for the use of the transmission facilities in the manner provided in Section 29;
 - (c) to regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;
 - (d) To promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.
- 1.3 After the Electricity Act, 2003 came into force, the earlier Electricity Regulatory Commission Act of 1998 stands repealed and the JSERC is discharging its functions as prescribed in Section 86 of the Act.
- 1.4 In accordance with provisions of the said Act, the JSERC discharges the following functions: -
 - (a) Determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State;

Provided that where open access has been permitted to a category of consumers under Section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
 - (b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

- (c) facilitate intra-state transmission and wheeling of electricity;
 - (d) issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
 - (e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;
 - (f) adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;
 - (g) levy fee for the purposes of this Act;
 - (h) specify State Grid Code consistent with the Grid Code specified under Clause (h) of sub-section (1) of Section 79;
 - (i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
 - (j) fix the trading margin in the intra-state trading of electricity, if considered, necessary;
 - (k) Discharge such other functions as may be assigned to it under this Act.
- 1.5 The Commission advises the State Government on all or any of the following matters, namely:-
- (a) promotion of competition, efficiency and economy in activities of the electricity industry;
 - (b) promotion of investment in electricity industry;
 - (c) reorganization and restructuring of electricity industry in the State;
 - (d) Matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.
- 1.6 The State Commission ensures transparency while exercising its powers and discharging its functions.
- 1.7 In discharge of its functions, the State Commission is guided by the National Tariff Policy framed and published by Government of India under the provisions of Section 3 of the Act. The objectives of the present National Tariff Policy are to:
- (a) ensure availability of electricity to consumers at reasonable and competitive rates;

- (b) ensure financial viability of the sector and attract investments;
- (c) promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;
- (d) promote competition, efficiency in operations and improvement in quality of supply.

Damodar Valley Corporation (DVC)

- 1.8 Damodar Valley Corporation (hereinafter referred to as ‘DVC’ or the ‘Petitioner’), is a statutory body incorporated under the Damodar Valley Corporation Act, 1948, having multifarious functions. Regarding the electricity, DVC undertakes generation of electricity and is therefore a generating company within the meaning of Section 2 (28) of the Electricity Act, 2003. DVC also undertakes transmission of electricity in the Damodar valley area which falls within the territorial limits of the two states namely, West Bengal and Jharkhand. It, therefore, undertakes inter-state transmission of electricity and operates inter-state transmission system within the meaning of Section 2 (36) of the Electricity Act, 2003. DVC also undertakes the sale of electricity to West Bengal State Electricity Distribution Company Limited (WBSEDCL) and Jharkhand Bijli Vitaran Nigam Limited (JBVNL) in its capacity generally as a generating company. This is bulk sale of electricity by a generating company to a distribution licensee within the meaning of Section 62 (1) (a) of the Electricity Act, 2003. In addition to the above, DVC undertakes the retail sale and supply of electricity to the consumers in the Damodar Valley area under the provisions of Section 62 (d) read with Section 86 (1) of the Electricity Act, 2003.
- 1.9 DVC, being a statutory body constituted under the DVC Act, 1948, is a Public Sector Undertaking (PSU). As envisaged under Section 79 (1) (a) of the Electricity Act, 2003, the tariff for generation of electricity is to be decided by the Central Electricity Regulatory Commission (CERC). Similarly, with regards to the inter-state transmission, DVC again is regulated by CERC and tariff for composite (inter-state) generation & transmission is to be determined by the CERC in terms of Section 79 (1) (c) and (d) of the Electricity Act, 2003.
- 1.10 With regards to the retail sale and supply of electricity, DVC covers the entire Damodar Valley area which falls in two contiguous States, namely, the State of West Bengal and the State of Jharkhand. Thus, tariff for retail sale and supply of electricity in the Damodar Valley area is governed by the provisions of Section 62 (d) read with Section 86 (1) of the Electricity Act, 2003 and has to be determined by the respective Electricity Regulatory Commissions in the states of West Bengal and Jharkhand.

Scope of the Present Order

- 1.11 This Order relates to the Petition filed by the Petitioner before the Commission for APR for FY 2015-16, determination of ARR for the 2nd MYT Control Period from FY 2016-17 to FY 2020-21 and determination of tariff for FY 2016-17 for Damodar Valley Corporation (DVC) Command area falling within the territorial jurisdiction of the State of Jharkhand.

- 1.12 The Order is in accordance with Sections 61, 62 and 64 of the Electricity Act, 2003 and provisions of the JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010 (hereinafter referred to as 'Distribution Tariff Regulations, 2010') and JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2015 (hereinafter referred to as 'Distribution Tariff Regulations, 2015').
- 1.13 While processing the above Petition, the Commission has taken into consideration the following:
- (a) Provisions of the Electricity Act 2003 as amended from time to time;
 - (b) Principles laid down in the National Electricity Policy;
 - (c) Principles laid down in the National Tariff Policy;
 - (d) Provisions of the JSERC 'Distribution Tariff Regulations, 2010' and
 - (e) Provisions of the JSERC 'Distribution Tariff Regulations, 2015'

A2: PROCEDURAL HISTORY

Background

- 2.1 DVC filed the petition for determination of ARR for the 2nd MYT Control Period FY 2016-17 to FY 2020-21 and tariff for FY 2016-17 on 24th August 2016 for the distribution and retail supply of electricity to consumers serviced by DVC in the part of Damodar Valley falling within the territorial jurisdiction of the state of Jharkhand. The Petition for APR for FY 2015-16 (including finalization of ARR and revenue gap for FY 2006-07 to FY 2014-15) was filed by the Petitioner on 21st February, 2017.
- 2.2 Earlier, DVC filed the Petition for True-up from FY 2006-07 to FY 2013-14 and Annual performance review of FY 2014-15 on 4th Jan, 2016 for which the Commission issued an Order on 19th April 2017.

DVC Case History

- 2.3 Central Electricity Regulatory Commission (CERC) by Order dated 3rd October, 2006, decided the tariff for DVC for its functions of inter-state generation and transmission of electricity and directed that the tariff so determined should be made effective for the period 1st April, 2006 to 31st March, 2009.
- 2.4 DVC, aggrieved by the order dated 3rd October, 2006 passed by CERC, had filed an appeal against the said Order before the ATE. The ATE before passing its final judgement in the appeal filed by DVC against the aforementioned Order by CERC, issued several interim orders dated 6 December, 2006, 15 January, 2007 and 26 February, 2007, restraining the State Commissions of West Bengal and Jharkhand from passing orders for determination of distribution and retail tariffs for DVC till its final judgement. The ATE, by judgment and Order dated November 23, 2007, allowed the appeal filed by DVC and directed CERC to determine the revenue requirements and inter-state generation and transmission tariff for DVC for the period FY 2006-07 to FY 2008-09, de-novo, in the terms laid down in its Order. Subsequently, the CERC in accordance with the directions of the ATE revised the ARR and tariff for inter-state generation and transmission of electricity for the period FY 2006-07 to FY 2008-09 by its Order dated August 6, 2009.
- 2.5 Aggrieved by the Order passed by the CERC on August 6, 2009, DVC again filed an appeal against the said Order before ATE. The ATE vide Interim Order dated September 16, 2009 allowed the WBERC and JSERC to fix the retail supply tariff for FY 2010-11 after considering the generation tariff as fixed by CERC in its Order dated August 6, 2009 as the input cost but not any final orders in this regard. Consequently, DVC filed the Petition for determination of ARR and retail tariffs for the period FY 2006-07 to FY 2010-11 to the Commission on October 31, 2009. Since the matter was subjudice before the ATE and there was a direction for not passing

any final retail tariff Order, the Commission kept the Petition pending awaiting final order of the ATE.

- 2.6 The ATE, vide its Order dated May 10, 2010, directed DVC to implement the generation tariff as determined by the CERC in its Order dated August 6, 2009 and to give effect to any refund to its consumers arising out of implementation of the said Order. The relevant extract of the said Order is reproduced below:

*“107. Since we do not find any substance in the grounds raised in the Appeal, we deem it fit to dismiss the Appeal as devoid of merits. Consequently, **we direct the Appellant (DVC) to implement the Tariff as determined by the Central Commission vide its Order dated, 6th August, 2009.** DVC is also directed to revise the electricity bills raised by it for electricity consumption during April, 2006 onwards of its licensees and HT consumers and **refund the excess amount billed and collected along with the interest at the rate of 6 per cent per annum in line with Section 62 (6) of The Electricity Act, 2003...**” Emphasis added*

- 2.7 Aggrieved by the said Order of the ATE, DVC filed an appeal before the Hon’ble Supreme Court of India, being No. C.A. No. 4881/ 2010. The Hon’ble Supreme Court in its Order dated July 9, 2010, stayed refund. The matter is still subjudice. The relevant part of the said Order is reproduced below:

*“In the meantime, parties will submit before us the various disputed items to be taken into account in Tariff Fixation as well as the relevant documents on which Damodar Valley Corporation would be relying upon at the final hearing...**Until further orders, there shall be stay on refund.**” Emphasis added*

- 2.8 From the said Order, it is clear that the entire Order of the Hon’ble ATE has not been stayed by the Hon’ble Supreme Court and the stay is related to only refund.
- 2.9 The ATE, by its Order dated May 10, 2010, directed the Petitioner to approach the concerned SERCs for finalizing the retail tariffs, the relevant extract is being reproduced below:

“107. Thereafter, the DVC is directed to approach the concerned State Electricity Commissions for getting the final Order relating to the Retail Tariff who in turn will fix the retail Tariff according to law.”

- 2.10 The Commission, in line with the directions of the ATE in its aforementioned Order, initiated the process of review of the Tariff Petitions submitted by the Petitioner and issued the provisional Order on ARR for FY 2006-07 to FY 2012-13 on 22nd November, 2012.
- 2.11 The Petitioner subsequently submitted the final True-up Petition for FY 2006-07 to FY 2012-13 along with the MYT Petition for the Control Period from FY 2013-14 to FY 2015-16 on 28th February 2014. The Commission while issuing the MYT Order for the Control Period FY 2013-14 to FY 2015-16 on 04th September, 2014

did not undertake the final True-up for FY 2006-07 to FY 2012-13 as the matter was subjudice. The Commission, in the said Order, had noted that:

“5.7 In the Tariff Order dated 22nd November 2012, the Commission had approved a cumulative revenue surplus of Rs.424.38 Cr for the period FY 2006-07 to FY 2008-09. However, as the true up for the above-mentioned years was provisional subject to the final decision of the Hon’ble Supreme Court in its appeal C.A. No. 4881/2010, the Commission had not allowed any pass through of this surplus along with the revenue gap approved for FY 2010-11 and FY 2011-12 to be adjusted once the final decision is made in this regard.

5.8 In view of above, the Commission is of the opinion that as the True up for period FY 2006-07 to FY 2008-09 is still subject to final judgement of the Hon’ble Supreme Court with respect to the appeal No. C.A. No. 4881/2010 filed by DVC against the Order of ATE dated 10th May 2010; the Commission has not made any adjustment in revenue surplus approved for this period. This would be a pass through once the final judgement is issued in this matter.

5.9 With respect to True up for FY 2009-10 to FY 2012-13 in accordance with the Final Tariff orders issued by CERC, the Commission is of the view that detailed analysis should be carried out to assess the impact of the orders. In this regard, several consumers have represented in front of the Commission for approval of compensation as per the CERC regulations due to them for refund of excess capacity charges recovered by DVC. M/s Bihar Foundry & Castings Ltd being a HT consumer within the command area of DVC has preferred an appeal before the Hon’ble Supreme Court vide appeal No. SLP (Civil) No 10945 of 2012 for refund of excess of capacity charges realised by DVC.

....

5.14 In view of above, the Commission is of the opinion that final true up for the period FY 2009-10 to FY 2012-13 shall be undertaken on finalisation of compensation as per the CGRF and final judgement of Supreme Court in appeal no. SLP (Civil) No 10945 of 2012 for refund of excess of capacity charges realised by DVC.

5.15 Accordingly, the Commission has not considered any true up for previous years revenue gap/surplus in this order.”

- 2.12 One of the HT consumer of DVC, Anjaney Ferro Alloys, filed an Appeal before the Hon’ble APTEL, against the Commission’s Order dated 4th September, 2014 submitting that the Commission ought to have undertaken final True-up of the of ARR for FY 2006-07 to FY 2012-13. The Hon’ble APTEL, agreeing with the view of the Commission that the matter of True-up was subjudice, upheld the Order of the Commission. Anjaney Ferro Alloys preferred an appeal before the Hon’ble Supreme Court of India (CA No. 7383/2016) against the Order dated 23.03.2016 passed by the Hon’ble APTEL.

- 2.13 The Hon'ble Supreme Court of India, vide its Judgment dated 26th October, 2016, directed JSERC to take-up the issue of True-up of previous years and make the decision subject to the result of Civil Appeal No. 4881 of 2010. The apex court ruled:

".. Therefore, this appeal is disposed of with a direction to Respondent No.1- Jharkhand State Electricity Regulatory Commission to take up the true-up issue and pass the required Orders within a period of six months from today.

However, the Commission is free to make the decision subject to the result of Civil Appeal No. 4881 of 2010 in case the said civil appeal is not disposed of before the said period."

- 2.14 In accordance with the above, the Commission issued an Order on True-up from FY 2006-07 to FY 2013-14 and Annual Performance Review for FY 2014-15 on 19th April 2017.

Information gaps in the petition

- 2.15 During the course of scrutiny of the instant petitions filed by the Petitioner, several deficiencies were observed which were communicated to the Petitioner through letter nos. JSERC/Case (Tariff) no 05 of 2016 and 02 of 2017/106, dated 4th May 2017 and JSERC/Case (Tariff) no 02 of 2017/300 dated 28th July 2017.
- 2.16 The Petitioner submitted its replies in response to the queries vide letter no. Coml./Tariff/JSERC/1637 dated 18th August 2017, letter no. Coml./Tariff/JSERC/519 dated 17th May 2017, and 07th June 2017 and letter no. Coml./Tariff/JSERC/1754 dated 29th August 2017.

Inviting public response

- 2.17 After the initial scrutiny of Petition filed by the Petitioner, the Commission directed the Petitioner to issue public notice for inviting comments/ suggestions from public and to make available copies of the Petition to the general public.
- 2.18 The public notice was subsequently issued by the Petitioner in various newspapers, as detailed hereunder:

Table 1: List of Newspapers where public notice was published by DVC inviting public comments/objections/suggestions

Newspaper (Jharkhand Editions)	Date
The Telegraph	26/9/2017 & 27/9/2017
The Times of India	26/9/2017 & 27/9/2017
Prabhat Khabar	26/9/2017 & 27/9/2017
Dainik Jagran	26/9/2017 & 27/9/2017

- 2.19 A period of 21 days was given for submitting the comments/suggestions. The Commission subsequently issued advertisement on its website www.jserc.org and in various newspapers for conducting the public hearing on the Petition filed by DVC. The newspapers wherein the advertisement for public hearing was issued by the Commission are detailed hereunder:

Table 2: List of Newspapers where public notice was published by Commission for Public hearing

Newspaper (Jharkhand Editions)	Date
Hindustan	07.12.2017
Times of India	07.12.2017
Prabhat Khabar	08.12.2017
Morning India	08.12.2017

- 2.20 The public hearings were held on 18.12.2017 at Hazaribagh and on 20.12.2017 at Auditorium, Combined Building, Area No. 6, DVC, Maithon, Dhanbad. During the hearing, many respondents gave their comments and suggestions on the ARR filing by the Petitioner.
- 2.21 During the hearing, many respondents gave their comments and suggestions on the ARR filing by the Petitioner. The comments/suggestions of the public as well as the Petitioner's response to them are detailed in the section dealing with the public consultation process in this Order.

A3: SUMMARY OF THE PETITIONS

Summary of Petition for Annual Performance Review (APR) for FY 2015-16

3.1 The following table provides a summary of the APR petition filed by the Petitioner:-

Table 3:- Summary of APR petition for FY 2015-16

S. No.	Particulars	FY 2015-16
1.	Own Generation Cost	6757.69
2.	Power Purchase Cost	1029.36
3.	Gross ARR	7787.05
4.	Non-Tariff Income	28.27
5.	Add: tariff filling and publication expenses for CERC	4.64
6.	Add: Water and Pollution Cess Paid	2.61
7.	Net ARR	7766.03
8.	Net ARR allocated in the state of Jharkhand (In the ratio of sales)	4546.71
9.	Add: tariff filling & publication expenses in Jharkhand	0.31
11.	Interest on Working Capital	104.94
12.	Interest on Security Deposit	1.39
13.	Cost of Solar & Non Solar Power and REC Purchased to meet the solar & non solar RPO in the state of Jharkhand	47.27
14.	Total ARR of DVC in Jharkhand Area	4700.61
15.	Energy Sold in Jharkhand (MU)	10237.62
16.	Average Tariff Rate in Jharkhand (Rs./kWh)	4.59
17.	Revenue Realized	4275.83
18.	Revenue Gap/ (Surplus)	424.77
19.	Revised Revenue Gap accrued during FY 2006-07 to 2014-15	5914.95
20.	Further receipt during FY 2015-16 from JBVNL under UDAY scheme as one time settlement of dues accrued during FY 2006-07 to 2014-15	3631.19
21.	Revenue gap pending for adjustment	2283.76
22.	Carrying Cost from 2006-07 to 2015-16	3400.83
23.	Net Receivable in FY 2015-16	6109.36

Business Plan for the MYT Control Period FY 2016-17 to FY 2020-21

3.2 DVC, in its Business Plan has submitted that the details of the capital expenditure plan along with the financing plan for the generation and the transmission business has been submitted to the CERC along with the petitions for determination of tariff in respect of different generating stations and T&D system. No capital expenditure has been proposed for the distribution business.

Aggregate Revenue Requirement for the 2nd MYT Control Period FY 2016-17 to FY 2020-21

3.3 Following table summarizes the ARR for the period FY 2016-17 to FY 2020-21 as submitted by the Petitioner:-

Table 4:- Summary of ARR filed by the Petitioner for FY 2016-17 to FY 2020-21

S. No.	Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		Original Submission	Revised Dated 07.06.17	Original submission	Revised Dated 07.06.17	Original submission	Revised Dated 07.06.17	Original submission	Revised Dated 07.06.17	Original Submission	Revised Dated 07.06.17
1.	Own Generation Cost	8836.62	7872.89	10148.45	8912.57	11184.62	9875.67	13155.15	10811.16	14791.27	11946.23
2.	Power Purchase Cost	783.82	783.87	688.06	688.15	710.69	710.83	740.6	740.78	761.34	761.57
3.	Gross ARR	9620.44	8656.76	10836.5	9600.72	11895.31	10586.5	13895.75	11551.94	15552.61	12707.8
4.	Non-Tariff Income	38.12	38.12	36.22	36.22	32.6	32.6	27.71	27.71	22.17	22.17
5.	Add: tariff filling and publication expenses for CERC	5.19	4.93	5.35	5.00	5.54	5.11	5.71	5.22	5.88	5.34
6.	Add: Water and Pollution Cess Paid	2.48	2.48	2.54	2.54	2.6	2.6	2.67	2.67	2.73	2.73
7.	Net ARR	9589.99	8626.05	10808.18	9572.04	11870.86	10561.61	13876.42	11532.12	15539.06	12693.7
8.	Net ARR allocated in the state of Jharkhand (In the ratio of sales)	5525.36	4970.05	6155.11	5451.15	6683.23	5946.13	7720.54	6416.22	8535.17	6972.29
9.	Add: tariff filling & publication expenses in Jharkhand	0.67	0.97	0.69	0.78	0.72	0.46	0.75	0.47	0.78	0.48
10.	Interest on Working Capital	7.88	101.81	8.8	113.07	9.59	123.9	11.11	134.06	12.27	145.94
11.	Interest on Security Deposit	1.58	1.58	1.79	1.79	1.99	1.99	2.19	2.19	2.4	2.4
12.	Cost of Solar & Non Solar Power and REC Purchased to meet the solar & non solar RPO in Jharkhand	75.04	84.45	98.25	126.32	129.18	168.9	170.47	203.03	182.42	217.33
13.	Total ARR of DVC in	5610.54	5158.86	6264.64	5693.09	6824.71	6241.38	7905.05	6755.97	8733.03	7338.44

S. No.	Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
		Original Submission	Revised Dated 07.06.17	Original submission	Revised Dated 07.06.17	Original submission	Revised Dated 07.06.17	Original submission	Revised Dated 07.06.17	Original Submission	Revised Dated 07.06.17
14	Jharkhand Area										
	Energy Sold in Jharkhand (MU)	11031.79	10377.94**	11698.58	11698.58	12424.91	12424.91	13200.48	13200.48	14008.29	14008.29
15	Average Tariff Rate in Jharkhand at existing tariffs (Rs./kWh)	4.73	4.97**	4.71	4.71	4.68	4.68	4.65	4.65	4.64	4.64
16	Revenue Realized (at existing tariffs)	5215.95	5017.09**	5508.14	5508.16	5811.81	5811.82	6142.29	6142.29	6498.28	6498.28
17	Revenue Gap/ (Surplus)	394.59	141.77	756.5	184.95	1012.89	429.56	1762.76	613.68	2234.75	840.16

** As per DVC's additional submission dated 29.08.17

Tariff Proposal

a) Supply to LT Consumers

- As per the Section 42 and 43 of the Electricity Act, 2003, DVC has a Universal Service Obligation to provide supply of electricity to consumers within its license area.
- In the previous tariff orders, the Commission had also directed DVC to submit details of consumers below 33 kV viz. LT consumers along with its tariff proposal for such category of consumers.
- Accordingly, DVC has now submitted the requisite details of LT consumers and has also proposed a tariff for LT (Domestic and Commercial) consumers.

b) The category wise existing and proposed tariff is given as below:-

Table 5:- Category wise proposed tariff for FY 2016-17 to FY 2020-21 by the Petitioner

Consumer Category	Name of Tariff Scheme	Consumption slab	Existing Tariff (2015-16)		Proposed Tariff (2016-17)		Proposed Tariff (2017-18)		Proposed Tariff (2018-19)		Proposed Tariff (2019-20)		Proposed Tariff (2020-21)	
			Energy Charges (P/kWh)	Fixed/ Demand Charges (Rs/ Connection/Month)	Energy Charges (P/kWh)	Fixed/ Demand Charges (Rs/ Connection /Month)	Energy Charges (P/kWh)	Fixed/ Demand Charges (Rs/ Connection/Month)	Energy Charges (P/kWh)	Fixed/ Demand Charges (Rs/ Connection/Month)	Energy Charges (P/kWh)	Fixed/ Demand Charges (Rs/ Connection/ Month)	Energy Charges (P/kWh)	Fixed/ Demand Charges (Rs/ Connection/ Month)
LT (Domestic) LT (Commercial)	NON TOD	All units	260.00*	43.00*	270.00	47.00	281.00	52.00	292.00	57.00	304.00	63.00	316.00	69.00
	NON TOD	All units	(P/kWh)	(Rs/ KW/ Month)	(P/kWh)	(Rs/ KW/ Month)	(P/kWh)	(Rs/KW/ Month)	(P/kWh)	(Rs/ KW/ Month)	(P/kWh)	(Rs/ KW/ Month)	(P/kWh)	(Rs/ KW/Month)
			565.00	190.00	587.00	209.00	611.00	230.00	635.00	253.00	661.00	278.00	687.00	306.00
Industries (33KV)			(P/kWh)	(Rs/ KVA/ Month)	(P/kWh)	(Rs/ kVA/ Month)	(P/kWh)	(Rs/ kVA/ Month)	(P/kWh)	(Rs/ kVA/ Month)	(P/kWh)	(Rs/ kVA/Month)	(P/kWh)	(Rs/ kVA/Month)
	NON TOD	All units	405.00	410.00	302.00	787.80	307.00	864.20	318.00	914.91	329.00	930.74	341.00	946.18
	TOD	Normal (06:00 to 17:00)	405.00	410.00	295.00	787.80	300.00	864.20	310.00	914.91	322.00	930.74	334.00	946.18
		Peak (17:00 to 23:00)	405.00		353.00		359.00		372.00		386.00		401.00	
		Off Peak (23:00 to 6:00)	405.00		250.00		255.00		264.00		274.00		284.00	
Industries (132 KV)	NON TOD	All units	360.00	410.00	295.00	787.80	300.00	864.20	311.00	914.91	323.00	930.74	335.00	946.18
	TOD	Normal (06:00 to 17:00)	360.00	410.00	288.00	787.80	294.00	864.20	304.00	914.91	316.00	930.74	328.00	946.18
		Peak (17:00 to 23:00)	360.00		346.00		352.00		364.00		379.00		393.00	
		Off Peak (23:00 to 6:00)	360.00		245.00		249.00		258.00		268.00		279.00	
Traction (132 KV)	Non TOD	All units	240.00	410.00	295.00	787.80	300.00	864.20	310.00	914.91	323.00	930.74	334.00	946.18
Industries (220 KV)	NON TOD	All units	355.00	410.00	283.00	787.80	288.00	864.20	299.00	914.91	311.00	930.74	323.00	946.18
	TOD	Normal (06:00 to 17:00)	355.00	410.00	279.00	787.80	284.00	864.20	294.00	914.91	304.00	930.74	316.00	946.18
		Peak (17:00 to 23:00)	355.00		334.00		340.00		352.00		365.00		379.00	
		Off Peak (23:00 to 6:00)	355.00		237.00		241.00		250.00		259.00		269.00	

A4: Public Consultation Process - Issues Raised

- 4.1 The tariff petition evoked response from several consumers. Several stakeholders including the consumers, representatives of the Commission and DVC, participated in the public hearing held on 18.12.2017 at Hazaribagh and on 20.12.2017 at Auditorium, Combined Building, Area No. 6, DVC, Maithon, Dhanbad.
- 4.2 The members of the public put forth their comments and suggestions before the Commission in the presence of the Petitioner. The list of the attendees is attached in **Annexure I**. The Commission also received written suggestions/ comments by the public on the tariff petition filed by the Petitioner.
- 4.3 During the course of public hearing, the Commission allowed persons/ representatives of entities, who had not submitted prior written representations but attended the public hearing, to express their views regarding the Petitions filed by the Petitioner.
- 4.4 The issues raised in the written submissions, by the participants in the hearing and the reply of the Petitioner have been summarised herein below.

Contribution to Pension and Gratuity Fund

Public Comments/Suggestions

- 4.5 The Objectors submitted that the Petitioner has arbitrarily charged higher expenditure towards the pension as against the amount allowed by CERC.

Petitioner's Response

- 4.6 The Petitioner denied the claims of the objector and submitted that its claim towards Pension, Gratuity fund & additional O&M on account of pay revision are as per the recommendations of the Sixth Pay Commission and were duly approved by the Hon'ble CERC in the Order dated 8th May, 2013.

Views of the Commission

- 4.7 The Commission has scrutinised the submission of the Petitioner in detail and has approved the contribution to Pension and Gratuity Fund strictly as per the relevant Orders of the CERC.

Annual Fixed Charges (Cost of own Generation)

Public Comments/Suggestions

- 4.8 The Objectors submitted that the Petitioner has claimed the cost of own generation from considering the Annual Fixed Charges (AFC) approved by the CERC based on projected expenditure amounts although final tariff orders for most of the stations have been issued by the Commission.
- 4.9 The Objector also submitted that as per CERC Regulations, the stations/ transmission systems for which the final tariff order has not been issued for the period 2014-19, the tariff has to be billed to the beneficiaries as finalised on 31.3.2014. The relevant clause of the CERC Regulations is reproduced below:

“(8) In case of the existing projects, the generating company or the transmission licensee, as the case may be, may be allowed tariff by the Commission based on the admitted capital cost as on 1.4.2014 and projected additional capital expenditure for the respective years of the tariff period 2014-15 to 2018-19 in accordance with the Regulation 6:

Provided that:

(i) the generating company or the transmission licensee, as the case may be, shall continue to bill the beneficiaries or the transmission customers / DICs at the tariff approved by the Commission and applicable as on 31.3.2014 for the period starting from 1.4.2014 till approval of tariff by the Commission in accordance with these regulations:

Petitioner’s Response

- 4.10 The Petitioner submitted that the CERC orders were issued subsequent to the submission of the instant petition before the Commission. However, the Petitioner has revised the same during subsequent submissions based on the latest Tariff Orders issued by CERC.

Views of the Commission

- 4.11 The Commission has taken into consideration the input cost of the DVC’s generating stations as per the latest Orders of the CERC for the relevant years.

Loss Levels

Public Comments/Suggestions

- 4.12 The Objector submitted that the Clause 5.29 of the Tariff Regulations classifies the distribution loss as a controllable parameter. The Objector further submitted that the Distribution & Retail Tariff has to be in line with the Tariff Regulations and requested the Commission to consider the trajectory prescribed by the Commission in the previous orders.

Petitioner's Response

- 4.13 The Petitioner submitted that the loss level fixed by the Commission is to restrict the T&D losses to a minimum level of 3% and Appellate Tribunal vide its judgement dated 23/3/2016 stated that:

“(n) The Appellant should immediately take prudent measures in its command area within an aim to bring down the T&D Losses by complying with the various requisite proven measures.”

“(o) Since the truing up exercise by the State Commission is not yet accomplished for the recent past financial years, the state Commission would be analysing the same during its truing up....”

- 4.14 The Petitioner submitted that the emphasis of the Regulator & Tribunal are completely on the Petitioner's effort on lowering the loss levels. The Petitioner further submitted that the loss levels were brought down from 4.86% in FY 2013-14 to 3.58% in FY 2014-15 and requested the Commission to allow the T&D loss claimed on actual basis as is the case with previous years.

Views of the Commission

- 4.15 The Commission, in the MYT Order dated 4th September 2014, had set a T&D loss target of 3.00% for the Period from FY 2012-13 to FY 2015-16. The Commission observes that the Petitioner has failed to achieve the loss target in the year FY 2015-16. Accordingly, the Commission finds it prudent to adopt the T&D loss of 3.00% for FY 2015-16 and thus power procured in excess of normative loss level has been disallowed.

Power purchase Cost

Public Comments/Suggestions

- 4.16 The objector submitted that although the Petitioner doubled its generating capacity over the last five years, short term power purchase and net over drawl from the grid has been consistently going up. The Objector referred to the relevant clause on the short term Power Requirements as per tariff requirements and Section 63 of the Electricity Act 2003 and submitted that the petitioner has not furnished any relevant data to depict that they had adhered to the regulations.
- 4.17 The Objector submitted that UI is a mechanism to maintain grid discipline and cannot be treated as a source of power purchase and the FOR chaired by chairperson, CERC, and all the chairpersons of the SERC had agreed that the charges for additional unscheduled UI would not be allowed to be recovered from the consumers. The Objector urged the Commission to disallow the UI charges incurred over & above the expenses approved in Tariff orders issued in November 2012 & September 2015.

- 4.18 The Objector further submitted that the Petitioner has not considered power purchase cost especially the cost owing to RE fulfilment towards solar & Non-solar RPO.

Petitioner's Response

- 4.19 The Petitioner denied that the net UI payment cannot be treated as a source of power purchase. The Petitioner further submitted that they supply immune power to some of its consumers like Railways, Collieries which require uninterrupted power supply and therefore had to draw unscheduled power from Grid in an unscheduled mode to balance the load & generation.
- 4.20 The Petitioner had requested the Commission to allow power purchase through UI as is the case with the MYT Order 2014-16.

Views of the Commission

- 4.21 The Commission has thoroughly scrutinised the submission of the Petitioner and has approved the power purchase cost after prudence check.

Facilitation of application of new connection

Public Comments/Suggestions

- 4.22 The objector submitted that it is very difficult for the general public to submit applications for new connections as there are very few avenues for submission of applications. DVC accepts new applications in its head office in Kolkata which is not practical for the masses.

Petitioner's Response

- 4.23 The Petitioner submitted that any new application can be submitted at the DVC headquarters in Kolkata.

Views of the Commission

- 4.24 The Commission agrees with the view of the objector that submission of applications only at Kolkata office is not a feasible option and creates hindrances for the public. Accordingly, the Commission directs the Petitioner to make necessary arrangements to ensure that applications for new connections are accepted at every Grid Sub Station besides introducing other avenues for application submission.

A5 Final True-up of ARR from FY 2006-07 to FY 2013-14 and APR for FY 2014-15

- 5.1 The Commission had approved the true-up order for FY 2006-07 to FY 2013-14 and APR for FY 2014-15 on 20th April, 2017.
- 5.2 The final tariff Orders for some of the DVC's own generating stations for the relevant period were yet to be issued by CERC, at the time of the finalization of DVC's distribution Order dated 20th April, 2017. Accordingly, the Commission had approved the tariff for DVC's own generating stations based on the provisional tariff approved by CERC for the generating and composite inter-state transmission system of the Petitioner.
- 5.3 The CERC has now issued final Tariff Orders for the period FY 2006-07 to FY 2014-15 for the following stations:

Table 6:- Date of issue of final tariff orders

Name	Date
BTPS U# 1-3	19.05.2017
CTPS U# 1-3	23.09.2016
CTPS U# 8	09.02.2017
CTPS U# 7,8	09.02.2017
CTPS U# 7,8	17.02.2017
DSTPS U# 1&2	17.03.2017
DTPS U# 3&4	20.07.2017
KTPS U# 1,2	28.02.2017
MHS	20.09.2016
MTPS U# 1-3	31.08.2016
MTPS U# 4	20.09.2016
MTPS U# 5,6	16.03.2017
MTPS U# 7,8	14.09.2016
MTPS U# 7,8	03.10.2016
PHS	20.09.2016
THS	23.09.2016
T&D	29.09.2017

- 5.4 As CERC has issued final tariff orders for the aforementioned period, therefore the Commission resolves to revise the ARR of the relevant years based on the revised fixed cost approved by CERC on respective dates for various stations.
- 5.5 The following table summarises the ARR for Jharkhand area for the period FY 2006-07 to FY 2010-11 as approved by the Commission:

Table 7: Summary of ARR (Rs Cr) for Jharkhand Area for FY 2006-07 to FY 2014-15 as approved by the Commission

Particulars	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Own generation cost	2,523.16	2,466.62	2,601.92	3,786.35	4,189.29	5332.87	6186.53	7643.18	6342.98
Power Purchase Cost	35.42	84.92	82.10	753.11	600.04	555.00	861.41	865.53	1196.06
T&D Cost	164.32	173.19	173.73	Included in own generation cost					
Pension as allowed by CERC	628.19	628.19	628.19						
Sinking fund contribution as allowed by CERC	40.43	30.72	27.55						
Pension for distribution business not considered by CERC	1.23	1.23	1.23	0.49	0.49	0.49	0.49	0.49	0.00
Other costs (incl. of Tariff filing & publication costs)	0.25	0.25	0.33	1.12	1.17	1.38	2.91	3.54	2.99
Water and Pollution Cess	-	-	-	2.79	2.75	2.06	2.72	2.02	2.50
Total Cost	3393.00	3385.11	3515.04	4543.85	4793.74	5891.80	7054.05	8514.77	7544.53
Non-Tariff Income	7.65	12.22	24.26	1.89	7.63	28.54	231.60	20.79	71.57
Net Cost	3385.35	3372.89	3490.78	4541.96	4786.11	5863.27	6822.45	8493.98	7472.96
Ratio of sales in Jharkhand Area to Total DVC area	63%	60%	60%	58%	59%	59%	57%	57%	58%
Allocation of Cost to Jharkhand Area in ratio of energy sales in Jharkhand area	2124.86	2014.05	2094.48	2650.05	2846.03	3451.36	3883.93	4852.30	4366.41
Add: Cost of Solar and Non-Solar Power Purchased to meet the RPO in the state of Jharkhand	-	-	-	-	-	-	-	11.48	48.92
Add: Tariff filing & publication expenses	0.24	0.23	0.27	0.63	0.66	0.34	0.34	0.38	0.58
Add: Interest on Working Capital	2.15	2.76	3.35	3.67	3.38	4.44	5.48	5.65	6.62
Add: Interest on security deposit	-	-	-	-	-	1.02	2.11	1.27	1.24
Total ARR for Jharkhand area	2127.11	2016.92	2097.94	2653.82	2849.52	3457.16	3891.87	4871.08	4423.77
Revenue from sale of power in Jharkhand	2097.76	2256.09	2737.41	2995.05	2878.70	3412.38	3717.43	3910.08	4489.57
Revenue Gap/(Surplus)	29.35	(239.17)	(639.47)	(341.23)	(29.18)	44.78	174.44	961.00	(65.80)

5.6 The table below depicts the cumulative gap/ (surplus) from FY 2006-07 to FY 2014-15 as approved by the Commission now:

**Table 8:- Cumulative Gap / (Surplus) (Rs Cr) for Jharkhand Area from FY 2006-07 to FY 2014-15
as approved by the Commission now**

	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Opening Gap	0	30.86	(219.18)	(924.68)	(1400.08)	(1595.48)	(1755.21)	(1826.79)	(1060.33)
Add: Revenue Gap/ (Surplus) for the year	29.35	(239.17)	(639.47)	(341.23)	(29.18)	44.78	174.44	961.00	(65.80)
Closing Gap / (Surplus)	29.35	(208.32)	(858.66)	(1265.90)	(1429.26)	(1550.70)	(1580.76)	(865.79)	(1126.13)
SBI PLR	10.25%	12.25%	12.25%	12.25%	11.75%	13.00%	14.75%	14.45%	14.75%
Carrying Cost on Opening Gap	0.00	3.78	(26.85)	(113.27)	(164.51)	(207.41)	(258.89)	(263.97)	(156.40)
Interest on Additions	1.50	(14.65)	(39.17)	(20.90)	(1.71)	2.91	12.87	69.43	(4.85)
Total Carrying Cost	1.50	(10.87)	(66.02)	(134.17)	(166.22)	(204.50)	(246.03)	(194.54)	(161.25)
Closing Gap / (surplus) incld. carrying cost	30.86	(219.18)	(924.68)	(1400.08)	(1595.48)	(1755.21)	(1826.79)	(1060.33)	(1287.39)

A6: True-up for FY 2015-16

A5: The Petitioner has sought approval for the Annual Performance Review (APR) for FY 2015-16. Since the FY 2015-16 is already completed, the Commission has carried out of True-up of FY 2015-16 as actual information along with audited annual accounts of FY 2015-16 were made available by the Petitioner.

A6: The component-wise description of the Petitioner's submission and the Commission's analysis on the same is provided in the foregoing paragraphs.

Consumers, Connected Load & Energy Sales

Petitioner's Submission

A7: The Petitioner submitted the actual category-wise number of consumers, connected load and energy sales in the Damodar Valley area falling within the state of Jharkhand for FY 2015-16.

Commission's Analysis

A8: The Commission after scrutinizing the latest information submitted by the Petitioner, the annual accounts made available for the aforementioned year and prudence check, approves the actual number of consumers, connected load and energy sales as submitted by the Petitioner for FY 2015-16.

A9: The petitioner, in its reply to the 2nd discrepancy note dated 29th August, 2017, had submitted the sales details for FY 2015-16 wherein it had reduced 15.32 MUs from sales on account of JSEB line loss adjustment. However, no justification of this deduction was mentioned by the petitioner. In the absence of detailed clarification the Commission has not considered the units pertaining to line loss adjustment.

Table 9:- Consumers, Connected Load & Energy Sales in Jharkhand Area as submitted by DVC & approved by the Commission for FY 2015-16

Consumer Category	As submitted by Petitioner			As approved by Commission		
	Consumers	Connected Load (MVA)	Consumption (MU)	Consumers	Connected Load (MVA)	Consumption (MU)
LT	4	0.00	46.35	4	0.00	46.35
33 KV	131	1373	7517.42	131	1373	7517.42
132 KV	10	505	1953.84	10	505	1953.84
132 KV TRACTION	13	252	554.38	13	252	554.38
220 KV				1	65	180.95
TOTAL in Jharkhand	159	2194	10252.94	159	2194	10252.94

Transmission & Distribution (T&D) Losses & Energy Requirement

Petitioner's Submission

- A10: The Petitioner submitted that as it is supplying power in bulk to the WBSEDCL & JSEB and since majority of HT consumers falling in the Damodar valley area are at 33 KV and above voltage, it incurs very low T&D losses. The Petitioner has submitted a T&D loss of 3.62% for FY 2015-16.
- A11: Further, in addition to the energy sold in the Jharkhand area, the Petitioner also submitted the actual sales in the West Bengal area and the energy wheeled from its inter-state transmission system for the purposes of computation of the energy requirement for the entire Damodar Valley area.
- A12: Based on the total energy sales in the Damodar Valley area, the T&D losses and the energy wheeled from the system, the Petitioner submitted the actual energy requirement for the period FY 2015-16.

Commission's Analysis

- A13: The Commission, in the MYT Order dated 4th September 2014, had set a T&D loss target of 3.00% for the Period from FY 2012-13 to FY 2015-16. The Commission observes that the Petitioner has failed to achieve the loss target in the year FY 2015-16. Accordingly, the Commission finds it prudent to adopt the T&D loss of 3.00% for FY 2015-16 and thus power procured in excess of normative loss level has been disallowed. The disallowed units work out to 101.40 MUs.
- A14: Based on the approved energy sales for Jharkhand area, approved T&D losses, the projected energy sales within West Bengal area and energy wheeled through DVC system, the energy requirement for the FY 2015-16 has been summarized in following table:

Table 10: Energy Requirement (MU) for FY 2015-16 as submitted by DVC & as approved by the Commission

Particulars	As submitted by Petitioner	As approved by Commission
Energy sales within the State of Jharkhand	10237.62	10252.94
Energy Sales within the state of WB	7248.80	7248.80
Total Energy Sales in DVC Area	17486.42	17501.74
Energy Wheeled	206.28	206.28
Overall Utilization	17692.70	17708.02
T&D Loss (MU)	664.39	547.67
T&D Loss (%)	3.62%	3.00%
Total Energy Requirement for DVC (MU)	18357.09	18255.69

Generation of power from own stations

Petitioner's Submission

A15: The Petitioner generates power from its own stations to meet part of its power requirements to be sold to its consumers in the Jharkhand and West Bengal area. The generating stations include both thermal and hydel stations.

A16: The actual generation available from own stations during the period FY 2015-16 has been summarized in the following tables

Table 11: Actual Own Generation (Ex - Bus) during FY 2015-16 (MU) as submitted by the Petitioner

Station	Net Ex-Bus Gen. (MU)
BTPS 'B'	1634.27
CTPS U#1 to 3	1993.28
DTPS U# 3 & 4	790.02
MTPS U#1 to 3	1914.16
MTPS U#4	339.10
HYDEL	185.60
MHS	107.28
PHS	67.78
THS	10.54
Sub Total	6856.43
MTPS U#5 & 6	2872.57
MTPS U#7&8	5882.55
CTPS U# 7&8	2592.60
DSTPS U # 1 & 2	4179.27
KTPS U# 1 & 2	3128.29
RTPS U # 1 & 2	354.41
(INFIRM)	
BTPS 'A' (INFIRM)	0.28
Sub Total	19009.97
GRAND TOTAL	25866.40

Commission's Analysis

A17: The actual generation from own sources for FY 2015-16 is in accordance with the relevant CERC Orders for the DVCs stations and same has been adopted by the Commission. The same is summarized in the following table:

Table 12: Actual Generation (MU) for FY 2015-16 as approved by the Commission

Station	Net Ex-Bus as approved by the Commission
BTPS 'B'	1634
CTPS U#1 to 3	1993
DTPS U# 3 & 4	790
MTPS U#1 to 3	1914

Station	Net Ex-Bus as approved by the Commission
MTPS U#4	339
HYDEL	186
MHS	107
PHS	68
THS	11
Sub Total	6856.4
MTPS U#5 & 6	2873
MTPS U#7&8	5883
CTPS U# 7&8	2593
DSTPS U # 1 & 2	4179
KTPS U# 1 & 2	3128
RTPS U # 1 & 2 (INFIRM)	354
BTPS 'A' (INFIRM)	0
Sub Total	19009.97
GRAND TOTAL	25866.40

Power Purchase from Central Sector Generating Stations (CSGS) and other sources

Petitioner's Submission

- A18: The Petitioner submitted that it is also purchasing power from CSGS and other sources viz. NTPC, NHPC, PTC & other sources (excluding net power purchased under Unscheduled Interchange mechanism) to meet the energy requirements in the DVC area.
- A19: Further, during the period FY 2015-16, the Petitioner also purchased & sold power through the Unscheduled Interchange (UI) mechanism.

Commission's Analysis

- A20: After meeting the energy requirement from own generation, the Commission has determined the balance energy requirement to be met through purchase of power from CSGS and other sources.
- A21: The Petitioner has failed to achieve the T&D loss target for FY 2015-16. Accordingly, the Commission has disallowed power procurement in excess of normative loss level so that the inefficiencies of the Petitioner are not passed on to the consumers. The disallowed units for FY 2015-16 worked out to 101.40 MU.
- A22: In order to disallow power procured in excess of normative loss level, the Commission has, first, disallowed the power procured through the UI mechanism to the extent of difference in power procured based on actual and normative T&D loss since purchase through UI indicates inefficiency in forecasting and scheduling on behalf of the Licensee and such inefficiency cannot be passed on to the consumer. After such disallowance of power procured through UI mechanism, the Commission has then adopted the Merit Order Dispatch principle and the Commission has disallowed the purchase of energy

from generating stations (except hydro) having the highest variable cost per unit among all the CSGS and other sources from where DVC procures power.

A23: The following table summarizes the station-wise net power purchase as submitted by the Petitioner and as approved by the Commission for the period FY 2015-16.

Table 13: Station-wise Power Purchase (MU) for FY 2015-16 as submitted by Petitioner & as approved by the Commission

Source	As submitted by Petitioner	As approved by Commission
NHPC		
Rangit	32.77	32.77
Teesta- V	220.71	220.71
NTPC*		
FSTPS I & II	66.58	20.31
FSTPS III	210.39	0.00
KHTPS I	31.62	31.62
KHTPS II	69.86	69.86
TSTPS I	57.77	57.77
PTC		
Chukha	182.47	182.47
Kurichu	19.74	19.74
Tala	178.10	178.10
MPL	1583.47	1583.47
Solar Energy	56.51	56.51
UI	-155.26	0.00
Total energy	2554.71	2453.31

Energy Balance

A24: Based on the energy requirement and energy availability from own generation, T&D losses and power purchase from CSGS and other sources, the energy balance for FY 2015-16 as submitted by the Petitioner and as per Commission's analysis has been summarized in the following table:

Table 14: Energy Balance (MU) for FY 2015-16 as per Petitioner's Submission & as approved by the Commission

	As submitted by Petitioner	As approved by Commission
A. Energy Requirement		
Energy sales within the State of Jharkhand	10237.62	10252.94
Energy Sales within the state of WB	7248.80	7248.80
Total Energy Sales in DVC Area	17486.42	17501.74
Energy Wheeled	206.28	206.28
Overall Utilization	17692.70	17708.02
T&D Loss (MU)	664.39	547.67
T&D Loss (%)	3.62%	3.00%
Total Energy Requirement for DVC	18357.09	18255.69

	As submitted by Petitioner	As approved by Commission
B. Energy Availability		
Own generation – Firm sources	25326.11	25326.11
Thermal	185.60	185.60
Hydel	25511.71	25511.71
Own Generation – Infirm sources	354.69	354.69
Net Power Purchase (incl. UI)	2554.71	2453.31
Energy recd. For wheeling	260.49	260.49
Less: Energy sold to other licensees	10324.51	10324.51
Total Energy Available for DVC	18357.09	18255.69

Cost of own generation (input cost from CERC Orders) for DVC

Petitioner's Submission

A25: DVC constituted under the DVC Act, 1948, is a PSU as envisaged under Section 79 (1) (a) of the Electricity Act, 2003, and the tariff for generation of electricity is to be decided by the CERC. Accordingly, cost of generation for DVC as a whole from own stations has been taken as approved by the CERC in its relevant Orders.

A26: Further, the effect of variation in Fuel Price Adjustment (FPA) in energy charges has also been built in the own cost of generation in accordance with the formula prescribed by the CERC.

Commission's Analysis

A27: The Commission has taken note that the CERC has issued final Tariff Orders for the following stations:

Table 15: Date of Issue of Tariff Order considered for true-up for FY 2015-16

Station	Date of Tariff order
BTPS 'B'	19.05.2017
CTPS U# 1,2,3	23.09.2016
DTPS U # 3,4	20.07.2017
MTPS U#1 to 3	31.08.2016
MTPS U#4	20.09.2016
MHS	20.09.2016
PHS	20.09.2016
THS	23.09.2016
T&D System	29.09.2017
MTPS U#5 & 6	16.03.2017
MTPS U# 7 & 8	03.10.2016
CTPS U# 7&8	17.02.2017
DSTPS U # 1 & 2	17.03.2017
KTPS U # 1 & 2	28.02.2017

- A28: The Commission after scrutinizing the information made available by the Petitioner and after perusal of the above CERC Orders has adopted the cost of own power generation from thermal & hydel stations for DVC for the period FY 2015-16 as approved by CERC in its relevant Tariff Orders.
- A29: The Commission shall take into consideration any changes in the cost of own generation and revise the ARR to the extent of changes in the input cost, due to issuance of Final/True-up Orders of Petitioner's generating stations by the CERC for the period FY 2015-16.
- A30: The cost of own power generating stations as submitted by the Petitioner and as adopted by the Commission from the aforementioned CERC Orders for the period FY 2015-16 has been summarized in the following table:

Table 16: Cost of own power generation (Rs. Cr.) for FY 2015-16 as submitted by Petitioner & as adopted by the Commission based on the relevant CERC orders

	As submitted by Petitioner	As approved by Commission
Energy Charge	3562.97	3562.97
Fixed Charge	3194.72	3075.87
Own Generation Cost	6757.69	6638.85

- A31: The detailed station-wise computation of cost of own power generating stations as approved by the Commission are attached in **Appendix -I**.

Power purchase cost for DVC (Other than own generation cost) and Transmission charges

Petitioner's Submission

- A32: The Petitioner submitted the actual power purchase cost from CSGS & other sources during FY 2015-16 has been based on the actual power purchase bills received from the generators. Further, the impact of final True-up Orders in respect of the CSGS and other sources has been taken into consideration.
- A33: The Petitioner has also claimed Rs 9362.34 Lakhs and Rs 16.00 Lakhs towards transmission charges and amount paid to ERPC fund respectively.

Commission's Analysis

- A34: As stated earlier in this Order, the Commission has adopted the merit order principle in approving the power purchase quantum and consequently the power purchase cost for FY 2015-16. Based on the total energy requirement and quantum of energy to be purchased from CSGS and other sources (other than own sources), the Commission has disallowed the purchase of energy from generating stations having the highest variable cost per unit among all the CSGS and other sources from where DVC procures power.

A35: Besides, the Petitioner has segregated the cost of RPO into West Bengal and Jharkhand based on the RPO requirements stipulated by the respective State Regulatory Commissions for FY 2015-16. Accordingly, the Commission also finds it prudent to segregate the cost of RPO for FY 2015-16 as per the RPO requirements stipulated by the respective Commissions and actual RPO compliance by the Petitioner.

A36: The Petitioner has submitted the following information with respect to RPO compliance in FY 2015-16.

Table 17: RPO status as submitted by the Petitioner

Components	Jharkhand	West Bengal	Share of Jharkhand
Solar (MU)	43.12	13.39	76.31%
Non-solar RECs	1832.00	1500.00	54.98%

A37: Based on above, the Commission has approved the cost towards RPO for the state of Jharkhand, as summarized in the following table:

Table 18: Cost towards RPO approved by the Commission (in Rs Lakhs)

Components	Actual cost incurred	Share of Jharkhand	Cost for Jharkhand
Solar	6193.96	76.31%	4726.77
Non-Solar REC	49.98	54.98%	27.48
Total Cost of RPO for Jharkhand			4754.25

A38: Thus, the net power purchase cost (including UI but other than own generation cost) has been approved for FY 2015-16 as per the following table:

Table 19: Source-wise power purchase cost for FY 2015-16 as submitted by Petitioner & as approved by the Commission

Source	As submitted by Petitioner			As approved by Commission		
	Net Energy (in MUs)	Cost (Rs. Lakhs)	Rate (Rs/ kWh)	Net Energy (in MUs)	Cost (Rs. Lakhs)	Rate (Rs/ kWh)
NHPC						
Rangit	32.77	1406.17	4.29	32.77	1406.17	4.29
Teesta- V	220.71	6043.73	2.74	220.71	6043.73	2.74
NTPC						
FSTPS I & II	66.58	2301.03	3.46	20.31	701.81	3.46
FSTPS III	210.39	9328.89	4.43	0.00	0.00	0.00
KHTPS I	31.62	1077.57	3.41	31.62	1077.57	3.41
KHTPS II	69.86	2302.34	3.30	69.86	2302.34	3.30
TSTPS I	57.77	1584.00	2.74	57.77	1584.00	2.74
PTC						
Chukha	182.47	3424.85	1.88	182.47	3424.85	1.88
Kurichu	19.74	408.79	2.07	19.74	408.79	2.07

Source	As submitted by Petitioner			As approved by Commission		
	Net Energy (in MUs)	Cost (Rs. Lakhs)	Rate (Rs/ kWh)	Net Energy (in MUs)	Cost (Rs. Lakhs)	Rate (Rs/ kWh)
Tala	178.10	3664.30	2.06	178.10	3664.30	2.06
MPL	1583.47	61965.65	3.91	1583.47	61965.65	3.91
Total	2653.46	93507.33		2396.80	82579.22	

A39: The Commission also approves Rs 9362.34 Lakhs and Rs 16.00 Lakhs towards transmission charges and amount paid to ERPC fund respectively, after verifying the same from audited accounts.

Other Fixed cost components

Water and Pollution Cess:

Petitioner's Submission

A40: The Petitioner has claimed water cess of Rs. 2.61 Cr. for FY 2015-16.

Commission's Analysis

A41: The Commission allows the water and pollution cess, a statutory obligation, as claimed by the Petitioner based on the information in the audited accounts and prudence check.

Non-Tariff Income:

Petitioner's Submission

A42: The Petitioner submitted non-tariff income pertaining to revenue collected through delayed payment surcharge for DVC as a whole, for FY 2015-16 as Rs.28.27 Cr.

Commission's Analysis

A43: The Commission, approves the non-tariff income pertaining to delayed payment surcharge as Rs.28.27 Cr for FY 2015-16, as per audited annual accounts of the respective year.

Tariff Filing and Publication Expenses of CERC as well as JSERC:

Petitioner's Submission

A44: The Petitioner has submitted that tariff filing and publication expenses for DVC pertaining to the Jharkhand area are Rs.0.31 Cr for FY 2015-16. Besides, Petitioner has also claimed tariff filing and publication expense of CERC for FY 2015-16.

Commission's Analysis

A45: The Commission scrutinized the actual receipts for tariff filing fees and publication expenses pertaining to JSERC and CERC. Accordingly, the Commission has approved

the costs pertaining to tariff filing and publication expenses as per the submission made by the Petitioner and same has been summarized in following table:

Table 20: Tariff Filing and Publication Expenses (Rs. Cr.) for FY 2015-16 as submitted by Petitioner and as approved by the Commission

	As submitted by Petitioner	As approved by Commission
Tariff Filing and Publication expense for JSERC	0.31	0.31
Tariff Filing and Publication expense for CERC	4.64	4.64

Allocation of Costs for DVC as a whole to Jharkhand Area

Petitioner's Submission

A46: The Petitioner has submitted that the input costs including own generation cost, power purchase cost, other input cost, interest on working capital, etc. cannot be segregated into the cost pertaining to Jharkhand and West Bengal area as DVC operates as a single entity. Thus, the Petitioner has submitted that, for the purpose of computing retail tariffs pertaining to Jharkhand area, the input cost of DVC be bifurcated in the ratio of the energy sales in Jharkhand area to the total sales in the Damodar Valley area.

Commission's Analysis

A47: The Commission, in the previous Orders, had directed the petitioner to submit the details of segregated cost of supply for Jharkhand and West Bengal area. However, the Petitioner clarified that the transmission and distribution system for the whole Damodar Valley area is an integrated one and cannot be segregated for Jharkhand and West Bengal. Thus, in absence of any other methodology for segregation of input costs, the Commission had adopted the methodology proposed by the Petitioner i.e. segregating the input cost of DVC in the ratio of the energy sales in Jharkhand area to the total sales in the Damodar Valley area. The Commission has continued with the same methodology in this Order as well.

A48: The following table summarizes the input cost allocated to the Jharkhand area for the period FY 2015-16 as submitted by the Petitioner and as approved by the Commission.

Table 21: Input Cost (Rs. Cr.) allocated for Jharkhand Area for FY 2015-16 as per Petitioner's submission and as per Commission's analysis

	As submitted by Petitioner	As approved by Commission
Own Generation cost adopted from relevant CERC Orders	6757.69	6638.85
Power Purchase cost	1029.36	919.58
CERC Tariff filing and publication expense for CERC	4.64	4.64
Water and Pollution Cess	2.61	2.61
Sub-Total	7794.29	7565.67
Less: Non-Tariff Income	28.27	28.27

	As submitted by Petitioner	As approved by Commission
Total ARR for DVC	7766.03	7537.40
Ratio of sales in Jharkhand Area	0.59	0.59
Allocated input cost to Jharkhand Area	4546.71	4415.59

Interest on Working Capital

Petitioner's Submission

A49: The Petitioner has submitted that the Interest on Working Capital has been determined in accordance with the applicable provisions of JSERC Distribution Tariff Regulations, 2010, according to which, the Interest on Working Capital shall be as given below:

“Interest on Working capital is equal to,

(a) One-twelfth of the amount of Operation & Maintenance expenses for such financial year; plus

(b) Maintenance spares @ 1% of Opening GFA; plus

(c) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariff; minus

(d) Amount held as security deposits under clause (a) and clause (b) of subsection (1) of Section 47 of the Act from consumers and distribution system users; minus

(e) One month equivalent of cost of power purchased, based on the annual power procurement plan.”

A50: Accordingly, the Petitioner submitted the interest on working capital required for power purchase for the DVC as a whole (i.e. inclusive of Jharkhand & West Bengal Area) to be Rs.104.89 Cr for FY 2015-16 respectively.

Commission's Analysis

A51: As per the ‘Distribution Tariff Regulations, 2010’, Interest on Working capital shall be calculated on the basis of the following:

(a) One-twelfth of the amount of Operation and Maintenance expenses for such financial year; plus

(b) Maintenance spares at 1% of Opening GFA; plus

(c) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariff; minus

(d) Amount held as security deposits under clause (a) and clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution System Users; minus

(e) One month equivalent of cost of power purchased, based on the annual power procurement plan.

A52: However, since the O&M cost and other expenses of the Petitioner are included in the cost of generation of power from its own stations, applying the aforementioned methodology as per the ‘Distribution Tariff Regulations, 2010’ is not possible.

A53: Hence, the Commission has adopted the same methodology as described in the previous Tariff Order for FY 2012-13 dated 22nd November 2012. The relevant extracts of the same are discussed below:

“7.40 However, the Commission noticed that the GFA and O&M cost of the Petitioner cannot be segregated into that of pertaining to generation and transmission business and that for distribution and retail business at present. Hence, applying the aforementioned methodology for computation of IWC is not possible. Therefore, the Commission decided to continue with the methodology as applied by the Commission for trueing up the ARR for FY 2006-07 to FY 2011-12 in this Order.”

“7.41 Accordingly, the Commission has estimated the working capital requirement for Jharkhand area to be 1% of the projected revenue from sale of power in the Jharkhand area. The interest on working capital has been estimated at the prevailing State Bank of India (SBI) Prime Lending Rate (PLR) as on April 1st of the respective year.....”

A54: The Commission has considered Interest Rate equal to SBI PLR as on 1st April of the corresponding year.

A55: Thus, adopting the aforementioned methodology, the Commission arrived at the Interest on Working Capital as shown in the following table:

Table 22: Interest on Working Capital (Rs Cr) for Jharkhand Area for FY 2015-16 as approved by the Commission

	As approved by Commission
Revenue from sales in Jharkhand	4,956.42
Working Capital Requirement in Jharkhand Area (@ 1% of Revenue from sale of power)	49.56
Interest Rate (%)	14.75%
Interest on Working Capital for Jharkhand Area	7.31

Interest on Security Deposit

Petitioner's Submission

A56: The Petitioner had considered the Interest on security deposit to be Rs 1.39 Cr for FY 2015-16.

Commission's Analysis

A57: The Distribution Tariff Regulations, 2010, allow the Petitioner to recover the interest on security deposits through the ARR. Accordingly, the Commission approves the interest on security deposits as submitted by the Petitioner, after verifying the same from the audited accounts.

Revenue from Sale of Power in the Jharkhand Area

Petitioner's Submission

A58: The Petitioner had initially submitted the revenue realized from sale of power within the Jharkhand area to be Rs. 4275.83 Cr for FY 2015-16.

A59: However, in response to the second discrepancy note dated 28th July 2017, the Petitioner had submitted revised revenue for Jharkhand area for FY 2015-16 which amounts to Rs. 4,956.24 Crore.

Commission's Analysis

A60: JSERC Distribution Tariff Regulations, 2010 stipulate collection efficiency target of 100% for all the distribution licensees operating in the state of Jharkhand. Therefore, the ARR has to be determined based on accrual basis i.e. considering revenue from sale of power on revenue billed (or assessed) basis and not on realized basis

A61: Accordingly, the Commission directed the Petitioner to submit audited figures of revenue assessed due to sale of power in the states of Jharkhand as well as West Bengal.

A62: The Commission after scrutinizing the information submitted by the Petitioner and after verifying through the annual accounts and prudence check, approves the actual revenue from sale of power in Jharkhand area as Rs. 4,956.42 Crore for FY 2015-16.

Summary of True-up for Jharkhand Area for FY 2015-16

A63: The following table summarizes the True-up up ARR for Jharkhand area as approved by the Commission for FY 2015-16:

Table 23: Summary of Trued-up ARR (in Cr) for Jharkhand Area for FY 2015-16 as approved by the Commission

S No	Station/item	Energy Charge (In Rs. lakh)	Fixed Charge (In Rs. lakh)
1	BTPS	35,713.49	18,254.81
2	CTPS	49,263.68	19,137.18
3	DTPS	21,763.37	12,781.27
4	MTPS 1 TO 3	35,706.10	20,902.88
5	MTPS 4	7,266.09	11,005.35
6	HYDEL	-	5,845.76
7	T&D	-	52,479.37
8	MTPS 5 & 6	18,327.62	13,795.19
9	MTPS 7 & 8	61,383.84	52,582.38
10	CTPS 7 & 8	1,940.76	1,561.67
11	DSTPS 1 & 2	61,483.93	51,754.82
12	KTPS U # 1 & 2	56,301.50	47,486.39
13	RTPS U # 1 & 2	7,141.46	-
14	BTPS 'A'	5.66	-
15	POWER PURCHASE COST (Including UI, Transmission & System Operation Charges but Excluding Cost of Solar Power Purchase)	91,957.56	-
16	Tariff filling fees & publication expenses to CERC	-	463.94
17	Water cess	-	260.62
18	Non Tariff Income (NTI)	2,826.67	-
19	Total (Sl. No. 1 to 17 - Sl 18)	445,428.37	308,311.64
20	Ratio of sales in Jharkhand area	58.58%	58.58%
21	GROSS ARR (Sl. No. 19 x Sl. No. 20)	260,942.67	180,616.38
22	Cost of Solar Power Purchased to meet the solar RPO in the state of Jharkhand	4,754.25	-
23	Interest on Working Capital	-	731.07
24	Interest on security deposit	-	138.79
25	Actual Tariff Filing Fees & Publication Expenses in JSERC		30.68
26	Net ARR for Jharkhand Area (Sl. No. 21+22+23+24+25)	265,696.92	181,516.92
27	TOTAL ARR (Jharkhand)	447,213.84	

Cumulative revenue gap/surplus till FY 2015-16

A64: In view of the analysis in the aforementioned chapters, the cumulative gap/ (surplus) as submitted by the Petitioner and approved by the Commission is summarized in the following tables:

Table 24 : Cumulative revenue gap/ (Surplus) for Jharkhand area till FY 2015-16 as submitted by the Petitioner

Particulars	Amount (In Rs. Crs.)
Total ARR for Jharkhand	4703.45
Revenue realized from Jharkhand Consumers for electricity consumption during FY 2015-16	4956.42
Revenue Gap 2015-16	-252.97
Revised Revenue Gap accrued during FY 2006-07 to 2014-15	5914.95
Further receipt during FY 2015-16 from JBVNL under UDAY scheme as one time settlement of dues accrued during FY 2006-07 to 2014-15	3631.19
Revenue gap pending for adjustment	2283.76
Carrying Cost from 2006-07 to 2015-16	3400.83
Net Receivable in 2015-16	5431.62

Table 25: Cumulative revenue gap/ (Surplus) for Jharkhand area till FY 2015-16 as approved by the Commission

Particulars	Amount (In Rs. Crs.)
Total ARR for Jharkhand for FY 2015-16	4472.14
Revenue at existing tariffs for FY 2015-16	4956.42
Revenue Gap/ (surplus) for FY 2015-16	(484.28)
Opening Gap for FY 2015-16 as per Table 8	(1287.39)
Add: Revenue Gap/ (Surplus) for the year	(484.28)
Closing Gap / (Surplus)	(1771.67)
SBI PLR	14.75%
Carrying Cost on Opening Gap	(189.89)
Interest on Additions	(35.72)
Total Carrying Cost	(225.61)
Closing Gap / (surplus) including carrying cost	(1997.27)

A7 : Business Plan and Annual revenue requirement for MYT period from FY 2016-17 to FY 2020-21

- 7.1 As per Regulation 5.6 & Regulation 12 of the JSERC (Distribution Tariff) Regulations, 2015, every licensee in the State has to file a Business Plan for the entire control period i.e. FY 2016-17 to FY 2020-21 before start of the control period for approval of the Commission. The Business plan should include detailed capital investment plan, sales/demand forecast, power procurement plan and targets for controllable items such as distribution losses, collection efficiency, quality of supply etc. Subsequently, the licensee should file the Multi-Year Tariff Petition for determination of ARR for entire control period and Tariff for FY 2015-16.
- 7.2 As mentioned in Para 1.9 of this Order, DVC is a public sector undertaking involved in inter-state sale of power and transmission. Accordingly, CERC approves the capital cost, ARR and tariff for its generating stations as well as composite business of transmission and distribution (wires). This is considered as the input cost of DVC for determination of retail tariff by the State Commission in whose jurisdiction the licensed area of supply lies.
- 7.3 In view of above, the DVC has not submitted separate business plan petition as the capital expenditure plan is approved by CERC as part of its generation and composite inter-state transmission tariff. However, the projections for the other components forming the business plan i.e. sales, power purchase, distribution losses, etc have been submitted by DVC for the entire control period in its MYT Petition and same has been considered by this Commission.
- 7.4 This section contains a summary of the projections for various cost components of the ARR for the MYT period from FY 2016-17 to FY 2020-21 as submitted by the Petitioner in its petition and approval by the Commission.

Consumers, Connected Load and Sales

Petitioner's Submission

- 7.5 The Petitioner has submitted that it is supplying power in bulk to the WBSEDCL and JSEB and majority of HT consumers falling in DVC area generally at 33 kV and above voltage level. The Petitioner submitted that depending on the past growth rate of sales, new power application status and the probable addition that is going to take place in coming years, it has made the projections for consumers, connected load and sales for its command area within the territorial boundary of State of Jharkhand.
- 7.6 Following table summarizes the projections made by the Petitioner for the area falling under the state of Jharkhand for the control period from FY 2016-17 to FY 2020-21:

Table 26: Projected number of consumers for MYT control period

Consumer Category	FY 2016 -17	FY 2017 - 18	FY 2018 - 19	FY 2019 -20	FY 2020 - 21
LT (Domestic)	1120	1198	1282	1372	1468
LT (Commercial)	403	431	461	493	527
33 KV	138	142	145	150	153
132 KV	9	9	9	9	9
132 KV TRACTION	13	14	14	14	14
220 KV	1	2	2	2	2
TOTAL	1684	1796	1913	2040	2173

Table 27: Projected connected load for MYT control period

Consumer Category	FY 2016-17 CONNECTED LOAD (KW)	FY 2017-18 CONNECTED LOAD (KW)	FY 2018-19 CONNECTED LOAD (KW)	FY 2019-20 CONNECTED LOAD (KW)	FY 2020-21 CONNECTED LOAD (KW)
LT (Domestic)	4480.00	4793.60	5129.15	5488.19	5872.37
LT (Commercial)	2064.00	2204.00	2353.80	2514.09	2685.59
Sub-Total	6544.00	6997.60	7482.95	8002.28	8557.96
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
	CONNECTED LOAD (MVA)	CONNECTED LOAD (MVA)	CONNECTED LOAD (MVA)	CONNECTED LOAD (MVA)	CONNECTED LOAD (MVA)
33 KV	1407.23	1450.00	1500.00	1548.25	1600.00
132 KV	496.50	530.00	535.00	560.00	600.00
132 KV TRACTION	220.00	230.00	240.00	245.00	260.00
220 KV	70.00	75.00	80.00	90.00	100.00
Sub-Total	2193.73	2285.00	2355.00	2443.25	2560.00

Table 28: Projected sales (MU) for MYT control period

Consumer Category	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
LT (Domestic)	23.55	25.20	26.96	28.85	30.87
LT (Commercial)	10.85	11.58	12.37	13.21	14.12
Sub-Total	34.40	36.78	39.33	42.06	44.98
33 KV	7613.70	7975.88	8357.59	8756.00	9170.11
132 KV	2503.30	2722.52	2968.70	3236.86	3499.13
132 KV TRACTION	581.69	604.96	629.16	653.70	3.00
220 KV	298.70	358.44	430.13	511.86	614.23
Sub-Total	10997.39	11661.80	12385.58	13158.42	13963.31

7.7 Following table summarizes the projections made by the Petitioner for the area falling under the state of Jharkhand for the control period from FY 2016-17 to FY 2020-21:

Table 29: Total sales (MU) of DVC as projected by the Petitioner for the Control Period

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Jharkhand	11031.79	11698.58	12424.91	13200.48	14008.29
West Bengal	8115.05	8843.76	9644.43	10525.25	11495.09
Total	19146.84	20542.34	22069.34	23725.73	25503.38

Commission's Analysis

7.8 The Petitioner has provided the revised projections for consumers, load and sales on 28th August, 2017 for FY 2016-17, based on actuals.

7.9 For FY 2016-17, the Commission has approved the number of consumers, Load and Sales as submitted by the Petitioner on 28th August 2017. For FY 2017-18 to FY 2020-21 the Commission has approved the number of consumers, Connected Load and units sold considering the past trends based on audited accounts.

7.10 The below tables represents the numbers as approved by the Commission:-

Table 30: Approved number of consumers for MYT control period

Consumer Category	FY 2016 -17	FY 2017 - 18	FY 2018 - 19	FY 2019 -20	FY 2020 - 21
LT (Domestic)	4	1198	1282	1372	1468
LT (Commercial)	0	431	461	493	527
33 KV	132	133	134	135	136
132 KV	9	9	9	9	9
132 KV TRACTION	13	13	13	13	13
220 KV	2	2	2	2	2
TOTAL	160	1786	1901	2025	2156

Table 31: Approved connected Load for MYT control period

Consumer Category	FY 2016 -17	FY 2017 - 18	FY 2018 - 19	FY 2019 -20	FY 2020 - 21
	CONNECTED LOAD (KW)	CONNECTED LOAD (KW)	CONNECTED LOAD (KW)	CONNECTED LOAD (KW)	CONNECTED LOAD (KW)
LT (Domestic)	0.00	4793.60	5129.15	5488.19	5872.37
LT (Commercial)	0.00	2204.00	2353.80	2514.09	2685.59
Sub-Total	0.00	6997.60	7482.95	8002.28	8557.96
HT category	CONNECTED LOAD (MVA)	CONNECTED LOAD (MVA)	CONNECTED LOAD (MVA)	CONNECTED LOAD (MVA)	CONNECTED LOAD (MVA)
33 KV	1370.35	1463.37	1562.70	1668.78	1782.06
132 KV	316.50	337.98	360.93	385.43	411.59
132 KV TRACTION	249.00	265.90	283.95	303.23	323.81
220 KV	75.00	80.09	85.53	91.33	97.53
Sub-Total	2010.85	2147.35	2293.11	2448.77	2614.99

Table 32: Approved sales for MYT control period (in MU)

Consumer Category	FY 2016 -17	FY 2017 - 18	FY 2018 - 19	FY 2019 -20	FY 2020 - 21
LT (Domestic)	44.01	25.20	26.96	28.85	30.87
LT (Commercial)	0.00	11.58	12.37	13.21	14.12
Sub-Total	44.01	36.78	39.33	42.06	44.98
33 KV	7443.48	7815.65	8206.44	8616.76	9047.60
132 KV	1860.70	1953.74	2051.42	2154.00	2261.70
132 KV TRACTION	704.31	739.52	776.50	815.32	856.09
220 KV	325.44	341.71	358.80	376.74	395.58
Sub-Total	10333.93	10850.63	11393.16	11962.82	12560.96
Total	10377.94	10896.84	11441.68	12013.77	12614.45

Energy Requirement

Petitioner's Submission

- 7.11 The Petitioner submitted that it has arrived at the energy balance by considering energy available from different sources and utilization thereof by the firm consumers in respect of entire operational area of DVC. The Petitioner also submitted that the T&D losses as computed here are aggregate T&D loss of the entire DVC area.
- 7.12 The Petitioner submitted that as it is supplying power in bulk to the WBSEDCL & JSEB and majorly HT consumers falling in the Damodar valley area, it incurs very low T&D losses. The T&D losses projected by the Petitioner are 3.52% for FY 2016-17, 3.47% for FY 2017-18, 3.41% for FY 18-19, 3.37% for FY 19-20 and 3.33% for FY 2020-21.
- 7.13 The Petitioner also submitted the projected energy sales in the West Bengal area and the projected energy wheeled from its inter-state transmission system for the purposes of computation of the energy requirement for the entire Damodar Valley area.
- 7.14 Based on the total projected energy sales in the Damodar Valley area, the T&D losses and the energy wheeled from the system, the Petitioner submitted the energy requirement for the MYT period, which has been summarized in the following table:

Table 33: Energy Requirement (MU) for control period as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Energy Requirement					
Energy sale within the state of Jharkhand	11,031.79	11,698.58	12,424.91	13,200.48	14,008.29
Energy sale within the state of West Bengal	8,115.32	8,843.76	9,644.43	10,525.25	11,495.09
Total energy sale within the DVC area	19,147.11	20,542.34	22,069.34	23,725.73	25,503.38
Energy wheeled	270.00	260.00	270.00	280.00	275.00
Overall Utilization	19,417.11	20,802.34	22,339.34	24,005.73	25,778.38
T&D Loss (%)	3.52%	3.47%	3.41%	3.37%	3.33%
T&D Loss (MU)	709.18	746.96	788.83	837.60	888.33
Total Energy requirement in DVC	20,126.28	21,549.30	23,128.17	24,843.33	26,666.71

Commission's Analysis

- 7.15 As per Regulation 5.23 of the Distribution Tariff Regulations, 2015, the licensee shall be allowed to operate at below 5% audited distribution loss without any incentive/ penalty mechanism. Accordingly, the Commission allows the distribution loss trajectory as proposed by the Petitioner.
- 7.16 Further, to estimate the energy requirement for MYT period, the Commission has considered the energy sales to the West Bengal area and energy wheeled as per the submission made by the Petitioner, subject to true up based on audited annual accounts in the subsequent retail tariff Orders.
- 7.17 Based on the approved energy sales for Jharkhand area, approved T&D losses, the projected energy sales within West Bengal area and energy wheeled through DVC system, the energy requirement for the MYT period from FY 2016-17 to FY 2020-21 has been summarized in following table.

Table 34: Approved energy requirement (MU) for the control period

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Energy sale within the state of Jharkhand	10,377.94	10,887.41	11,432.49	12,004.88	12,605.94
Energy sale within the state of West Bengal	8,115.32	8,843.76	9,644.43	10,525.25	11,495.09
Total energy sale within the DVC area	18,493.26	19,731.17	21,076.92	22,530.13	24,101.03
Energy wheeled	270.00	260.00	270.00	280.00	275.00
Overall Utilization	18,763.26	19,991.17	21,346.92	22,810.13	24,376.03
T&D Loss (%)	3.52%	3.47%	3.41%	3.37%	3.33%
T&D Loss (MU)	583.46	621.27	663.02	708.18	756.48
Total Energy requirement in DVC	19,448.56	20,709.00	22,100.71	23,606.02	25,216.03

Generation of Power from own stations*Petitioner's Submission*

- 7.18 The Petitioner generates power from its own stations to meet the power requirements of its consumers in the Jharkhand and West Bengal area. The generating stations include both thermal and hydel stations. The power generation from own stations during the MYT period has been summarized in the following tables.

Commission's Analysis

- 7.19 The Commission approves the power generated from own stations as submitted by the Petitioner in its Petition, subject to True-up based on audited accounts.

Table 35: Generation of power (MU) from own stations during FY 2016-17

Station	Capacity (MW)	FY 2016-17 (Petitioner's Submission)				FY 2016-17 (Commission's Analysis)			
		Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers	Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers
MTPS 5,6	500	2396.94	1459.39	937.55	39.11%	2396.94	1459.39	937.55	39.11%
MTPS 7,8	1000	5810.07	2585.20	3224.87	55.50%	5810.07	2585.20	3224.87	55.50%
CTPS 7,8	500	2670.55	2670.55	0.00	0.00%	2670.55	2670.55	0.00	0.00%
DSTPS 1,2	1000	5395.06	1667.87	3727.19	69.09%	5395.06	1667.87	3727.19	69.09%
KTPS 1,2	1000	3320.04	1459.39	1860.65	56.04%	3320.04	1459.39	1860.65	56.04%
BTPS 'A'	500	83.90	33.56	50.34	60.00%	83.90	33.56	50.34	60.00%
RTPS 1	600	0.00	0.00	0.00	0.00%	0.00	0.00	0.00	0.00%
RTPS 2	600	856.01	392.34	463.67	54.17%	856.01	392.34	463.67	54.17%

Table 36: Generation of power (MU) from own stations during FY 2017-18

Station	Capacity (MW)	FY 2017-18 (Petitioner's Submission)				FY 2017-18 (Commission's Analysis)			
		Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers	Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers
MTPS 5,6	500	2656.29	1734.72	921.57	34.69%	2656.29	1734.72	921.57	34.69%
MTPS 7,8	1000	5690.69	3072.92	2617.76	46.00%	5690.69	3072.92	2617.76	46.00%
CTPS 7,8	500	2637.18	2637.18	0.00	0.00%	2637.18	2637.18	0.00	0.00%
DSTPS 1,2	1000	5491.71	1982.53	3509.18	63.90%	5491.71	1982.53	3509.18	63.90%
KTPS 1,2	1000	5029.52	1734.72	3294.80	65.51%	5029.52	1734.72	3294.80	65.51%
BTPS 'A'	500	1857.67	991.27	866.40	46.64%	1857.67	991.27	866.40	46.64%
RTPS 1	600	2229.20	1362.99	866.21	38.86%	2229.20	1362.99	866.21	38.86%
RTPS 2	600	2229.20	1362.99	866.21	38.86%	2229.20	1362.99	866.21	38.86%

Table 37: Generation of power (MU) from own stations during FY 2018-19

Station	Capacity (MW)	FY 2018-19 (Petitioner's Submission)				FY 2018-19 (Commission's Analysis)			
		Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers	Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers
MTPS 5,6	500	2732.73	1791.61	941.12	34.44%	2732.73	1791.61	941.12	34.44%
MTPS 7,8	1000	5491.71	3173.70	2318.01	42.21%	5491.71	3173.70	2318.01	42.21%
CTPS 7,8	500	2579.85	2579.85	0.00	0.00%	2579.85	2579.85	0.00	0.00%
DSTPS 1,2	1000	5531.51	2047.55	3483.95	62.98%	5531.51	2047.55	3483.95	62.98%
KTPS 1,2	1000	5491.71	1791.61	3700.10	67.38%	5491.71	1791.61	3700.10	67.38%
BTPS 'A'	500	2905.04	1023.78	1881.26	64.76%	2905.04	1023.78	1881.26	64.76%
RTPS 1	600	2476.89	1407.69	1069.20	43.17%	2476.89	1407.69	1069.20	43.17%
RTPS 2	600	2476.89	1407.69	1069.20	43.17%	2476.89	1407.69	1069.20	43.17%

Table 38: Generation of power (MU) from own stations during FY 2019-20

Station	Capacity (MW)	FY 2019-20 (Petitioner's Submission)				FY 2019-20 (Commission's Analysis)			
		Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers	Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers
MTPS 5,6	500	2637.18	1831.08	806.10	30.57%	2637.18	1831.08	806.10	30.57%
MTPS 7,8	1000	5372.33	3243.62	2128.70	39.62%	5372.33	3243.62	2128.70	39.62%
CTPS 7,8	500	2656.29	2656.29	0.00	0.00%	2656.29	2656.29	0.00	0.00%
DSTPS 1,2	1000	5531.51	2148.52	3382.98	61.16%	5531.51	2148.52	3382.98	61.16%
KTPS 1,2	1000	5531.51	1879.96	3651.55	66.01%	5531.51	1879.96	3651.55	66.01%
BTPS 'A'	500	2905.04	1074.26	1830.77	63.02%	2905.04	1074.26	1830.77	63.02%
RTPS 1	600	3467.65	1438.70	2028.94	58.51%	3467.65	1438.70	2028.94	58.51%
RTPS 2	600	3467.65	1438.70	2028.94	58.51%	3467.65	1438.70	2028.94	58.51%

Table 39: Generation of power (MU) from own stations during FY 2020-21

Station	Capacity (MW)	FY 2020-21 (Petitioner's Submission)				FY 2020-21 (Commission's Analysis)			
		Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers	Ex Bus Generation	Less: Energy sold to other Licensee	Energy available to DVC's distribution facility	% generation for DVC's firm consumers
MTPS 5,6	500	2927.93	1855.79	1072.13	36.62%	2927.93	1855.79	1072.13	36.62%
MTPS 7,8	1000	5756.06	3287.40	2468.66	42.89%	5756.06	3287.40	2468.66	42.89%
CTPS 7,8	500	2846.03	2846.03	0.00	0.00%	2846.03	2846.03	0.00	0.00%
DSTPS 1,2	1000	5926.61	2120.90	3805.71	64.21%	5926.61	2120.90	3805.71	64.21%
KTPS 1,2	1000	6054.53	1855.79	4198.73	69.35%	6054.53	1855.79	4198.73	69.35%
BTPS 'A'	500	3112.54	1060.45	2052.09	65.93%	3112.54	1060.45	2052.09	65.93%
RTPS 1	600	3535.84	1458.12	2077.72	58.76%	3535.84	1458.12	2077.72	58.76%
RTPS 2	600	3535.84	1458.12	2077.72	58.76%	3535.84	1458.12	2077.72	58.76%

Power Purchase from CSGS and other sources (Other than own generation sources)

Petitioner's Submission

- 7.20 The Petitioner has submitted that it has projected purchase of power from CSGS (NTPC, NHPC), PTC, MPL and other hydro generating stations as per the power purchase agreements with the generating stations. The power available on ex-bus of respective plants is subjected to transmission POC loss before entering the DVC system.
- 7.21 In order to fulfil the RPO obligation, the Petitioner has submitted that it has procured/ plans to procure bundled solar power from NTPC and has also purchased/ plans to purchase non-solar Renewable Energy Certificates (REC) from IEX and PXIL.

Commission's Analysis

7.22 After meeting the energy requirement from own generation, the Commission has projected the balance energy requirement to be met through purchase of power from CSGS and other sources during the MYT period from FY 2016-17 to FY 2020-21. Surplus power, if any, has been estimated to be sold at APPC of the Utility, subject to True-up based on audited accounts.

RPO Obligation

7.23 In addition to above, all distribution licensees supplying power in State of Jharkhand have to meet Renewable Purchase Obligation (RPO) i.e. they are obligated to purchase minimum specified percentage of energy requirement from renewable energy sources or purchase Renewable Energy Certificates (RECs) in lieu thereof to promote sustainability.

7.24 The Petitioner has submitted that in order to meet the solar purchase obligations balance quantum of solar power has been proposed to be met through REC.

7.25 The Petitioner has submitted that it is continuously publishing EOI in newspapers to identify suitable suppliers. Presently, in the absence of any PPA for non-solar power supply, DVC has proposed to purchase requisite non-solar REC during MYT period.

7.26 Based on the above source wise power purchase quantum as submitted by the Petitioner and that approved by the Commission for the MYT period has been summarized in following tables:-

Table 40: Station wise net power purchase (MU) for FY 2016-17 to FY 2020-21 approved by the Commission

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission
NHPC										
Rangit	32.13	32.13	32.02	32.02	31.95	31.95	31.88	31.88	31.81	31.81
Teesta	226.31	226.31	205.00	205.00	204.09	204.09	203.18	203.18	202.27	202.27
NTPC										
TSTPS - I	48.26	48.26	71.67	71.67	72.09	72.09	72.50	72.50	72.91	72.91
FSTPS-I & II	65.71	65.71	63.73	63.73	64.69	64.69	65.66	65.66	66.62	66.62
FSTPS- III	244.26	244.26	212.29	212.29	215.16	215.16	218.03	218.03	220.90	220.90
KhTPS-I	29.83	29.83	35.76	35.76	35.98	35.98	36.21	36.21	36.43	36.43
KhSTPS-II	60.54	60.54	70.09	70.09	71.02	71.02	71.94	71.94	72.87	72.87
PTC										
Chukha	208.49	208.49	168.96	168.96	167.40	167.40	165.84	165.84	164.29	164.29
Kurichu	37.39	37.39	56.92	56.92	51.73	51.73	48.26	48.26	46.80	46.80
Tala	179.26	179.26	177.60	177.60	176.54	176.54	175.47	175.47	174.41	174.41
MPL*	897.00	897.00	762.67	762.67	783.71	783.71	804.75	804.75	804.75	804.75
NTPC Solar Power	27.88	27.88	28.34	28.34	30.66	30.66	32.98	32.98	35.30	35.30

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission
NTPC - VVNL Solar Power	33.30	33.30	37.19	37.19	38.69	38.69	40.18	40.18	41.68	41.68
UI	-131.89	-131.89								
Less: surplus power		426.40		840.30		687.46		1237.32		1450.67
Total	1958.47	1532.07	1922.24	1081.94	1943.70	1256.24	1966.89	729.57	1971.03	520.36

Energy Balance

Petitioner's Submission

- 7.27 Based on the projected energy requirement and energy availability from own generation, T&D losses and power purchase from central generating stations, the energy balance for the Control period FY 2016-17 to FY 2020-21 as submitted by the Petitioner has been summarized in the following table.

Table 41: Energy Balance (MU) for control period as submitted by the Petitioner

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Energy Requirement					
Energy sale within the state of Jharkhand	11,031.79	11,698.58	12,424.91	13,200.48	14,008.29
Energy sale within the state of West Bengal	8,115.32	8,843.76	9,644.43	10,525.25	11,495.09
Total energy sale within the DVC area	19,147.11	20,542.34	22,069.34	23,725.73	25,503.38
Energy wheeled	270.00	260.00	270.00	280.00	275.00
Overall Utilization	19,417.11	20,802.34	22,339.34	24,005.73	25,778.38
T&D Loss (%)	3.52%	3.47%	3.41%	3.37%	3.33%
T&D Loss (MU)	709.18	746.96	788.83	837.60	888.33
Total Energy requirement in DVC	20,126.28	21,549.30	23,128.17	24,843.33	26,666.71
Energy Availability					
Own generation - Firm Sources					
Thermal	27,640.79	33,966.38	35,872.95	37,884.92	40,068.28
Hydel	254.00	260.00	250.00	270.00	275.00
Sub-Total		34,226.38	36,122.95	38,154.92	40,343.28
Own generation - Infirm Sources					
Net Power Purchase	2,209.79	1,922.24	1,943.70	1,966.89	1,971.03
Energy received for wheeling	290.00	280.00	285.00	300.00	295.00
Less: Energy sold to other licensee	10,268.30	14,879.31	15,563.48	15,578.47	15,942.61
Total Energy available to DVC	20,126.28	21,549.30	23,128.17	24,843.33	26,666.71

Commission's Analysis

- 7.28 Based on the approved energy requirement and energy availability from own generation, T&D losses and power purchase from central generating stations, the energy balance for the Control period FY 2016-17 to FY 2020-21 as approved by the Commission has been summarized in the following table.

Table 42: Energy Balance (MU) for control period as approved by the Commission

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Energy Requirement					
Energy sale within the state of Jharkhand	10,377.94	10,887.41	11,432.49	12,004.88	12,605.94
Energy sale within the state of West Bengal	8,115.32	8,843.76	9,644.43	10,525.25	11,495.09
Total energy sale within the DVC area	18,493.26	19,731.17	21,076.92	22,530.13	24,101.03
Energy wheeled	270.00	260.00	270.00	280.00	275.00
Overall Utilization	18,763.26	19,991.17	21,346.92	22,810.13	24,376.03
T&D Loss (%)	3.52%	3.47%	3.41%	3.37%	3.33%
T&D Loss (MU)	583.46	621.27	663.02	708.18	756.48
Total Energy requirement in DVC	19,448.56	20,709.00	22,100.71	23,606.02	25,216.03
Energy Availability					
Own generation - Firm Sources					
<i>Thermal</i>	27,640.79	33,966.38	35,872.95	37,884.92	40,068.28
<i>Hydel</i>	254.00	260.00	250.00	270.00	275.00
<i>Sub-Total</i>	27,894.79	34,226.38	36,122.95	38,154.92	40,343.28
Own generation - Infirm Sources					
Net Power Purchase	1,532.07	1,081.94	1,256.24	729.57	520.36
Energy received for wheeling	290.00	280.00	285.00	300.00	295.00
Less: Energy sold to other licensee	10,268.30	14,879.31	15,563.48	15,578.47	15,942.61
Total Energy available to DVC	19,448.56	20,709.00	22,100.71	23,606.02	25,216.03

Cost of own generation (input cost as per CERC Order) for DVC*Petitioner's Submission*

- 7.29 DVC being a statutory body controlled by the Central Government as envisaged under Section 79 (1) (a) of the Electricity Act, 2003, the tariff for generation of electricity from DVC's own stations is determined by the CERC. Accordingly cost of generation for DVC as a whole from own stations has been determined in accordance with the relevant CERC Orders.
- 7.30 While computing the ARR for the period FY 2016-17 to 2018-19, the petitioner considered the fixed cost of own generation & T&D system as per the latest Tariff Orders of its own generating stations issued by CERC. In case, Order of any station has not yet been issued by CERC, the fixed charges proposed in the tariff petitions for those stations filed before CERC has been considered. For the period FY 2019-20 and 2020-21 fixed costs had been worked out as per the trend analysis.
- 7.31 The petitioner has stated that availability of its own generating stations has been projected after duly taking care of fuel availability, plant operational history and their maintenance schedules. The same is tabulated below. The fixed charges projected to be recovered by these stations are guided by PAFY as per formula laid down in CERC regulations.

Table 43: Projected PAFY for Generating Stations / Units and TAFY for T&D System by Petitioner from FY 2016-17 to 2020-21

STATION	Projected PAFY / TAFY				
	2016-17	2017-18	2018-19	2019-20	2020-21
BTPS 'B'	45.01%	43.40%	42.47%	42.67%	43.24%
CTPS U#2,3	56.60%	43.32%	43.32%	43.18%	43.32%
DTPS	43.27%	51.80%	44.04%	45.73%	46.60%
MTPS U#1 to 3	62.17%	57.49%	61.48%	61.09%	62.39%
MTPS U#4	61.26%	57.95%	58.97%	64.85%	62.74%
MHS	80.00%	80.00%	80.00%	80.00%	80.00%
PHS	80.00%	80.00%	80.00%	80.00%	80.00%
THS	80.00%	80.00%	80.00%	80.00%	80.00%
T & D SYSTEM	98.00%	98.00%	98.00%	98.00%	98.00%
MTPS U# 5 & 6	70.14%	76.64%	78.56%	75.98%	83.46%
MTPS U# 7 & 8	80.00%	78.56%	76.16%	74.55%	79.35%
CTPS U# 7 & 8	77.00%	76.16%	74.73%	76.46%	81.40%
DSTPS U # 1 & 2	75.00%	76.16%	76.64%	76.46%	81.40%
KTPS U # 1 & 2	50.00%	70.60%	76.16%	76.46%	82.95%
BTPS 'A'	30.02%	55.00%	80.00%	79.81%	85.00%
RTPS U # 2	27.28%	55.00%	60.00%	79.81%	81.00%
RTPS U # 1	0.00%	55.00%	60.00%	79.81%	81.00%

Table 44: Projected Annual Fixed Charges by the Petitioner (Rs Lakhs)

STATION	2016-17	2017-18	2018-19	2019-20	2020-21
BTPS 'B'	27338.06	28080.09	28610.72	30108.47	31219.32
CTPS U# 1 to 3	22434.48	15572.48	16257.48	16931.45	17601.43
DTPS U # 4	16692.34	17171.71	16775.20	18240.70	18963.49
MTPS U#1 to 3	33354.26	34614.58	36206.46	37004.16	38112.66
\MTPS U#4	16288.93	14929.23	11893.13	12330.36	11451.72
MHS	3174.19	3327.41	3490.11	3633.35	3784.10
PHS	2683.86	2487.97	2576.61	2743.93	2832.00
THS	870.21	925.84	985.27	1036.31	1090.63
T&D SYSTEM	61399.50	67103.50	72058.60	77259.67	82442.26
MTPS U#5 & 6	46367.78	46358.38	47377.80	46346.07	46089.88
MTPS U# 7,8	106235.87	104110.68	101920.61	99498.77	97192.00
CTPS U# 7&8	54467.83	53086.68	53060.03	51977.72	51188.49
DSTPS U # 1 & 2	116104.88	113267.29	110416.69	107608.40	104765.13
KTPS U # 1 & 2	117669.11	119812.01	117573.67	119944.78	120919.87
BTPS 'A'	9641.51	99284.57	100848.27	102692.55	103975.67
RTPS U # 2	57933.89	56765.02	55596.15	54427.28	53258.41
RTPS U # 1	57933.89	56765.02	55596.15	54427.28	53258.41

- 7.32 The petitioner has stated that the tariff petition of BTPS 'A' is under preparation and will be submitted before CERC shortly. Therefore the fixed cost of BTPS 'A' is projected to be same as KTPS owing to their similar type of technology & capital cost. However, in the reply dtd. 7th June 2017 as submitted by DVC in compliance with the directives dtd. 4th May 2017 given by the Commission the input cost in respect of BTPS 'A' has been revised and considered as per the petition submitted before CERC on 13th June 2017 for determination of its generation tariff based on actual COD on 23rd February 2017.
- 7.33 The applicable fixed charges of BTPS 'A' for FY 2016-17 has been computed on pro rata basis from the COD. The projected COD of BTPS 'A' and no. of running days in a year have been tabulated below:

Table 45: Projected running days for the new station

Station	2016-17	2017-18	2018-19	2019-20	2020-21
BTPS 'A'	37	365	365	365	366

- 7.34 For projection of energy charge rates during the MYT period FY 2016-21 in respect of the thermal generating stations of DVC, yearly escalation factor of 4.78% has been considered based on the average of escalation factor for the period from 2009 to 2016 in respect of price of domestic coal and transportation as published biannually by CERC for bidding purpose. Additional clean environment Cess on coal as applicable from FY 2016-17 has been considered while projecting ECR.
- 7.35 For BTPS 'A', the petitioner has submitted the energy charge rates based on those of KTPS U# 1 & 2 in its petition dated 19th August 2015. However, the above rates have been revised in the petitioner's reply dated 7th June 2017.
- 7.36 Energy charge rates so projected, along with the energy charge payable by the firm consumer are tabulated as under:

Table 46: Computation of Projected Energy Charges for DVC's own thermal generating stations for FY 2016-17

Station	2016 -17		
	ECR (P/Kwh)	Projected Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	256.30	1719.48	44070.27
CTPS	314.70	1423.36	44793.11
DTPS	346.50	544.68	18873.16
MTPS U#1 to 3	250.50	2576.71	64546.46
MTPS U# 4	250.50	843.99	21141.82
MTPS U#5 & 6	248.10	937.55	23260.69
MTPS U# 7&8	241.10	3224.87	77751.67
CTPS U # 7,8	238.80	0.00	0.00
DSTPS U # 1 & 2	252.10	3727.19	93962.45
KTPS U # 1 & 2	228.80	1860.65	42571.74
BTPS 'A'	205.40	50.34	1034.02
RTPS U # 2	221.72	463.67	10280.58

RTPS U # 1	221.72	0.00	0.00
Total (Thermal)	254.59	17372.49	442285.98

Table 47: Computation of Projected Energy Charges for DVC's own thermal generating stations for FY 2017-18

Station	2017 -18		
	ECR (P/Kwh)	Projected Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	267.40	1640.61	43869.86
CTPS	328.50	684.94	22500.39
DTPS	361.50	684.37	24739.90
MTPS U#1 to 3	261.50	2345.62	61337.86
MTPS U# 4	261.50	789.39	20642.55
MTPS U#5 & 6	259.10	921.57	23878.00
MTPS U# 7&8	251.90	2617.76	65941.39
CTPS U # 7,8	249.40	0.00	0.00
DSTPS U # 1 & 2	263.30	3509.18	92396.66
KTPS U # 1 & 2	238.90	3294.80	78712.87
BTPS 'A'	213.62	866.40	18507.72
RTPS U # 2	230.59	866.21	19973.84
RTPS U # 1	230.59	866.21	19973.84
Total (Thermal)	258.01	19087.07	492474.89

Table 48: Computation of Projected Energy Charges for DVC's own thermal generating stations for FY 2018-19

Station	2018 -19		
	ECR (P/Kwh)	Projected Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	278.90	1595.08	44486.76
CTPS	342.90	684.94	23486.71
DTPS	377.20	557.34	21022.71
MTPS U#1 to 3	273.00	2542.96	69422.90
MTPS U# 4	273.00	806.31	22012.14
MTPS U#5 & 6	270.70	941.12	25476.19
MTPS U# 7&8	263.10	2318.01	60986.72
CTPS U # 7,8	260.50	0.00	0.00
DSTPS U # 1 & 2	275.10	3483.95	95843.56
KTPS U # 1 & 2	249.50	3700.10	92317.56
BTPS 'A'	222.16	1881.26	41794.18
RTPS U # 2	239.81	1069.20	25640.70
RTPS U # 1	239.81	1069.20	25640.70
Total (Thermal)	265.45	20649.47	548130.82

Table 49: Computation of Projected Energy Charges for DVC's own thermal generating stations for FY 2019-20

Station	2019 -20		
	ECR (P/Kwh)	Projected Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)

BTPS	291.10	1609.21	46844.07
CTPS	358.00	683.96	24485.69
DTPS	393.70	586.51	23091.08
MTPS U#1 to 3	285.00	2530.56	72120.93
MTPS U# 4	285.00	905.54	25807.98
MTPS U#5 & 6	282.70	806.10	22788.52
MTPS U# 7&8	274.90	2128.70	58518.01
CTPS U # 7,8	272.10	0.00	0.00
DSTPS U # 1 & 2	287.40	3438.84	98832.40
KTPS U # 1 & 2	260.60	3700.43	96433.14
BTPS 'A'	231.05	1858.70	42944.83
RTPS U # 2	249.40	2028.94	50602.80
RTPS U # 1	249.40	2028.94	50602.80
Total (Thermal)	274.84	22306.45	613072.26

Table 50: Computation of Projected Energy Charges for DVC's own thermal generating stations for FY 2020-21

Station	2020 -21		
	ECR (P/Kwh)	Projected Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	303.80	1632.76	49603.20
CTPS	373.80	684.94	25603.18
DTPS	410.90	599.25	24623.34
MTPS U#1 to 3	297.60	2587.62	77007.58
MTPS U# 4	297.60	868.33	25841.47
MTPS U#5 & 6	295.40	1072.13	31670.84
MTPS U# 7&8	287.20	2468.66	70899.95
CTPS U # 7,8	284.20	0.00	0.00
DSTPS U # 1 & 2	300.30	3805.71	114285.43
KTPS U # 1 & 2	272.20	4198.73	114289.54
BTPS 'A'	240.29	2052.09	49309.35
RTPS U # 2	259.38	2077.72	53892.15
RTPS U # 1	259.38	2077.72	53892.15
Total (Thermal)	286.38	24125.67	690918.17

Commission's Analysis

7.37 The Commission observes that the CERC has issued final Tariff Orders for the following stations.

Table 51: Date of Issue of Final Tariff Order

Station	Date of Tariff Order
BTPS 'B'	19.05.2017
CTPS U# 1,2,3	23.09.2016
DTPS U # 3,4	20.07.2017
MTPS U#1 to 3	31.08.2016
MTPS U#4	20.09.2016
MHS	20.09.2016

Station	Date of Tariff Order
PHS	20.9.2016
THS	23.09.2016
T&D System	29.09.2017(Order issued for the period 2009-10 to 2013-14)
MTPS U#5 & 6	16.03.2017
MTPS U# 7 & 8	03.10.2016
CTPS U# 7&8	17.02.2017
DSTPS U # 1 & 2	17.03.2017
KTPS U # 1 & 2	28.02.2017

7.38 The Commission has approved the annual fixed charges from FY 2016-17 to FY 2020-21 as per the tariff order issued by CERC for 2014 to 2019. The fixed charges for FY 2019-20 and FY 2020-21 have been approved based on 2.5% yearly escalation on the approved figures for FY 2018-19, subject to True-up based on CERC's Orders for the relevant years.

7.39 Further, the Commission has considered the projected running days as well as the PAFY same as that submitted by the Petitioner.

Table 52: Station-wise Annual Fixed Charges approved by the Commission for FY 2016-17

Stations	NAPAF (%)	PAFY (%)	AFC (Rs Lakhs)	CERC Formula (Applicable)	Total recoverable fixed charge (Rs Lakhs)	Share of firm consumer	Fixed charge recoverable from DVC (Rs Lakhs)
BTPS	75.00	45.01	27,338.06	AFC x PAFY/NAPAF	16,405.61	100.00%	16,405.61
CTPS	75.00	56.60	22,434.48	AFC x PAFY/NAPAF	16,931.72	100.00%	16,931.72
DTPS	74.00	43.27	18,430.62	AFC x PAFY/NAPAF	10,776.46	100.00%	10,776.46
MTPS Unit 1 to 3	83.00	62.17	33,354.26	AFC x PAFY/NAPAF	24,982.40	100.00%	24,982.40
MTPS Unit 4	83.00	61.26	16,288.93	AFC x PAFY/NAPAF	12,022.63	100.00%	12,022.63
Hydel							-
MHS	80.00	80.00	3,174.19	AFC x PAFY/NAPAF	3,174.19	100.00%	3,174.19
THS	80.00	80.00	870.21	AFC x PAFY/NAPAF	870.21	100.00%	870.21
PHS	80.00	80.00	2,683.86	AFC x PAFY/NAPAF	2,683.86	100.00%	2,683.86
MTPS Unit 5 & 6	83.00	70.14	46,367.78	AFC x PAFY/NAPAF	39,181.88	39.11%	15,325.83
MTPS Phase II Unit 7 & 8	83.00	80.00	106,235.87	AFC x PAFY/NAPAF	102,396.05	55.50%	56,834.79
CTPS Unit 7 & 8	83.00	77.00	54,467.83	AFC x PAFY/NAPAF	50,531.48	0.00%	-
DSTPS 1	83.00	75.00	116,104.88	AFC x PAFY/NAPAF	104,913.97	69.09%	72,480.05
DSTPS 2							-
KTPS 1	83.00	50.00	117,669.11	AFC x PAFY/NAPAF	70,885.01	56%	39,726.15
KTPS 2				-			
RTPS 1	-	-	-	-	-	-	-
RTPS 2	83.00	27.28	57,933.50	AFC x PAFY/NAPAF	19,041.28	54.17%	10,314.02
BTPS -A	83.00	30.02	29,336.68	AFC x PAFY/NAPAF	10,609.42	60.00%	6,365.65

Stations	NAPAF (%)	PAFY (%)	AFC (Rs Lakhs)	CERC Formula (Applicable)	Total recoverable fixed charge (Rs Lakhs)	Share of firm consumer	Fixed charge recoverable from DVC (Rs Lakhs)
Transmission	98.00	98.00	52,479.37	AFC x PAFY/NAPAF	52,479.37	100.00%	52,479.37
Total			705169.63				341372.94

Table 53: Station-wise Annual Fixed Charges approved by the Commission for FY 2017-18

Stations	NAPAF (%)	PAFY (%)	AFC (Rs Lakhs)	CERC Formula (Applicable)	Total recoverable fixed charge (Rs Lakhs)	Share of firm consumer	Fixed charge recoverable from DVC (Rs Lakhs)
BTPS	75.00	43.40	28,080.09	AFC x PAFY/NAPAF	16,249.70	100%	16,249.70
CTPS	75.00	43.32	23,358.72	AFC x PAFY/NAPAF	13,492.59	100%	13,492.59
DTPS	74.00	51.80	18,252.48	AFC x PAFY/NAPAF	12,776.74	100%	12,776.74
MTPS Unit 1 to 3	83.00	57.49	34,614.58	AFC x PAFY/NAPAF	23,975.22	100%	23,975.22
MTPS Unit 4	83.00	57.95	14,929.23	AFC x PAFY/NAPAF	10,422.62	100%	10,422.62
Hydel							-
MHS	80.00	80.00	3,327.41	AFC x PAFY/NAPAF	3,327.41	100%	3,327.41
THS	80.00	80.00	925.84	AFC x PAFY/NAPAF	925.84	100%	925.84
PHS	80.00	80.00	2,487.97	AFC x PAFY/NAPAF	2,487.97	100%	2,487.97
MTPS Unit 5 & 6	83.00	76.64	46,358.38	AFC x PAFY/NAPAF	42,808.24	35%	14,851.91
MTPS Phase II Unit 7 & 8	83.00	78.56	104,110.68	AFC x PAFY/NAPAF	98,543.45	46%	45,330.78
CTPS Unit 7 & 8	83.00	76.16	53806.68	AFC x PAFY/NAPAF	49,375.33	0%	-
DSTPS 1	83.00	76.16	113,267.29	AFC x PAFY/NAPAF	103,938.96	64%	66,416.53
DSTPS 2							-
KTPS 1	83.00	70.60	119,812.01	AFC x PAFY/NAPAF	101,906.45	66%	66,758.23
KTPS 2				AFC x PAFY/NAPAF			
RTPS 1	83.00	55.00	113,530.04	AFC x PAFY/NAPAF	75,230.75	39%	29,232.74
RTPS 2	83.00	55.00		AFC x PAFY/NAPAF			
BTPS -A	83.00	55.00	59,906.01	AFC x PAFY/NAPAF	39,696.75	47%	18,514.25
Transmission	98.00	98.00	52,479.37	AFC x PAFY/NAPAF	52,479.37	100%	52,479.37
Total			789246.78				377241.89

Table 54: Station-wise Annual Fixed Charges approved by the Commission for FY 2018-19

Stations	NAPAF (%)	PAFY (%)	AFC (Rs Lakhs)	CERC Formula (Applicable)	Total recoverable fixed charge (Rs Lakhs)	Share of firm consumer	Fixed charge recoverable from DVC (Rs Lakhs)
BTPS	75.00	42.47	28,610.72	AFC x PAFY/NAPAF	16,203.16	100.00%	16,203.16
CTPS	75.00	43.32	24,386.22	AFC x PAFY/NAPAF	14,086.10	100.00%	14,086.10
DTPS	74.00	44.04	18,749.82	AFC x PAFY/NAPAF	11,158.95	100.00%	11,158.95
MTPS Unit 1 to 3	83.00	61.48	36,206.46	AFC x PAFY/NAPAF	26,820.71	100.00%	26,820.71
MTPS Unit 4	83.00	58.97	11,893.13	AFC x PAFY/NAPAF	8,450.23	100.00%	8,450.23
Hydel							-
MHS	80.00	80.00	3,490.11	AFC x PAFY/NAPAF	3,490.11	100.00%	3,490.11
THS	80.00	80.00	985.27	AFC x PAFY/NAPAF	985.27	100.00%	985.27
PHS	80.00	80.00	2,576.61	AFC x PAFY/NAPAF	2,576.61	100.00%	2,576.61
MTPS Unit 5 & 6	83.00	78.56	47,377.80	AFC x PAFY/NAPAF	44,844.31	34.44%	15,443.89
MTPS Phase II Unit 7 & 8	83.00	76.16	101,920.61	AFC x PAFY/NAPAF	93,526.75	42.21%	39,476.87
CTPS Unit 7 & 8	83.00	74.73	53060.03	AFC x PAFY/NAPAF	47,770.67	0.00%	-
DSTPS 1	83.00	76.64	110,416.69	AFC x PAFY/NAPAF	101,960.95	62.98%	64,218.91
DSTPS 2							-
KTPS 1	83.00	76.16	117,573.67	AFC x PAFY/NAPAF	107,890.68	67.38%	72,692.58
KTPS 2				AFC x PAFY/NAPAF			
RTPS 1	83.00	60.00	113,530.04	AFC x PAFY/NAPAF	82,069.91	43.17%	35,427.09
RTPS 2	83.00	60.00		AFC x PAFY/NAPAF			
BTPS -A	83.00	80.00	58,786.84	AFC x PAFY/NAPAF	56,662.01	64.76%	36,693.51
Transmission	98.00	98.00	52,479.37	AFC x PAFY/NAPAF	52,479.37	100.00%	52,479.37
Total			782043.39				400203.36

Table 55: Station-wise Annual Fixed Charges approved by the Commission for FY 2019-20

Stations	NAPAF (%)	PAFY (%)	AFC (Rs Lakhs)	CERC Formula (Applicable)	Total recoverable fixed charge (Rs Lakhs)	Share of firm consumer	Fixed charge recoverable from DVC (Rs Lakhs)
BTPS	75.00	42.67	29,325.99	AFC x PAFY/NAPAF	16,685.72	100.00%	16,685.72
CTPS	75.00	43.18	24,995.88	AFC x PAFY/NAPAF	14,391.98	100.00%	14,391.98
DTPS	74.00	45.73	19,218.57	AFC x PAFY/NAPAF	11,875.36	100.00%	11,875.36
MTPS Unit 1 to 3	83.00	61.09	37,111.62	AFC x PAFY/NAPAF	27,316.34	100.00%	27,316.34
MTPS Unit 4	83.00	64.85	12,190.46	AFC x PAFY/NAPAF	9,524.67	100.00%	9,524.67
Hydel							-
MHS	80.00	80.00	3,577.36	AFC x PAFY/NAPAF	3,577.36	100.00%	3,577.36
THS	80.00	80.00	1,009.90	AFC x PAFY/NAPAF	1,009.90	100.00%	1,009.90

Stations	NAPAF (%)	PAFY (%)	AFC (Rs Lakhs)	CERC Formula (Applicable)	Total recoverable fixed charge (Rs Lakhs)	Share of firm consumer	Fixed charge recoverable from DVC (Rs Lakhs)
<i>PHS</i>	80.00	80.00	2,641.03	AFC x PAFY/NAPAF	2,641.03	100.00%	2,641.03
MTPS Unit 5 & 6	83.00	75.98	48,562.25	AFC x PAFY/NAPAF	44,457.04	30.57%	13,589.11
MTPS Phase II Unit 7 & 8	83.00	74.55	104,468.63	AFC x PAFY/NAPAF	93,831.93	39.62%	37,179.47
CTPS Unit 7 & 8	83.00	76.46	54,386.53	AFC x PAFY/NAPAF	50,102.28	0.00%	-
DSTPS 1	83.00	76.46	113,177.11	AFC x PAFY/NAPAF	104,261.68	62.17%	64,817.76
DSTPS 2							-
KTPS 1	83.00	76.46	120,513.01	AFC x PAFY/NAPAF	111,019.71	66.90%	74,269.18
KTPS 2				AFC x PAFY/NAPAF			
RTPS 1	83.00	79.81	116,368.29	AFC x PAFY/NAPAF	111,894.06	58.51%	65,469.94
RTPS 2	83.00	79.81		AFC x PAFY/NAPAF			
BTPS -A	83.00	79.81	60,256.51	AFC x PAFY/NAPAF	57,939.71	63.98%	37,071.09
Transmission	98.00	98.00	53,791.35	AFC x PAFY/NAPAF	53,791.35	100.00%	53,791.35
Total			801594.47				433210.28

Table 56: Station-wise Annual Fixed Charges approved by the Commission for FY 2020-21

Stations	NAPAF (%)	PAFY (%)	AFC (Rs Lakhs)	CERC Formula (Applicable)	Total recoverable fixed charge (Rs Lakhs)	Share of firm consumer	Fixed charge recoverable from DVC (Rs Lakhs)
BTPS	75.00	43.24	30,059.14	AFC x PAFY/NAPAF	17,330.90	100.00%	17,330.90
CTPS	75.00	43.32	25,620.77	AFC x PAFY/NAPAF	14,799.21	100.00%	14,799.21
DTPS	74.00	46.60	19,699.03	AFC x PAFY/NAPAF	12,405.43	100.00%	12,405.43
MTPS Unit 1 to 3	83.00	62.39	38,039.41	AFC x PAFY/NAPAF	28,592.86	100.00%	28,592.86
MTPS Unit 4	83.00	62.74	12,495.22	AFC x PAFY/NAPAF	9,445.14	100.00%	9,445.14
Hydel							-
<i>MHS</i>	80.00	80.00	3,666.80	AFC x PAFY/NAPAF	3,666.80	100.00%	3,666.80
<i>THS</i>	80.00	80.00	1,035.15	AFC x PAFY/NAPAF	1,035.15	100.00%	1,035.15
<i>PHS</i>	80.00	80.00	2,707.05	AFC x PAFY/NAPAF	2,707.05	100.00%	2,707.05
MTPS Unit 5 & 6	83.00	83.46	49,776.30	AFC x PAFY/NAPAF	50,051.51	36.62%	18,327.63
MTPS Phase II Unit 7 & 8	83.00	79.35	107,080.34	AFC x PAFY/NAPAF	102,370.50	42.89%	43,904.68
CTPS Unit 7 & 8	83.00	81.40	55,746.19	AFC x PAFY/NAPAF	54,674.33	0.00%	-
DSTPS 1	83.00	81.40	116,006.53	AFC x PAFY/NAPAF	113,776.01	64.21%	73,060.00
DSTPS 2							-
KTPS 1	83.00	82.95	123,525.84	AFC x PAFY/NAPAF	123,444.29	69.35%	85,607.00
KTPS 2				AFC x PAFY/NAPAF			
RTPS 1	83.00	81.00	119,277.50	AFC x PAFY/NAPAF	116,403.34	58.76%	68,400.58

Stations	NAPAF (%)	PAFY (%)	AFC (Rs Lakhs)	CERC Formula (Applicable)	Total recoverable fixed charge (Rs Lakhs)	Share of firm consumer	Fixed charge recoverable from DVC (Rs Lakhs)
RTPS 2	83.00	81.00					
BTPS -A	83.00	85.00	61,762.92	AFC x PAFY/NAPAF	63,251.18	65.93%	41,701.29
Transmission	98.00	98.00	55,136.14	AFC x PAFY/NAPAF	55,136.14	100.00%	55,136.14
Total			821634.33				476119.87

7.40 The Commission has approved the energy charges as filed by the Petitioner for FY 2016-17. For FY 2017-18 to FY 2020-21, the Commission has considered 2.5% yearly escalation in energy charges. The same shall be subject to true up based on audited information. The charges as approved by the Commission is tabulated in the below sections:-

Table 57: Station-wise Energy Charges (Thermal generating stations) approved by the Commission for FY 2016-17

Station	2016-17		
	ECR (Rs/Kwh)	Approved Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	2.56	1719.48	44070.27
CTPS	3.15	1423.36	44793.11
DTPS	3.47	544.68	18873.16
MTPS U#1 to 3	2.51	2576.71	64546.46
MTPS U# 4	2.51	843.99	21141.82
MTPS U#5 & 6	2.48	937.55	23260.69
MTPS U# 7&8	2.41	3224.87	77751.67
CTPS U # 7,8	2.39	0.00	0.00
DSTPS U # 1 & 2	2.52	3727.19	93962.45
KTPS U # 1 & 2	2.29	1860.65	42571.74
BTPS 'A'	2.05	50.34	1034.02
RTPS U # 2	2.22	463.67	10280.58
RTPS U # 1	2.22	0.00	0.00
Total (Thermal)		17372.49	442285.98

Table 58: Station-wise Energy Charges (Thermal generating stations) approved by the Commission for FY 2017-18

Station	2017-18		
	ECR (Rs/Kwh)	Approved Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	2.63	1640.61	43100.01
CTPS	3.23	684.94	22094.05
DTPS	3.55	684.37	24306.18
MTPS U#1 to 3	2.57	2345.62	60226.62
MTPS U# 4	2.57	789.39	20268.57
MTPS U#5 & 6	2.54	921.57	23435.87
MTPS U# 7&8	2.47	2617.76	64692.07
CTPS U # 7,8	2.45	0.00	0.00

Station	2017-18		
	ECR (Rs/Kwh)	Approved Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
DSTPS U # 1 & 2	2.58	3509.18	90678.04
KTPS U # 1 & 2	2.35	3294.80	77269.75
BTPS 'A'	2.11	866.40	18240.79
RTPS U # 2	2.27	866.21	19685.76
RTPS U # 1	2.27	866.21	19685.76
Total (Thermal)			483683.46

Table 59: Station-wise Energy Charges (Thermal generating stations) approved by the Commission for FY 2018-19

Station	2018-19		
	ECR (P/Kwh)	Approved Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	2.69	1595.08	42951.53
CTPS	3.31	684.94	22646.40
DTPS	3.64	557.34	20289.34
MTPS U#1 to 3	2.63	2542.96	66926.11
MTPS U# 4	2.63	806.31	21220.47
MTPS U#5 & 6	2.61	941.12	24531.31
MTPS U# 7&8	2.53	2318.01	58716.39
CTPS U # 7,8	2.51	0.00	0.00
DSTPS U # 1 & 2	2.65	3483.95	92276.89
KTPS U # 1 & 2	2.40	3700.10	88944.17
BTPS 'A'	2.16	1881.26	40597.27
RTPS U # 2	2.33	1069.20	24906.40
RTPS U # 1	2.33	1069.20	24906.40
Total (Thermal)		20649.47	528912.67

Table 60: Station-wise Energy Charges (Thermal generating stations) approved by the Commission for FY 2019-20

Station	2019-20		
	ECR (P/Kwh)	Approved Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	2.76	1609.21	44415.31
CTPS	3.39	683.96	23179.16
DTPS	3.73	586.51	21885.36
MTPS U#1 to 3	2.70	2530.56	68264.63
MTPS U# 4	2.70	905.54	24428.03
MTPS U#5 & 6	2.67	806.10	21537.17
MTPS U# 7&8	2.60	2128.70	55269.26
CTPS U # 7,8	2.57	0.00	0.00
DSTPS U # 1 & 2	2.71	3438.84	93359.18
KTPS U # 1 & 2	2.46	3700.43	91175.78
BTPS 'A'	2.21	1858.70	41113.31
RTPS U # 2	2.39	2028.94	48444.69
RTPS U # 1	2.39	2028.94	48444.69
Total (Thermal)		22306.45	581516.57

Table 61: Station-wise Energy Charges (Thermal generating stations) approved by the Commission for FY 2020-21

Station	2020-21		
	ECR (P/Kwh)	Approved Energy (MU) for Firm Consumers	Energy charge (Rs. Lakh)
BTPS	2.83	1632.76	46191.92
CTPS	3.47	684.94	23792.87
DTPS	3.82	599.25	22919.73
MTPS U#1 to 3	2.77	2587.62	71549.03
MTPS U# 4	2.77	868.33	24009.74
MTPS U#5 & 6	2.74	1072.13	29361.03
MTPS U# 7&8	2.66	2468.66	65698.31
CTPS U # 7,8	2.64	0.00	0.00
DSTPS U # 1 & 2	2.78	3805.71	105901.92
KTPS U # 1 & 2	2.53	4198.73	106040.03
BTPS 'A'	2.27	2052.09	46525.53
RTPS U # 2	2.45	2077.72	50849.61
RTPS U # 1	2.45	2077.72	50849.61
Total (Thermal)		24125.67	643689.32

Power Purchase cost for DVC (Other than own generation cost)*Petitioner's Submission*

- 7.41 The Petitioner has submitted that the fixed cost of NHPC, NTPC, MPL have been considered based on latest Tariff Orders for 2014-19. For 2019 to 2021 fixed charges have been worked out based on trend analysis. The Petitioner has submitted that for projection of energy charge rates for NTPC and MPL methodology adopted is same as that for DVC's own generating stations.
- 7.42 The Petitioner has submitted that projections of RPO are made based on notifications of JSERC and WBERC. The projection of renewable energy rate is inclusive of STU transmission charges if any. Additional quantum of RPO over PPA has been proposed to be met through purchase of REC.

Commission's Analysis

- 7.43 After meeting the energy requirement from own generation, the Commission has projected the balance energy requirement to be met through purchase of power from CSGS and other sources during the MYT period from FY 2016-17 to FY 2020-21. Surplus power, if any, has been estimated to be sold at APPC of the Utility, subject to True-up based on audited accounts.
- 7.44 For FY 2016-17, the Commission has considered the power purchase rates as submitted by the Petitioner. The Commission has considered a 2.5% annual increase in power purchase cost for FY 2017-18 to FY 2020-21, subject to True-up based on audited accounts.
- 7.45 The projection of power purchase cost and approved power purchase cost is as below:-

Table 62: Power purchase cost for FY 2016-17 as submitted by DVC and approved by Commission

	Petitioner			Commission		
	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase
NHPC						
Rangit	32.64	12.64	3.93	32.64	12.64	3.93
Teesta	231.41	53.50	2.36	231.41	53.50	2.36
NTPC						
TSTPS - I	49.44	16.52	3.42	49.44	16.91	3.42
FSTPS-I & II	67.02	24.09	3.67	67.02	24.60	3.67
FSTPS- III	249.08	94.20	3.86	249.08	96.14	3.86
KhTPS-I	30.46	10.67	3.58	30.46	10.90	3.58
KhSTPS-II	61.80	20.05	3.31	61.80	20.46	3.31
PTC						
Chukha	213.11	44.54	2.14	213.11	45.61	2.14
Kurichu	38.21	7.76	2.07	38.21	7.91	2.07
Tala	183.24	37.12	2.07	183.24	37.93	2.07
MPL	915.45	383.63	4.28	915.45	391.81	4.28
NTPC Solar Power	27.88	25.88	9.28	27.88	25.88	9.28
NTPC - VVNL Solar Power	34.69	37.05	12.24	34.69	42.46	12.24
NVVNL transmission charges		3.72			3.72	
UI	-131.89			-131.89		
Less: Surplus disallowed				436.00	172.10	3.95
Total	2002.54	771.37		1566.54	618.37	4.04

Table 63: Power purchase cost for FY 2017-18 as submitted by DVC and approved by Commission

	Petitioner			Commission		
	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase
NHPC						
Rangit	32.68	11.96	3.73	32.68	13.16	4.03
Teesta	209.19	47.42	2.31	209.19	50.60	2.42
NTPC						
TSTPS - I	73.13	21.37	2.98	73.13	25.64	3.51
FSTPS-I & II	65.03	24.59	3.86	65.03	24.46	3.76
FSTPS- III	216.62	94.90	4.47	216.62	85.71	3.96

	Petitioner			Commission		
	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase
KhTPS-I	36.49	13.25	3.70	36.49	13.39	3.67
KhSTPS-II	71.52	25.07	3.58	71.52	24.27	3.39
PTC						
Chukha	172.40	39.48	2.34	172.40	37.82	2.19
Kurichu	58.08	11.79	2.07	58.08	12.32	2.12
Tala	181.23	36.61	2.06	181.23	38.45	2.12
MPL	778.24	293.83	3.85	778.24	341.41	4.39
NTPC Solar Power	28.34	26.50	9.35	28.34	26.50	9.35
NTPC - VVNL Solar Power	37.19	43.49	11.70	37.19	43.49	11.70
Less: Surplus disallowed				857.11	322.36	3.76
Total	1960.13	690.26		1103.02	414.85	3.83

Table 64: Power purchase cost for FY 2018-19 as submitted by DVC and approved by Commission

	Petitioner			Commission		
	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase
NHPC						
Rangit	32.60	12.40	3.88	32.60	13.46	4.13
Teesta	208.26	47.68	2.34	208.26	51.64	2.48
NTPC						
TSTPS - I	73.56	22.73	3.15	73.56	26.43	3.59
FSTPS-I & II	66.01	25.79	3.99	66.01	25.45	3.86
FSTPS- III	219.55	98.20	4.56	219.55	89.04	4.06
KhTPS-I	36.72	13.86	3.85	36.72	13.81	3.76
KhSTPS-II	72.47	26.06	3.67	72.47	25.20	3.48
PTC						
Chukha	170.82	39.12	2.34	170.82	38.41	2.25
Kurichu	52.78	10.71	2.07	52.78	11.48	2.17
Tala	180.14	36.39	2.06	180.14	39.18	2.17
MPL	799.70	309.28	3.95	799.70	359.60	4.50
NTPC Solar Power	30.66	28.67	9.35	30.66	28.67	9.35

	Petitioner			Commission		
	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase
NTPC - VVNL Solar Power	38.69	45.24	11.70	38.69	45.24	11.70
Less: Surplus disallowed				701.21	271.57	3.87
Total	1981.95	716.14		1280.74	496.03	3.95

Table 65: Power purchase cost for FY 2019-20 as submitted by DVC and approved by Commission

	Petitioner			Commission		
	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase
NHPC						
Rangit	32.53	12.74	4.00	32.53	13.77	4.23
Teesta	207.33	47.95	2.36	207.33	52.69	2.54
NTPC						
TSTPS - I	73.98	23.83	3.29	73.98	27.25	3.68
FSTPS-I & II	67.00	27.40	4.17	67.00	26.48	3.95
FSTPS- III	222.48	102.07	4.68	222.48	92.48	4.16
KhTPS-I	36.95	14.48	4.00	36.95	14.24	3.86
KhSTPS-II	73.41	27.17	3.78	73.41	26.17	3.56
PTC						
Chukha	169.23	19.38	1.17	169.23	39.00	2.30
Kurichu	49.25	5.00	1.04	49.25	10.98	2.23
Tala	179.05	18.08	1.03	179.05	39.91	2.23
MPL	821.17	330.91	4.11	821.17	378.48	4.61
NTPC Solar Power	32.98	30.84	9.35	32.98	30.84	9.35
NTPC - VVNL Solar Power	40.18	47.00	11.70	40.18	47.00	11.70
Less: Surplus disallowed				1262.07	502.98	3.99
Total	2005.53	706.83		743.47	296.30	4.06

Table 66: Power purchase cost for FY 2020-21 as submitted by DVC and approved by Commission

	Petitioner			Commission		
	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase	Gross Power Purchase (MU)	Amount (Rs Crs)	Rate (Rs/Unit) on Net Power Purchase
NHPC						
Rangit	32.46	13.09	4.12	32.46	13.80	4.34
Teesta	206.40	48.21	2.38	206.40	52.69	2.60
NTPC						
TSTPS - I	74.40	25.10	3.44	74.40	27.53	3.78
FSTPS-I & II	67.98	28.99	4.35	67.98	26.99	4.05
FSTPS- III	225.41	105.91	4.79	225.41	94.12	4.26
KhTPS-I	37.17	15.13	4.15	37.17	14.40	3.95
KhSTPS-II	74.36	28.31	3.88	74.36	26.62	3.65
PTC						
Chukha	167.64	38.39	2.34	167.64	38.81	2.36
Kurichu	47.75	9.69	2.07	47.75	10.69	2.28
Tala	177.97	35.95	2.06	177.97	39.85	2.28
MPL	821.17	342.76	4.26	821.17	380.19	4.72
NTPC Solar Power	35.30	33.00	9.35	35.30	33.00	9.35
NTPC - VVNL Solar Power	41.68	48.75	11.70	41.68	48.75	11.70
Less: Surplus disallowed				1479.68	594.49	4.02
Total	2009.69	773.28		530.00	212.94	4.09

7.46 The cost of RPO has been approved by the Commission based on the following analysis:

Table 67: Cost of RPO (in Rs Lakhs) approved by Commission

		2016 - 17	2017 - 18	2018 - 19	2019 - 20	2020 - 21
Total Solar RPO of entire DVC	A	91.65	185.10	284.43	361.62	386.29
Solar RPO met through purchase of solar power from existing PPA (MU)	B	62.57	65.53	69.35	73.16	76.98
Balance Solar RPO met through purchase of solar REC (MU)	C = A - B	29.08	119.58	215.08	288.46	309.30
Average Rate of Solar Energy (Rs./ Kwh)	D	11.52	10.68	10.66	10.64	10.62
Rate of Solar REC (Rs./ Kwh)	E	3.5	3.5	3.5	3.5	3.5
Cost of solar energy (Rs. Lakhs)	F = B x D	72.06	69.99	73.91	77.83	81.76
Cost of solar REC (Rs. Lakhs)	G = C x E	1017.70	4185.13	7527.94	10096.11	10825.63
Total Cost of solar RPO	H = F + G	1089.76	4255.12	7601.85	10173.94	10907.38

		2016 - 17	2017 - 18	2018 - 19	2019 - 20	2020 - 21
Total non solar RPO	I	469.30	564.07	708.93	875.09	954.47
Rate of non solar REC	J	1.5	1.5	1.5	1.5	1.5
Total cost of non solar RPO	$K = I \times J$	7039.54	8461.01	10634.01	13126.33	14316.99
Cost of total Solar & Non-solar RPO	$L = H + K$	8129.30	12716.13	18235.86	23300.27	25224.37
Total Solar RPO in JHARKHAND part of DVC	M	73.73	161.58	250.11	314.66	334.85
Solar RPO met through purchase of solar power from existing PPA (MU)	N	50.33	57.20	60.98	63.66	66.73
Balance Solar RPO met through purchase of solar REC (MU)	$O = M - N$		104.38	189.13	251.00	268.12
Cost of solar energy (Rs. Lakhs)	$P = N \times D$	5796.96	6109.53	6499.34	6772.57	7087.00
Cost of solar REC (Rs. Lakhs)	$Q = O \times E$	691.95	3653.31	6619.65	8785.00	9384.23
Total Cost of solar RPO	$R = P + Q$	6488.91	9762.84	13118.99	15557.56	16471.23
Total non solar RPO	S		133.65	163.42	196.27	210.81
Total cost of non solar RPO	$T = S \times J$	1593.3	2004.71	2451.31	2944.07	3162.09
Cost of total Solar & Non-solar RPO	$U = T + R$	8082.21	11767.55	15570.30	18501.63	19633.32

Other Fixed cost components

T&D cost for Power Purchase

Petitioner's Submission

7.47 The Petitioner has submitted that it has to pay transmission charges to CTU/STU for availing transmission corridor. In addition to that it also pays ULDC charges, POSOCO charges etc. related to power purchase. Non POC charges are paid for few dedicated transmission lines operated and maintained by PGCIL.

Commission's Analysis

7.48 For FY 2016-17, the Commission has considered the transmission and other charges as submitted by the Petitioner. The Commission has considered a 2.5% annual increase in transmission and other charges for FY 2017-18 to FY 2020-21, subject to True-up based on audited accounts.

Table 68: Incidental expenses (in Cr) related to power purchase by the Petitioner as filed and approved by the Commission

ITEM	2016-17	2017-18	2018 -19	2019 - 20	2020 - 21
POC TRANSMISSION, POSOCO & ULDC CHARGES	119.47	122.46	125.52	128.66	131.87
Non POC transmission charges	7.94	8.14	8.34	8.55	8.76
PTC Transmission charge	0.57	0.58	0.60	0.61	0.63

ITEM	2016-17	2017-18	2018 -19	2019 - 20	2020 - 21
Contribution to ERPC fund	0.16	0.16	0.16	0.16	0.16
Total	128.14	123.20	126.27	129.43	132.66

Tariff filing fee and publication expenses to CERC

Petitioner's Submission

- 7.49 The Petitioner has projected tariff filing fee and publication expenses payable to CERC on the basis percentage on installed capacity.
- 7.50 The Petitioner has submitted revised numbers along with methodology to compute these charges in additional information submitted to the Commission on 7th June 2017.

Commission's Analysis

- 7.51 The Commission has approved the methodology adopted by the petitioner for computation of tariff filing fee and publication expenses for FY 2016-17 to FY 2020-21. The below table represents the charges filed and approved by the Commission:-

Table 69: Projected and approved tariff filing fee and publication expenses to CERC

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission
Tariff filing fees	4.83	4.83	4.90	4.90	5.01	5.01	5.13	5.13	5.24	5.24
Publication expenses related to Central Commission	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10	0.10
Total	4.93	4.93	5.00	5.00	5.11	5.11	5.22	5.22	5.34	5.34

Water Cess

Petitioner's Submission

- 7.52 The Petitioner has claimed water cess of Rs. 2.48 Cr., Rs. 2.54 cr. and Rs. 2.60 Cr., 2.67 Cr., 2.73 Cr respectively for FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

Commission's Analysis

- 7.53 The Commission observed that the Petitioner has claimed expenditure towards water cess seeing the trend of past years. However it has not considered the expenses for FY 2015-16 while claiming the expenditure.
- 7.54 The Commission approves the expenditure towards water cess taking the trend of past 3 years, subject to True-up based on audited accounts. The expenses as approved by the Commission is tabulated as below:

Table 70: Water cess (in Cr) as approved by the Commission

FY	2016-17	2017-18	2018-19	2019-20	2020-21
Water cess	2.96	3.25	3.55	3.84	4.13

Non-tariff income*Petitioner's Submission*

- 7.55 The Petitioner has claimed water cess of Rs. 38.12 Cr, Rs 36.22 Cr, Rs 32.60 Cr, Rs 27.71 Cr and Rs 22.17 Cr respectively for FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

Commission's Analysis

- 7.56 The Commission approves the expenditure towards non-tariff income taking the trend of past 3 years. The non-tariff as approved by the Commission is tabulated as below:-

Table 71: Non-Tariff income (in Cr) as approved by the Commission

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission	Petitioner	Commission
Non-tariff Income (in Rs. Crores)	38.12	47.68	36.22	51.42	32.60	55.16	27.71	58.89	22.17	62.63

Allocation of Costs for DVC as a whole to Jharkhand Area*Petitioner's Submission*

- 7.57 The Petitioner has submitted that the input costs including own generation cost, power purchase cost, other input cost, Non-Tariff Income etc. cannot be segregated into the cost pertaining to Jharkhand and West Bengal area as DVC operates as a single entity.
- 7.58 Thus, for the purpose of allocating the input cost pertaining to the area falling under the state of Jharkhand, the Petitioner has categorized the cost components into two distinctive heads of fixed charge and energy charge. The Petitioner submits that the costs under these two heads are further allocated to the area of Jharkhand and West Bengal on the basis of MU & MVA ratio.
- 7.59 The Petitioner also submitted that some of the costs / expenditures are separately estimated for the operational area of Jharkhand such as Interest on Working Capital, Interest on security Deposit, tariff filing and publication expenses including installments to bridge revenue gap for the licensed area of Jharkhand.

Commission's Analysis

7.60 During the scrutiny of previous tariff petitions, the Commission had directed the petitioner to submit the details of segregated cost of supply for Jharkhand and West Bengal area. However, the Petitioner clarified that the transmission and distribution system for the whole Damodar Valley area is an integrated one and cannot be segregated for Jharkhand and West Bengal. Thus, in view of the above, the Commission had segregated the input cost of DVC in the ratio of the energy sales in Jharkhand area to the total sales in the Damodar Valley area.

7.61 The following table summarizes the input cost allocated to the Jharkhand area for the Control Period from FY 2016-17 to FY 2020-21 as submitted by the Petitioner and as approved by the Commission.

Table 72: Input cost allocated to the Jharkhand area (Rs. Lakhs) for FY 2016-17 as submitted by Petitioner and as approved by the Commission

Components	FY 2016-17			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
Own generation cost	442,285.98	345,003.17	442,285.98	341,372.94
Power Purchase Cost	83,285.50		67,816.14	
Tariff Filing fees and publication expenses to CERC		492.97		492.97
Water Cess		247.82		247.82
Non - Tariff Income		3,812.42		4,768.34
Total	525,571.48	341,931.55	510,102.11	337,345.39
<i>Percentage share of sale in Jharkhand Area</i>	57.62%		56.12%	
ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand	302,817.23	197,009.86	286,256.16	189,309.54

Table 73: Input cost allocated to the Jharkhand area (Rs. Lakhs) for FY 2017-18 as submitted by Petitioner and as approved by the Commission

Components	FY 2017-18			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
Own generation cost	492,474.89	398,782.10	483,683.46	377,241.89
Power Purchase Cost	68,815.34		41,339.65	
Tariff Filing fees and publication expenses to CERC		499.80		499.80
Water Cess		254.09		254.09
Non - Tariff Income		3,621.80		5,142.06
Total	561,290.23	395,914.19	525,023.12	372,853.72
<i>Percentage share of sale in Jharkhand Area</i>	56.95%		55.18%	

Components	FY 2017-18			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand	319,647.05	225,467.67	289,701.08	205,735.94

Table 74: Input cost allocated to the Jharkhand area (Rs. Lakhs) for FY 2018-19 as submitted by Petitioner and as approved by the Commission

Components	FY 2018-19			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
Own generation cost	548,130.82	439,436.41	528,912.67	400,203.36
Power Purchase Cost	71,082.61		49,071.41	
Tariff Filing fees and publication expenses to CERC		510.70		510.70
Water Cess		260.35		354.66
Non - Tariff Income		3,259.62		5,515.78
Total	619,213.43	436,947.84	577,984.08	395,552.95
<i>Percentage share of sale in Jharkhand Area</i>	56.30%		54.24%	
ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand	348,613.57	245,999.10	313,508.68	214,555

Table 75: Input cost allocated to the Jharkhand area (Rs. Lakhs) for FY 2019-20 as submitted by Petitioner and as approved by the Commission

Components	FY 2019-20			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
Own generation cost	613072.26	468043.74	581516.57	433210.28
Power Purchase Cost	74077.92		28778.70	
Tariff Filing fees and publication expenses to CERC		522.14		522.14
Water Cess		266.62		383.98
Non - Tariff Income		2770.67		5889.50
Total	687,150.18	466,061.83	610,295.26	428,226.90
<i>Percentage share of sale in Jharkhand Area</i>	55.64%		53.28%	
ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand	382315.41	259306.66	325,187.68	228,175

Table 76: Input cost allocated to the Jharkhand area (Rs. Lakhs) for FY 2020-21 as submitted by Petitioner and as approved by the Commission

Components	FY 2020-21			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
Own generation cost	690918.17	503704.56	643689.3248	476119.87
Power Purchase Cost	76157.02		20123.48	
Tariff Filing fees and publication expenses to CERC		533.54		533.54
Water Cess		272.89		413.29
Non - Tariff Income		2216.54		6263.22
Total	767,075.19	502,294.45	663,812.80	470,803.49
<i>Percentage share of sale in Jharkhand Area</i>	54.93%		52.30%	
ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand	421332.85	275896.23	347,204.40	246,252

Revenue from Sale of Power in the Jharkhand Area

Petitioner's Submission

- 7.62 The Petitioner submitted estimated revenue from sale of power in Jharkhand area to be Rs. 5,215.95 Cr, Rs 5,508.16 Cr, Rs. 5,811.82 Cr, Rs. 6,142.29 Cr and Rs 6,498.28 Cr from FY 2016-17 to FY 2020-21 respectively vide petition submitted on 19th August, 2015.
- 7.63 Subsequently the Petitioner had submitted revised revenue from sale of power for FY 2016-17 in reply to the second discrepancy note raised by the Commission. The revised revenue estimated by the Petitioner for FY 2016-17 amounts to Rs. 5,017.09 Cr submitted on 29th August, 2017.

Commission's Analysis

- 7.64 The Commission estimated the revenue from sale of power in Jharkhand area for MYT period on the approved energy sales for FY 2016-17 to FY 2020-21. Accordingly, approved revenue from sale of power for Jharkhand area at current tariff works out to be Rs. 5017.09 Cr, Rs. 5,230.58 Cr, Rs. 5930.42 Cr, Rs. 6,267.64 Cr, Rs. 6,630.91 Cr from FY 2016-17 to FY 2020-21, respectively subject to true up based on the actual data in the subsequent tariff orders.

Interest on Working Capital

Petitioner's Submission

- 7.65 The Petitioner had computed interest on working capital in the original petition dated 19th August, 2015 as per the decision of Hon'ble Supreme Court.

Commission's Analysis

7.66 The Petitioner had filed the claim towards interest on working capital as per Distribution Tariff regulations, 2015. However, since the O&M cost and other expenses of the Petitioner are included in the cost of generation of power from its own stations, applying the aforementioned methodology as per the 'Distribution Tariff Regulations, 2015' is not possible.

7.67 Hence, the Commission has adopted the same methodology as described in the previous Tariff Order for FY 2012-13 dated 22nd November 2012. The relevant extracts of the same are discussed below:

"7.40 However, the Commission noticed that the GFA and O&M cost of the Petitioner cannot be segregated into that of pertaining to generation and transmission business and that for distribution and retail business at present. Hence, applying the aforementioned methodology for computation of IWC is not possible. Therefore, the Commission decided to continue with the methodology as applied by the Commission for trueing up the ARR for FY 2006-07 to FY 2011-12 in this Order.

"7.41 Accordingly, the Commission has estimated the working capital requirement for Jharkhand area to be 1% of the projected revenue from sale of power in the Jharkhand area. The interest on working capital has been estimated at the prevailing State Bank of India (SBI) Prime Lending Rate (PLR) as on April 1st of the respective year....."

7.68 The Commission has considered Interest Rate equal to SBI PLR as on 01st April of the corresponding year.

7.69 Thus, adopting the aforementioned methodology, the Commission arrived at the Interest on Working Capital as shown in the following table:

Table 77: Interest on working capital approved by the Commission for MYT control period (in Cr)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Revenue from sales in Jharkhand	5017.09	5230.59	5930.42	6267.64	6630.90
Working Capital Requirement in Jharkhand Area (@ 1% of Revenue from sale of power)	50.17	52.31	59.30	62.68	66.31
Interest Rate (%)	12.80%	12.80%	12.80%	12.80%	12.80%
Interest on Working Capital for Jharkhand Area	6.42	6.70	7.59	8.02	8.49

Interest on Security Deposit

Petitioner's Submission

- 7.70 The Petitioner submitted that the increase in interest on consumer security deposit is commensurate with load growth in the Jharkhand area.
- 7.71 For the Control Period, the Petitioner has considered the Interest on security deposit to be Rs. 1.58 Cr., Rs. 1.79 Cr., Rs. 1.99 Cr., Rs. 2.19 Cr. and Rs. 2.40 Cr., for FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21 respectively, in the petition.

Commission's Analysis

- 7.72 The Commission has approved the interest on security deposit to be Rs. 1.83 Cr., Rs. 1.99 Cr., Rs. 2.16 Cr., Rs. 2.38 Cr. and Rs. 2.61 Cr., for FY 2016-17, FY 2017-18 and FY 2018-19, FY 2019-20 and FY 2020-21 respectively, subject to true-up in the subsequent tariff orders based on the actual information.

Tariff Filing and Publication Expenses for Jharkhand Area

Petitioner's Submission

- 7.73 The Petitioner has projected the Tariff Filing and Publication Expenses for the part of DVC area under the jurisdiction of Jharkhand to be Rs. 0.97 Cr, Rs. 0.78 Cr., Rs. 0.46 Cr., Rs. 0.47 Cr. and Rs. 0.48 Cr. for FY 2016-17, FY 2017-18, FY 2018-19, FY 2019-20 and FY 2020-21 respectively.

Commission's Analysis

- 7.74 The Commission accepts the tariff filing and publication expenses after conducting prudence check and thus allows the tariff filing and publication expenses for Jharkhand area of Damodar Valley as submitted by the Petitioner subject to True up based on actual data for the year.

Table 78: Tariff filing and publication fee as filed by Petitioner and as approved by the Commission (in Cr)

	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Tariff Filing Fees and Licensee fees related to JSERC	0.94	0.74	0.42	0.43	0.44
Publication Expenses related to JSERC	0.04	0.04	0.04	0.04	0.04
TOTAL	0.97	0.78	0.46	0.47	0.48

Summary of ARR for Jharkhand area for the control period

7.75 The following tables summarizes the ARR for Jharkhand area as per the submission by the Petitioner and that approved by Commission for the Control Period from FY 2016-17 to FY 2020-21:

Table 79: Summary of ARR (Rs Lakhs) for Jharkhand Area for FY 2016-17 as submitted by Petitioner and as approved by Commission

Components	FY 2016-17			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
<i>ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand</i>	302,817.23	197,009.86	286,256.16	189,309.54
Cost of Solar & Non Solar Power and REC Purchased to meet the solar & non solar RPO in the state of Jharkhand	8,950.25		8082.21	
Interest on Working Capital		10,180.73		642.19
Interest on Security Deposit		158.13		183.57
Tariff Filing and Publication Expenses for Jharkhand Area		97.11		97.11
Total Cost to Jharkhand	311,767.48	207,445.83	294,338.37	190,232.41
Total ARR Required	519,213.31		484,570.79	
Revenue at existing tariff	501,709.00		501,709.00	
Revenue gap/ (Surplus) at existing tariff	17,504.31		(17,138.21)	

Table 80: Summary of ARR (Rs Lakhs) for Jharkhand Area for FY 2017-18 as submitted by Petitioner and as approved by Commission

Components	FY 2017-18			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
<i>ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand</i>	319,647.05	225,467.67	289,701.08	205,735.94
Cost of Solar & Non Solar Power and REC Purchased to meet the solar & non solar RPO in the state of Jharkhand	12,631.71		11,768	
Interest on Working Capital		11,306.89		669.52
Interest on Security Deposit		178.51		199.43
Tariff Filing and Publication Expenses for Jharkhand Area		77.62		77.62

Components	FY 2017-18			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
Total Cost to Jharkhand	332,278.76	237,030.70	301,468.62	206,682.50
Total ARR Required	569,309.46		508,151.13	
Revenue at existing tariff	550,816.02		523,058.63	
Revenue gap/ (Surplus) at existing tariff	18,493.44		(14,907.50)	

Table 81: Summary of ARR (Rs Lakhs) for Jharkhand Area for FY 2018-19 as submitted by Petitioner and as approved by Commission

Components	FY 2018-19			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand	348,613.57	245,999.10	313,508.68	214,555
Cost of Solar & Non Solar Power and REC Purchased to meet the solar & non solar RPO in the state of Jharkhand	16,890.48		15,570	
Interest on Working Capital		12,389.67		759.09
Interest on Security Deposit		198.89		216.30
Tariff Filing and Publication Expenses for Jharkhand Area		45.92		45.92
Total Cost to Jharkhand	365,504.05	258,633.59	329,078.98	215,576.15
Total ARR Required	624,137.64		544,655.13	
Revenue at existing tariff	581,181.53		593,042.34	
Revenue gap/ (Surplus) at existing tariff	42,956.11		(48,387.21)	

Table 82: Summary of ARR (Rs Lakhs) for Jharkhand Area for FY 2019-20 as submitted by Petitioner and as approved by Commission

Components	FY 2019-20			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand	382315.41	259306.66	325,187.68	228,175
Cost of Solar & Non Solar Power and REC Purchased to meet the solar & non solar RPO in the state of Jharkhand	20303.47		18501.63	

Components	FY 2019-20			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
Interest on Working Capital		13405.69		802.26
Interest on Security Deposit		219.28		238.47
Tariff Filing and Publication Expenses for Jharkhand Area		46.70		46.70
Total Cost to Jharkhand	402618.88	272978.33	343,689.31	229,262.41
Total ARR Required	675,597.21		572,951.72	
Revenue at existing tariff	614228.82		626764.12	
Revenue gap/ (Surplus) at existing tariff	61,368.40		(53,812.41)	

Table 83: Summary of ARR (Rs Lakhs) for Jharkhand Area for FY 2020-21 as submitted by Petitioner and as approved by Commission

Components	FY 2020-21			
	Petitioner's Submission		Commission's Analysis	
	Energy Charge	Fixed Charge	Energy Charge	Fixed Charge
<i>ARR before Interest on Working Capital, Interest on Security Deposit and tariff filing fees in the licensed area of Jharkhand</i>	421332.85	275896.23	347,204.40	246,252
Cost of Solar & Non Solar Power and REC Purchased to meet the solar & non solar RPO in the state of Jharkhand	21733.03		19633.32	
Interest on Working Capital		14593.84		848.76
Interest on Security Deposit		239.66		260.63
Tariff Filing and Publication Expenses for Jharkhand Area		47.51		47.51
Total Cost to Jharkhand	443065.88	290777.24	366,837.72	247,408.62
Total ARR Required	733,843.12		614,246.34	
Revenue at existing tariff	649827.78		663090.05	
Revenue gap/ (Surplus) at existing tariff	84,015.34		(48,843.71)	

A8: Treatment of revenue gap/surplus and revision in retail tariff

- 8.1 The Commission has approved a revenue surplus of Rs 484.28 Cr and Rs 178.37 Cr for FY 2015-16 and FY 2016-17, respectively, in this Order.
- 8.2 The cumulative surplus, considering carrying cost on the surplus of FY 2015-16 and the closing gap till FY 2014-15, as approved in this Order works out to Rs 2,456.26 Cr as summarized in the following table:

Table 84: Gap/ surplus till FY 2016-17 (in Rs Cr)

Particulars	FY 2015-16	FY 2016-17
Opening Gap	(1287.39)*	(1997.27)
Add: Revenue Gap/ (Surplus) for the year	(484.28)	(178.37)
Closing Gap / (Surplus)	(1771.67)	(2175.64)
SBI PLR	14.75%	14.05%
Carrying Cost on Opening Gap	(189.89)	(280.62)
Interest on Additions	(35.72)	-
Total Carrying Cost	(225.61)	(280.62)
Closing Gap / (surplus) including carrying cost	(1997.27)	(2456.26)

*As per Table 8

- 8.3 The Commission also observes that the cumulative surplus till FY 2014-15 as approved by the Commission in the Order dated 19.04.2017 (and revised in this Order in Chapter 5), was subject to the result of Civil Appeal No. 4881 of 2010. The Commission, in Para 2.14 of the Order dated 19.04.2017, had noted that:

The Hon'ble Supreme Court of India, vide its Judgment dated 26th October, 2016, has directed the Commission to take-up the issue of True-up of previous years and make the decision subject to the result of Civil Appeal No. 4881 of 2010. The apex court ruled:

".. Therefore, this appeal is disposed of with a direction to Respondent No.1- Jharkhand State Electricity Regulatory Commission to take up the true-up issue and pass the required Orders within a period of six months from today.

However, the Commission is free to make the decision subject to the result of Civil Appeal No. 4881 of 2010 in case the said civil appeal is not disposed of before the said period."

- 8.4 Further, the Commission in its Order dated 19.01.2018 in Case No 07 of 2017 had also stated:

"In view of the said admitted position and the facts and circumstances appearing on record, we are of the view that during the pendency of Appeal No. 198 of 2017 filed by the petitioner in this case and Appeal No. 163 of 2017 filed by the respondent, DVC, before the Hon'ble Appellate Tribunal for Electricity, the order dated 19.4.2017 passed in Case (T) No. 02 of 2016 cannot be said to have attained its finality and it would not be proper

to pass any order in the instant case for refund of excess charges claimed by the petitioners at this stage.”

Accordingly, the Commission has not considered the revenue surplus till FY 2014-15, at the moment.

- 8.5 The cumulative surplus, excluding revenue surplus till FY 2014-15, out to Rs 771.42 Cr as summarized in the following table:

Table 85: Revenue surplus for FY 2015-16 and FY 2016-17 (in Rs Cr)

Particulars	FY 2015-16	FY 2016-17
Opening Gap	-	(520.00)
Add: Revenue Gap/ (Surplus) for the year	(484.28)	(178.37)
Closing Gap / (Surplus)	(484.28)	(698.36)
SBI PLR	14.75%	14.05%
Carrying Cost on Opening Gap	0.00	(73.06)
Interest on Additions	(35.72)	-
Total Carrying Cost	(35.72)	(73.06)
Closing Gap / (surplus) including carrying cost	(520.00)	(771.42)

- 8.6 In order to adjust the cumulative revenue surplus, the Commission has **reduced the tariffs by approximately 13%** besides making changes in the tariff structure.
- 8.7 The Commission has undertaken a Tariff simplification exercise in this Order. The Commission is of the view that multiple sub-categories and slabs in each tariff category make the tariff structure highly complex and difficult for the consumer to understand. The Economic Survey of India, 2015-16 also observes some of the above issues and views that simplification of tariffs with no more than 4-5 categories, will improve transparency in setting tariffs and may well yield benefits including enhanced consumption, collection efficiency, along with bringing in governance and other administrative benefits.
- 8.8 The Ministry of Power, Government of India also constituted a committee under the Chairmanship of Ms. Jyoti Arora, Joint Secretary, Ministry of Power, for developing a design framework for creation of tariff categories across India, to enable uniform and homogenous electricity tariff categorization. PricewaterhouseCoopers assisted the Committee to carry out a study for reviewing of the existing scenario of electricity tariffs in India, identifying national/international best practices and developing a framework as well as a roadmap for implementation of the new simplified tariff categories.
- 8.9 This new tariff structure shall also ensure uniformity in structures across all the licensees in the State.
- 8.10 In this background, the Commission approves the new simplified tariff schedule as discussed in section A10 of this Order. The Commission has also notified tariffs for other

categories such as LT (Domestic, Commercial, Agriculture), MES etc. in order to provide tariff visibility to those new category of consumers who wish to avail power from DVC.

A9: Other Tariff related issues

Petitioner's Submission

9.1 Besides the proposal for revision of retail Tariff, the Petitioner has also submitted following proposal for other tariff related issues:

- (a) **ToD tariff:** DVC submitted that with the introduction of TOD tariff in the West Bengal part of DVC, it was observed that due to lower tariff during Normal Period (06:00 hrs. to 17:00 hrs.), over peak period (17:00 hrs. to 23:00 hrs.) and during off-peak period (23:00 hrs. to 06:00 hrs.) over the Normal Period, the load profile has been found flattened resulting reduction of the monthly bill of the consumers. Hence, it proposes to introduce the regime in Jharkhand part also. The Petitioner further submitted that unlike other distribution licensees operating in the State of Jharkhand, DVC meets around 90% of its consumer demand from its own generation. Long terms agreement for purchase of power from CSGS, MPL etc. were done in order to bridge the gap between demand and generation. As such DVC does not require to purchase power on short term basis except in case of any unforeseen exigency. However, scheduling of power purchased from contracted sources depends on load-generation balance for each time block depending on availability of generation and transmission network of CTU. Therefore variation in power purchase cost on introduction of TOD tariff will be insignificant.
- (b) **Demand Charges -** The Petitioner proposes to levy Demand Charge on the basis of maximum demand, recorded during the month or 85% of the contract demands whichever is higher.
- (c) **Penalty for exceeding Billing / Contract Demand -** The Petitioner proposes to levy extra charges if a consumer consumes power in excess of his contract demand in accordance with following stipulations
 - If the highest demand of any non-TOD consumer recorded in a month exceeds his contract demand, he shall be liable to pay demand charge at the applicable rate for that non-TOD consumer in question on highest demand for that month. In addition, he will be also liable to pay an additional demand charge @ 60% of the demand charge for the additional demand being the difference between the recorded highest demand and his contract demand.
 - In case the highest demand of any consumer under TOD tariff exceeds the contract demand in any month, the demand charge as mentioned in the tariff schedule of the tariff order for any year shall apply on highest demand for that month. In addition, the demand of power in excess of sanctioned contract demand in any period of time shall attract the additional demand charge for the said excess demand for such consumer, and the same shall be calculated according to the following formulae:

- A. In case the highest demand during normal period exceeds the contract demand:

$$ADC_{ED} = 0.2 \times (D_{act} - D_{cont}) \times DC$$

- B. In case the highest demand during peak period exceeds the contract demand:

$$ADC_{ED} = 0.5 \times (D_{act} - D_{cont}) \times DC$$

- C. In case the highest demand during off-peak period exceeds the demand:

- When $D_{act} > D_{cont}$ and $D_{act} \leq 1.3 \times D_{cont}$

$$ADC_{ED} = 0.01 \times (D_{act} - D_{cont}) \times DC$$

- When $D_{act} > 1.3 \times D_{cont}$ and $D_{act} \leq 1.5 \times D_{cont}$

$$ADC_{ED} = [0.01 \times 0.3 \times D_{cont} + 0.1 \times (D_{act} - 1.3 \times D_{cont})] \times DC$$

- When $D_{act} > 1.5 \times D_{cont}$

$$ADC_{ED} = [0.01 \times 0.3 \times D_{cont} + 0.1 \times 0.2 \times D_{cont} + 0.2 \times (D_{act} - 1.5 \times D_{cont})] \times DC$$

In the formulae A, B & C mentioned above, the abbreviations have the meaning as given below:

ADC_{ED} = Additional Demand Charge for demand of power in excess of sanctioned contract demand during the billing period.

D_{act} = Actual highest demand of power in respective time period. D_{cont} = Sanctioned Contract Demand of the consumer.

DC = Rate of Demand Charge as per the tariff order for the relevant category of consumer.

- D. In case demand of power exceeds sanctioned contract demand in more than one time period, computation of Additional Demand Charge (ADC_{ED}) shall be done for each such time period and the highest among such computed additional demand charge for different time periods shall be chargeable.

- (d) **Minimum Charges** - In order to ensure recovery of the entire fixed charges of DVC's distribution facility, the Petitioner proposes a provision for Minimum charges in the tariff design. Minimum Charges excluding taxes, levies, etc and arrears shall be as follows for all categories of HV and EHV consumers:

Table 86: Minimum Charges proposed by the Petitioner

Financial Year	Minimum Charges proposed (Rs./kVA/month)
FY 2016-17	952.13
FY 2017-18	1072.51
FY 2018-19	1119.40
FY 2019-20	1317.57
FY 2020-21	1394.20

The above proposed minimum charge rate shall be applicable on the contract demand when the sum of the energy charge and demand charge including rebate and surcharge, if any, is less than the proposed minimum charge.

In case of LT category of consumers minimum charges is also proposed to be equal to the fixed charges of their respective category subject to the condition that sum of the energy charge and demand charge including rebate and surcharge, if any, is less than the proposed minimum charge.

- (e) **Load Factor surcharge** - The Petitioner also proposed to apply Load Factor surcharge on the Industrial Consumers if the load factor falls below 30%. The surcharge amount proposed for the load factor less than 30% but equal to or above 25% shall be 5 paise/kWh for the amount of energy by which consumption falls short of energy corresponding to load factor of 30%. The surcharge amount proposed for the load factor below 25% shall be 30 paise/kWh and shall be applicable only for the amount of energy by which the consumption falls short of energy corresponding to a load factor of 25% but not less than the amount of surcharge that would have been payable for load factor at 25% computed @ 5 paise/kWh.
- (f) **Prompt Payment Rebate-** The Petitioner also proposed to apply Prompt Payment Rebate to be varying with the date of payment starting from 2% for payment within 2 days from the date of presentation of the bill and reducing thereafter in stages and discontinuation of such rebate for payment beyond 28 days from the date of presentation of the bill. Prompt Payment Rebate as proposed by the petitioner is:

No. of days from the date of presentation	% Rebate
Within 2 days	2.00
3 days to 5 days	1.67
6 days to 12 days	1.20
13 days to 30 days	0.00

- (g) **Miscellaneous charges proposed by the Petitioner** – The Petitioner has requested the Commission to allow charges like meter testing charges, disconnection charges & reconnection charges as per the supply code of JSERC. The charges as proposed by the petitioner are provided in the table given below:

Items Units	Meter testing charge Rs Per meter	Disconnection charge Rs for each case of disconnection	Re-connection charge Rs for each case of reconnection
LT (Domestic)	40	30	30
LT (Commercial)	100	300	300
HT (33,132,220 KV)	650	500	500

- (h) **Dishonoured Cheques** – The Petitioner has requested the Commission that in the event of dishonored cheque for payment against a particular bill, the Licensee shall be allowed to charge a minimum of Rs. 300 or 0.5% of the billed amount, whichever is higher.

The petitioner also submitted that the DPS shall be allowed to be levied extra as per the applicable terms and conditions of DPS for the respective category.

- (i) **Late Payment Surcharge** is proposed to be levied for all consumers at the rate of 1.5% per month and part thereof for all consumer categories. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of the bill through e-mail.
- (j) **Enhancement of Contract Demand:** In the tariff order of DVC dtd. 4th September 2014, it was stated that for enhancement of contract demand of any consumer in case his actual demand is higher than the contract demand for three continuous months the enhanced contract demand will be as per the last recorded actual demand of any consumer. DVC submitted that such enhancement of contract demand without studying the technical feasibility may cause overloading of circuit breakers, lines/ feeder transformers or any other connected equipment causing subsequent failure. Therefore the Commission may kindly consider the above technical difficulty and minor modification of the said para as under:

"In case actual demand is higher than the contract demand for three continuous months, the last recorded actual demand may be treated as the new contract demand subject to studying the technical feasibility for the purpose of billing of future months and the consumer will have to get into a new agreement for the revised contract demand with the licensee."

Commission's Analysis

9.2 The point-wise response to proposal made by the Petitioner has been summarized as under:

- a) **TOD tariff:** The Commission in the last MYT Order had directed DVC to submit impact analysis and requisite data along with proposal for introduction of ToD Tariff. The Petitioner failed to do so. The Commission, once again, through a discrepancy and additional information note for the instant petition, sought the requisite analysis for introduction of TOD tariff. The Petitioner submitted that “it is not in a position to offer comments based on actual events as no such tariff structure is in place at the moment in Jharkhand in the DVC area”. The Petitioner further cited reference to the prevailing TOD structure in the West Bengal area of DVC approved by WBERC and stated that the load profile was found to be flattened by the introduction of TOD tariff. Hence, it may be introduced in Jharkhand area too. The Commission is of the view that in the absence of detailed analysis of the load curve of the Utility in the Jharkhand area, it may not be prudent to introduce TOD tariff at the moment. The Commission, once again directs the Utility to undertake a detailed analysis of introduction of TOD tariff which may include:
- i. Identification of system peak period and off-peak period, through the analysis of the system load curve to devise the TOD structure (time bands);
 - ii. Proper load profiling of the consumer categories for which TOD is slated to be introduced, through installation of proper meters;
 - iii. Estimation of the load shifting through the use of different tariff differentials through a study on sample consumers;

The Petitioner should submit the requisite analysis along with the next Tariff Petition.

- b) **Demand charges:-** The billing demand and penalty for exceeding billing/ contract demand shall be as per Clause I of the Terms and Conditions of Supply as provided in Section A11 of this Order.
- c) **Minimum charges: -** As applicable for other licensees in the State, the Commission has discontinued levy of minimum charges. The minimum charges are considered to safeguard the licensee from entire loss of revenue in absence of any energy sales. In case fixed/ demand charges are levied, minimum revenue from fixed/ capacity charges shall be ensured and hence the requirement of minimum charges does not hold any merit. Accordingly, the Commission rejects the proposal of recovery of minimum charges from all consumers in command area of DVC.
- d) **Load factor surcharge: -** The Commission does not agree to the proposal for levy of load factor surcharge because of the difficulty in the arriving at the cause of low load factor which could be either due to poor and unreliable quality of DVC power supply or due to the fault of the consumer. Thus, the Commission is of the view that low load factor surcharge is not a feasible option.

- e) **Detail of prompt payment rebate:** The Prompt Payment Rebate shall be as per Clause IV of the Terms and Conditions of Supply as provided in Section A11 of this Order. The Commission has also introduced rebate for payments through digital mode/online payment, as mentioned in Clause IV in Section A11.
- f) **Other charges proposed:** Meter testing charges, disconnection charges and reconnection charges shall be levied in accordance with the following table:

Table 87: Schedule for Miscellaneous Charges

S.No.	Purpose	Scale of Charges	Manner in which Payment will be realised
1	Application fee		
	Domestic	Rs 30 (Kutir Jyoti) Rs 40 (Others)	Payable with energy bill
	Street Light	1 ph- Rs. 40, (L.T) 3 Ph- Rs. 75	
	Agriculture	1 ph- Rs. 40, (L.T) 3 Ph-Rs. 75	
	Commercial	1 ph- Rs. 40, (L.T) 3 Ph-Rs. 75	
	Other LT Categories	Rs 100	
	HTS	Rs 200	
2	Revision of estimate when a consumer intimates changes in his requirement subsequent to the preparation of service connection estimate based on his original application		
	Agriculture	Rs 40	Payable with energy bill
	Domestic	Rs 35	
	Commercial	Rs 40	
	Other LT Categories	Rs 100	
	HT Supply	Rs 285	
3	Testing of consumers Installation		
	First test and inspection free of charge but should any further test and inspection be necessitated by faults in the installation or by not compliance with the conditions of supply for each extra test or inspection	Single ph- Rs 100 Three ph -Rs 200 HT Supply- Rs 500	Payable with energy bill
4	Meter test when accuracy disputed by consumer		
	Single Phase	Rs. 75	If the meter is found defective within the meaning of the Indian Electricity Rules 1956, no charge shall be levied. If it is proved to be correct within the permissible limits laid down in the Rules, the amount will be charged in the next energy bill.
	Three Phase	Rs. 200	
	Trivector/ special type meter, HT,EHT metering equipment	Rs. 1250	
5	Removing/ Refixing of meter		
	Single Phase	Rs. 100	Payable with energy bill
	Three Phase	Rs. 200	
	Trivector/special type, Three phase with CT/HT metering equipment	Rs. 550	
6	Changing of meter/meter equipment/fixing of sub meter on the request of the consumer/fixing of sub meter		

S.No.	Purpose	Scale of Charges	Manner in which Payment will be realised
7	Single Phase	Rs. 75	Payable with energy bill
	Three Phase	Rs. 180	
	Trivector/special type meter	Rs. 530	
7	Resealing of meter when seals are found broken		
	Single Phase	Rs. 50	Payable with energy bill
	Three Phase	Rs. 80	
	Trivector/ special type meter	Rs. 200	
8	Fuse call – Replacement		
	Board fuse due to fault of consumers	Rs. 30	Payable with energy bill
	Consumer fuse	Rs. 30	
9	Disconnection/ Reconnection		
	Single Phase	Dis-con: Rs. 75, Re-con- Rs. 75	Payable in advance along with the request by the consumer. If the same consumer is reconnected / disconnected within 12 months of last disconnection/ reconnection, 50% will be added to the charges
	Three Phase	Dis-con: Rs. 150, Re-con- Rs. 150	
	LT Industrial Supply	Dis-con: Rs. 300, Re-con- Rs. 600	
	HT Connection upto 5 MVA	Dis-con: Rs. 750, Re-con- Rs. 1200	
	HT Connection above 5 MVA	Dis-con: Rs. 750, Re-con- Rs. 1500	
10	Replacement of meter card, if lost or damaged by consumer	Rs. 20	Payable with energy bill
11	Security Deposit		As per JSERC (Electricity Supply Code) Regulations, 2015
12	Meter Rent/Month		
	Domestic category Single Phase/ Three phase	Rs. 20/50	Payable with energy bill
	LT meter with CT	Rs. 250	
	11 kV at low Voltage	Rs. 400	
	11 kV at 6.6/ 11 kV	Rs. 600	
	33 kV HT side	Rs 2,500	
	132 kV	Rs 15,000	
	RTS or 220 kV	Rs 15,000	
	13	Replacement of Burnt Meter	Cost of Meter
14	Transformer Rent*		
	Upto 200 KVA	Rs 5500/month	Payable with energy bill
	Above 200 KVA	Rs 7500/month	Payable with energy bill

Applicable for a 6 month duration from the date of taking the transformer on rent, thereafter monthly escalation of 10% would be applicable

- g) **Dishonored Cheques:** - The provision related to dishonor Cheques shall be as per Clause VII of the Terms and Conditions of Supply as provided in Section A11 of this Order.
- h) **Late payment surcharge:** - The Commission approves late Payment Surcharge to be levied for all consumers at the rate of 1.5% per month and part thereof for all consumer

categories. The due date for making payment of energy bills or other charges shall be fifteen days from the date of serving of the bill through e-mail.

- i) **Voltage Rebate:** - The Commission has introduced a voltage rebate for HT industrial category which shall be as per Clause V of the Terms and Conditions of Supply as provided in Section A11 of this Order.
- j) **Power Factor Penalty/ Rebate:** - The Commission has introduced a power factor penalty/ rebate which shall be as per Clause II of the Terms and Conditions of Supply as provided in Section A11 of this Order.
- k) **Load Factor Rebate:** - The Commission has introduced a load factor penalty/ rebate which shall be as per Clause VI of the Terms and Conditions of Supply as provided in Section A11 of this Order.

9.3 The following Open Access charges shall be applicable for FY 2016-17:

a) **Wheeling Charges:** As determined by the CERC for DVC's network

b) **Cross- Subsidy Surcharge:**

- As per Clause 21.5 of the Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2016:

"The Cross subsidy surcharge shall be determined by the Commission in accordance with the principles and formula stipulated in the National Tariff Policy and shall be leviable at the rate as determined by the Commission from time to time."

- The National Tariff Policy, 2016 has stipulated the following formula for computation of Cross Subsidy Surcharge:

$$S = T - [C / (1 - (L / 100)) + D]$$

Where,

S is the surcharge;

T is the Tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation;

C is the weighted average cost of power purchase by Licensee including meeting the renewable purchase obligation;

L is the aggregate of transmission, distribution and commercial losses, applicable to the relevant voltage level, as a percentage;

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level;"

Provided that the surcharge shall not exceed 20% of the tariff applicable to the

category of the consumers seeking open access.

In the absence of voltage-wise losses and wheeling charges, the Commission finds it prudent to approve cross-subsidy surcharge as 20% of the tariff applicable to category of consumer, in accordance with National Tariff Policy.

Accordingly, the CSS approved by the Commission is as follows:

Consumer categories	T- Tariff payable (ABR)	Cross subsidy surcharge (Rs/kWh)
Industrial- HTS 11 KV	4.30	0.86
Industrial- HTS 33 KV	4.23	0.85
Industrial- HTS 132 KV	4.10	0.82
Industrial- HTS 220 KV	4.36	0.87
Railway Traction	5.01	1.00

- The CSS for other categories shall be zero.

c) Additional Surcharge:

- Clause 6.58 of the JSERC Tariff Regulations, 2015 states the following about Additional Surcharge:

“Additional Surcharge shall be determined on ‘case to case’ basis and shall be payable only if the licensee is able to conclusively demonstrate the incidence of any stranded capacity”

- The Commission is of the view that the Utility may also surrender power due to other reasons like seasonal variations, purchases from Power Exchange, RTC short term power purchases of DISCOMs etc. In some cases, additional renewable capacity may have been added to ensure compliance to RPO and not to meet demand. The burden of surrender of power to that extent should be shared by all consumers.
- To ensure only power surrendered due to open access is considered for computation of additional surcharge, only minimum of power backed down/ surrendered and open access quantum should be considered.
- Based on the above argument and the information furnished by the Petitioner, the Commission is of the view that the Petitioner has failed to conclusively demonstrate the incidence of any stranded capacity due to Open Access. It is pertinent to note that the Ministry of Power has brought out a consultative paper on issues related to Open Access which, inter-alia, recommends a methodology for computation of Additional Surcharge. The Petitioner should re-compute the additional surcharge as per the recommended approach and conclusively demonstrate incidence of fixed charge burden due to Open Access.
- Accordingly, the Commission, at the moment has approved an additional surcharge of zero for the FY 2016-17.

A10 : Tariff schedule

APPLICABLE FROM 01.05.2018

I. DOMESTIC SERVICE

Applicability:

1. Domestic Service–Rural and Urban,
2. Domestic Service-HT

This schedule shall apply to private residential premises for domestic use for household electric appliances such as Radios, Fans, Televisions, Desert Coolers, Air Conditioner, etc. and including Motors pumps for lifting water for domestic purposes and other household electrical appliances not covered under any other schedule.

This rate is also applicable for supply to religious institutions such as Temples, Gurudwaras, Mosques, Church and Burial/ Crematorium grounds and other recognised charitable institutions, where no rental or fees are charged whatsoever. If any fee or rentals are charged, such institution will be charged under Commercial category.

Rural drinking water schemes are also included under this Category.

Category of Services:

Domestic Service – Rural: For rural areas (including rural drinking water schemes) not covered by area indicated under DS-Urban.

Domestic Service – Urban: For Urban areas covered by Nagar Nigam, Nagar Parishad, Nagar Panchayat.

Domestic service – HT: This Schedule shall apply for domestic connection in Housing Colonies / Housing Complex / Houses of multi storied buildings purely for residential use for single point metered supply, with power supply at 33 kV or 11 KV voltage level. Individual households in the housing colonies/ multi-storeyed buildings/ housing complexes would pay the same tariff as applicable for this category.

Service Character:

- (i) For Rural: AC, 50 Cycles, Single Phase at 230 Volts.
- (ii) For Urban: AC, 50 Cycles, Single Phase at 230 Volts, Three Phase at 400 Volts.
- (iii) For HT: AC, 50 Cycles, at 11 KV or 33 kV

Tariff:**Table 88: Approved Tariff for Domestic Category for FY 2016-17**

Consumer Category	Fixed Charges		Energy Charges
	Unit	Rate	Rate (Rs./kWh)
Domestic			
All Units (Rural/ Urban)	Rs./Conn/Month	43	4.50
HT	Rs/KVA/month	150	4.00

Delayed Payment Surcharge: In accordance with Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

Prompt Payment Rebate/ Rebate for online payment: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

II. IRRIGATION & AGRICULTURE SERVICE (IAS)

Applicability:

This schedule shall apply to all consumers for use of electrical energy for Agriculture purposes including tube wells and processing of the agricultural produce, confined to Chaff-Cutter, Thresher, Cane crusher and Rice-Hauler, when operated by the agriculturist in the field or farm and does not include Rice mills, Flour mills, Oil mills, Dal mills, Rice-Hauler or expellers.

Service Character:

AC 50 Cycles, Single Phase at 230 volts / 3 Phase at 400 volts

Tariff:

Table 89: Approved Tariff for IAS for FY 2016-17

Consumer Category IAS	Fixed Charges		Energy Charges
	Unit	Rate	Rate (Rs./kWh)
All Units	Rs./HP/Month	20	5.00

Delayed Payment Surcharge, Power Factor Penalty/Rebate: In accordance with Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

Prompt Payment Rebate/ Rebate for online payment: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

III. COMMERCIAL SERVICES (CS)

Applicability:

This schedule shall apply to all consumers, using electrical energy for light, fan and power loads for non-domestic purposes like shops, hospitals (govt. or private), nursing homes, clinics, dispensaries, restaurants, hotels, clubs, guest houses, marriage houses, public halls, show rooms, workshops, central air-conditioning units, offices (govt. or private), commercial establishments, cinemas, X-ray plants, schools and colleges (govt. or private), boarding/ lodging houses, libraries (govt. or private), research institutes (govt. or private), railway stations, fuel – oil stations, service stations (including vehicle service stations), All India Radio / T.V. installations, printing presses, commercial trusts / societies, Museums, poultry farms, banks, theatres, common facilities in multi-storied commercial office/buildings, Dharmshalas, public Electric Vehicles Charging stations and such other installations not covered under any other tariff schedule

This schedule shall also applicable to electricity supply availed through separate (independent) connections for the purpose of advertisements, hoardings and other conspicuous consumption such as external flood light, displays, neon signs at public places (roads, railway stations, airports etc.), departmental stores, commercial establishments, malls, multiplexes, theatres, clubs, hotels and other such entertainment/ leisure establishments.

Service Category:

Commercial Service Rural: For Rural Areas not covered by area indicated for CS- Urban.

Commercial Service Urban: For Urban areas covered by Nagar Nigam, Nagar Parishad, Nagar Panchayat.

Service Character:

Rural: AC 50 Cycles, Single phase at 230 Volts.

Urban: AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts.

Tariff:

Table 90: Approved Tariff for Commercial Category for FY 2016-17

Consumer Category	Fixed Charges		Energy Charges Rate (Rs./kWh)
	Unit	Rate	
Commercial			
All Units	Rs./KW/Month	190	5.00

Delayed Payment Surcharge: In accordance with Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

Prompt Payment Rebate/ Rebate for online payment: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

IV. INDUSTRIAL SERVICES

Applicability:

- Low Tension Industrial Service (LTIS)
- High Tension Voltage Supply Service (HTIS)

Low Tension Industrial Service (LTIS): This schedule shall apply to all industrial units applying for a load of less than or equal to 100 kVA (or equivalent in terms of HP or kW). The equivalent HP for 100 kVA shall be 114 HP and the equivalent kW for 100 kVA shall be 85.044 kW.

High Tension Voltage supply Service (HTIS): The schedule shall apply for consumers having contract demand above 100 kVA.

Service Character:

Low Tension Industrial Service (LTIS): AC, 50 Cycles, Single Phase supply at 230 Volts or 3 Phase Supply at 400 volts. Demand Based tariff / Installation based tariff for sanctioned load upto 85.044 kW.

High Tension Industrial Service (HTIS): 50 Cycles, 3 Phase at 6.6 kV / 11 kV / 33 kV / 132 kV / 220 kV / 400 kV

Tariff:

Table 91: Approved Tariff for industrial services for FY 2016-17

Consumer Category Industrial services	Demand Charges		Energy Charges
	Unit	Rate	Rate
LTIS	Rs/ KVA/ month	100	4.20/ kWh
HTIS		380	3.45/kWh

LTIS – Demand Based: The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. In case actual demand is recorded at more than 100 kVA in any month, the same shall be treated as the new contract demand for the purpose of billing of future months and the consumer will have to get into a new Agreement under the HTIS category for the revised contracted demand with the Petitioner as per the terms and conditions of HT supply.

HTIS: The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. The penalty on exceeding billing demand will be applicable in accordance with Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

Delayed Payment Surcharge: In accordance with Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

Voltage Rebate for HTIS: In accordance with **Clause V** of Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

Power Factor Penalty/Rebate: In accordance with Clause II of Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

Load Factor Rebate for HTIS: In accordance with Clause VI of Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

Prompt Payment Rebate/ Rebate for online payment: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

V. INSTITUTIONAL SERVICES

This tariff schedule shall apply for use of Street Lighting system, Railway Traction, Military Engineering Services

Applicability:

Street Light Service (SS): This tariff schedule shall apply for use of Street Lighting system, including single system in corporation, municipality, notified area committee, panchayats etc. and also in areas not covered by municipalities and Notified Area Committee provided the number of lamps served from a point of supply is not less than 5.

Railway Traction (RTS) and Military Engineering Services (MES): This tariff schedule shall apply for use of railway traction and Military Engineering Services (MES) for a mixed load in defense cantonment and related area.

Other distribution licensees: This tariff schedule shall apply to other distribution licensees procuring power from DVC.

Service Character:

Street Light Service (SS): AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

Railway Traction Service (RTS): AC, 50 cycles, Single phase at 132 kV.

Military Engineering Services (MES): AC, 50 cycles, three phase at 11 KV/ 33 KV/ 132 kV

Other Distribution Licensees: AC, 50 cycles, three phase at 11 KV/ 33 KV/ 132 kV

Tariff:

Table 92: Approved Tariff for Institutional Service for FY 2016-17

Consumer Category Institutional services	Fixed Charges/ Demand Charges		Energy Charges Rate (Rs./kWh)
	Unit	Rate	
Street Light (Metered)	Rs./Conn/Month	100	4.60
Railway Traction Services, Military Engineering Services and other Licensees	Rs./kVA/Month	380	3.40

*Note: The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. The penalty on exceeding billing demand will be applicable in accordance with Clause I of Terms & Conditions of Supply as provided in Section A13 of this Tariff Order.

Delayed Payment Surcharge:

In accordance with Terms & Conditions of Supply as provided in Section A11 of this Tariff Order

Prompt Payment Rebate/ Rebate for online payment: In accordance with Clause IV of Terms & Conditions of Supply as provided in Section A11 of this Tariff Order.

A11 : Terms and conditions of supply

- 11.1 Besides the Terms and Conditions provided in the JSERC (Electricity Supply Code), Regulations, 2015 and as amended from time to time, the Commission approves the following additional terms & conditions of supply.

Clause I: Billing Demand

- 11.2 The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. In case of the actual demand exceeding 110% of the contract demand, the consumer shall pay penal charges for the exceeded demand. The penal charges would be charged as follows:
- 11.3 If the recorded demand exceeds 110% of Contract Demand, then the demand charge upto 110% of contract demand will be charged as per the normal tariff rate. The remaining recorded demand over and above 110% will be charged @ 1.5 times the normal tariff rate.
- 11.4 In case actual demand is higher than the contract demand for three continuous months, the same shall be treated as the new contract demand for the purpose of billing of future months and the consumer will have to get into a new agreement for the revised contract demand with the licensee.
- 11.5 Once the actual demand is recorded to be higher than contract demand for two continuous months, the licensee would serve notice to the consumer after the end of the second month for enhancement of the contract demand. The consumer would be liable to respond within 15 days of receipt of such notice and submit application for enhancement of contract demand to the licensee. The licensee would, within 15 days of receipt of response from the consumer, finalize the new agreement after making necessary changes at consumer's installations.
- 11.6 In case the consumer fails to respond within 15 days, the licensee would have the right to initiate enhancement of load as per the last recorded contract demand. While, in case the consumer provides an undertaking that the actual demand shall not exceed the contract demand again for a period of at least six months from the last billing, the licensee shall continue to bill the consumer as per the existing contract demand and billing demand.
- 11.7 Provided that if the consumer fails to adhere to the undertaking and the actual demand exceeds the contract demand within the subsequent six months of the undertaking, the consumer shall have to pay a penal charge of 2 times the normal tariff for a period of three consecutive months and the licensee shall, after serving 7 days' notice to the consumer, enhance the contract demand of the consumer as per the last recorded actual demand.

Clause II: Power factor Penalty/ Rebate***Power Factor Penalty***

- 11.8 Power Factor Penalty will be applicable in case of maximum demand meters.
- 11.9 In case average power factor in a month for a consumer falls below 0.85, a penalty @ 1% for every 0.01 fall in power factor from 0.85 to 0.60; plus 2% for every 0.01 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on both demand and energy charges; plus 3% for every 0.01 fall below 0.30.

Power Factor Rebate

- 11.10 Power Factor rebate will be applicable in case of maximum demand meters.
- 11.11 In case average power factor as maintained by the consumer is more than 90%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% on both demand and energy charges shall be applicable.

Clause II: Interest on Delayed payment

- 11.12 The Delayed Payment Surcharge will be levied for all consumers at the rate of 1.5% per month and part thereof for all consumer categories. The due date for making payment of energy bills or other charges shall be as stipulated in the JSERC (Supply Code) Regulations, 2015 and its amendments which is presently minimum 15 days after issue date of bill for LT Domestic, Commercial and Agriculture category and minimum 21 days after issue date of bill for other categories. The bill should be generated and delivered on monthly basis. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by licensee.

Clause III: Jharkhand Electricity Duty

- 11.13 The charges in this tariff schedule do not include charges on account of Electricity Duty/Surcharge to the consumers under the Jharkhand Electricity Duty Act, 1948 and the rules framed there under as amended from time to time and any other Statutory levy which may take effect from time to time after making corrections for the loss in the distribution system.

Clause IV: Prompt Payment Rebate

- 11.14 The applicable prompt payment rebate has been summarized in table below:

Table 93: Prompt payment rebate

No. of days from the date of presentation of the bill	% rebate
Within 2 days	2.00
3 days to 5 days	1.67
6 days to 12 days	1.20
13 days to 30 days	0.00

- 11.15 To motivate the consumers to make online payment of the bills through online web portal or digital methods, a rebate of 1% of the billed amount in addition to the above mentioned prompt payment rebate shall be allowed. However, online payment rebate shall be applicable if the consumer makes full payment of the bill within due date.

Clause V: Voltage Rebate

- 11.16 Voltage rebate will be applicable on energy charges as given below:

Table 94: Voltage Rebate

Consumer Category	Voltage Rebate
HTIS – 33 kV	3.00%
HTIS – 132 kV	5.00%
HTIS – 220 kV	5.50%
HTIS – 440 kV	6.00%

Note: The above rebate will be available only on monthly basis and consumer with arrears shall not be eligible for the above rebate. However, the applicable rebate shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

Clause VI: Load Factor Rebate

- 11.17 Load Factor rebate will be applicable on energy charges only as given below:

Table 95: Load Factor Rebate

Load Factor	Load Factor Rebate
40-60%	Nil
60-70%	7.50%
70-100%	10.00%

Note: The above rebate will be available only on monthly basis and consumer with arrears shall not be eligible for the above rebate. However, the applicable rebate shall be allowed to consumers with outstanding dues, wherein such dues have been stayed by the appropriate authority/Courts.

Clause VII: Electricity Supply Code

- 11.18 The Jharkhand State Electricity Regulatory Commission (Electricity Supply Code) Regulation 2015 as amended from time to time will be followed wherever applicable.

Clause VII: Other Terms & Conditions

Reduction in Fixed Charges

- 11.19 In case of power outages beyond the scheduled load shedding hours, DVC shall be liable to pay penalty to the affected consumers in form of pro-rata reduction in Fixed/ Demand charges for power outages beyond the scheduled load shedding hours.

Point of Supply

- 11.20 The Power supply shall normally be provided at a single point for the entire premises. In certain categories like coal mines power may be supplied at more than one point on request of consumer subject to technical feasibility. But in such cases metering and billing shall be done separately for each point.

Dishonored Cheques

- 11.21 In the event of dishonored cheque for payment against a particular bill, the Licensee shall charge a minimum of Rs 300 or 0.5% of the billed amount, whichever is higher. The DPS shall be levied extra as per the applicable terms and conditions of DPS for the respective category.

Stopped / Defective Meters

- 11.22 In case of existing consumers with previous consumption pattern, the provisional average bill shall be issued on the basis of average of previous twelve months consumption.
- 11.23 In case of meter being out of order from the period before which no pattern of consumption is available, the provisional average bill shall be issued on the basis of sanctioned/ contract load on following load factor applicable to respective categories, as shown below:

Table 96: Load factor applicable for different categories

Consumer Category	Load Factor
Domestic & Religious Institutions	0.10
Commercial	0.20
LTIS/PHED LT	0.15
DS-HT	0.15
HTS	
11 kV	0.25
33 kV	0.30
132/220/440 kV	0.50
HTSS	0.50
RTS	0.25

Sale of Energy

- 11.24 No consumer shall be allowed to sell the electricity purchased from the Licensee for any other person/ entity.

Release of new connections

- 11.25 No new connections shall be provided without appropriate meter. The tariff for unmetered connections shall be applicable only to the existing un-metered connections, until they are metered.

Temporary Supply

11.26 The Temporary tariff shall be applicable as per the following conditions:

- a) Temporary tariff is to be equivalent to 1.5 times of the applicable demand and energy charges for temporary connections falling in each prescribed tariff category with all other terms and conditions of tariff remaining the same.
- b) Temporary connections shall be made to pay consumption security deposit equivalent to 30 days of sale of power which shall be based on the assessment formula (LDHF) prescribed by the Commission.
- c) Temporary connections shall initially be provided for a period of up to 30 days which can be extended on month to month basis upto six months.

Conversion factors

11.27 The following shall be the conversion factors, as and where applicable (PF=0.85):

1 Kilowatt (KW) = 1.176 Kilovolt ampere (kVA)

1 Kilowatt (KW) = 1 / 0.746 Horse Power (HP)

1 Horse Power (1 HP) = 0.878 Kilovolt ampere (KVA)

Fuel Price & Power Purchase Adjustment (FPPPA)

11.28 Applicable as per the Clause 6.60 to 6.68 of the Distribution Tariff Regulations, 2015 and as amended by the Commission from time to time.

A12: Directives

Power supply below 33 KV

- 11.29 The Petitioner is directed to provide details of applications for release of connections for LT consumers and their current status along with its next Tariff Petition. The Petitioner is also directed to submit details of action taken to facilitate applications for connections to be made by LT consumers along with its next Tariff Petition.
- 11.30 DVC is directed to come up with their investment proposal, as per provision of the Tariff Regulations, required to build up infrastructure to give electric supply to all consumers including low and medium voltage consumers under their area of supply.

Facilitation of applications for new connection

- 11.31 The Commission directs the Petitioner to make necessary arrangements to ensure that applications for new connections are accepted at every Grid Sub Station. The Petitioner should also explore other avenues of application submission.

Submission of impact analysis and requisite data along with proposal for introduction of ToD Tariff

- 11.32 The Commission directs the Petitioner that proposal for introduction of Time of the Day (TOD) based tariff must include a detailed analysis on the impact of ToD tariff on the consumer categories that it is proposed to be levied on. The proposal may contain:
- (a) Identification of system peak period and off-peak period, through the analysis of the system load curve to devise the TOD structure (time bands);
 - (b) Proper load profiling of the consumer categories for which TOD is slated to be introduced, through installation of proper meters;
 - (c) Estimation of the load shifting through the use of different tariff differentials through a study on sample consumers;

Compliance to RPO

- 11.33 The Commission directs the Petitioner to comply with the Renewable Purchase Obligations (RPO) as per the relevant Regulations, failure of which may lead to penalty.

Quality of power/ Reliability Indices and Standard of Performance (SOP)

- 11.34 The Commission directs the Petitioner submit a monthly report on Reliability Indices in MS-Excel format along with compliance to SOPs in true spirit, in course of achieving 24x7 quality & reliable power.

Revenue from Trading business

- 11.35 The Commission directs the Petitioner to submit the details of energy transacted through power exchanges along with its next tariff petition. The details should include the date, quantum and revenue from sale through power exchanges for the previous financial year

FY 2016-17, FY 2017-18 as well as current financial year FY 2018-19 up to the date of filing of Tariff Petition.

Investment in Cyber Security solutions

- 11.36 Owing to widespread cases of compromise of various Government websites in the country, the Commission is of the view that deployment of cyber security solutions needs to be looked into. Moreover, with increasing focus on digital mode of payment coupled with the rebate on payment of electricity bills online/ through digital mode, it becomes even more important to invest in cyber security solutions. In this regards, the Petitioner may look into the possibilities of investing in such cyber security solutions. The cost incurred on such investment shall be allowed to be recovered through the ARR, subject to prudence check.

Strengthening/ Increasing effectiveness of consumer grievance redressal mechanism

- 11.37 The Commission directs the Petitioner to strengthen and increase effectiveness of its consumer grievance handling mechanism and submit a report to the Commission along with the next Tariff Petition indicating- total number of complaints received, nature of complaint, complaints resolved, average resolution time, complaints pending etc.

Bank Guarantee for security deposit above Rs 10 Lakhs

- 11.38 The Commission directs the Petitioner to strictly comply with Clause 8.2.20 of the JSERC (Supply Code) Regulations, 2015 as per which:

“The Consumer whose total amount of Security Deposit exceeds Rs. 10 Lacs may, at his option, furnish irrevocable Bank Guarantee from a nationalized or scheduled commercial Bank initially valid for a period of two years. It shall be the responsibility of the consumer to keep the Bank Guarantee valid at all times and to renew the Bank Guarantee at least 2 months prior to its expiry”

- 11.39 The above mentioned clause shall be applicable for all existing as well as new consumers.

Optimisation of Power Purchase Cost

- 11.40 The Commission directs the Petitioner to undertake a detailed demand forecasting exercise for short term, medium term as well as long term based on which it should devise a power procurement strategy with higher focus on managing short term procurement of power through various avenues and optimising costs for procurement other than long term sources.

Approval of PPAs

- 11.41 The Commission directs TSL to submit, for approval, all the PPAs which have not yet been approved by the Commission within three months of the date of issuance of this Tariff Order.

Consolidated tariff petition for FY 2019-20

11.42 The Commission directs the Petitioner to file a consolidated Petition for determination of ARR and Tariff for FY 2019-20 along with the True-up of FY 2016-17 and FY 2017-18 and APR for FY 2017-18 within the timelines stipulated in the Tariff Regulations, viz. November 30th, 2018.

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on this the 18.05.2018.

It is made clear that the Order regarding revision of tariff shall come into effect from 01.05.2018 and shall remain in force till the next order of the Commission to that regard.

Date: 18.05.2018

Place: Ranchi

**Sd/-
(Shri R. N. Singh)
MEMBER (T)**

**Sd/-
(Dr. Arbind Prasad)
CHAIRPERSON**

Annexure- 1: List of participating members of public in the public hearing

- Hazaribagh

Sl. No.	Name S/Shri	Address / Organisation if any
1	Manabendra	ED (Coml.), DVC Kolkata
2	Deb Kumar Aich	PCE (E), DVC
3	Subbrata Ghosal	D&E (Coml.), DVC
4	Subodh Kumar Datta	CE (E), CLD, DVC
5	Debshankar Ghosh	A.E. (E) Comml. DVC
6	Satish Kumar	AE (E) Coml., DVC
7	Pulak Bhattcharya	DGM (F), Coml., DVC
8	Sulrata Ganguly	Dy. CE (E), Coml., DVC
9	Santosh Kumar Kumdan	SE, CLD, DVC
10	Sauvik Dhara	SE, Coml, Kolkata
11	Rajib Goswami	DCE (E), DVC, Kolkata
12	A. Chakaraborty	DCE (E), DVC, Kolkata
13	H. K. Bhudia	Bihar Foundry
14	Bhushan Raswai	Mercados EMI
15	Saurabh Srivastava	Mercados EMI
16	Rakesh Kumar Singh	Shree Bholey Alloye Pvt. Ltd.
17	A. K. Jha	Sr. CE, DVC Maithon
18	D.P. Puitand	SE (E), DVC, Hazaribagh
19	Pramod Agrawala	Association of DVC Consumer
20	Bijay	Dayal ferrow Alloys
21	Sunil Kumar Thakur	CE (C&R), JBVNL
22	Kavi Yagnik	Sai Electrocasting Pvt. Ltd.
23	Sudhir Kumar Singh	GM Cum CE/H. Bagh
24	Prabhat Kumar Srivastava	ESE/Hazaribagh
25	Ishan Srivastava	Sr. Consultant, Deloitte
26	Dhananjay Kumar	Maihar Alloys (P) Ltd.
27	Mazhar Khan	Radhacasting Matalik (P) Ltd.
28	Rishi Nandan	ESE, JBVNL
29	Anil Agrawal	Yash Alloys (P) Ltd.
30	Sunil Kumar Agrawal	Rughta Poly.
31	Ashok Kumar Agrawal	Rughta Poly.

- Maithon

Sl. No.	Name S/Shri	Address / Organisation if any
1	Manalendra Biswas	ED (Coml.), DVC
2	Deb Kumar Aich	PCE (Coml.), DVC
3	Subodh Kumar Datta	CE (CLD), DVC, Maithon
4	Pulak Bhattacharya	DGM (F), DVC, Kolkata
5	Subrata Ghoshal	DCE (Coml.), DVC, Kolkata
6	Sauvik Dhara	SE (Coml), DVC, Kolkata
7	Subrata Ganguly	Dy. CE (Coml.), DVC, Kolkata
8	Satish Kumar	A.E. (E), DVC, Kolkata
9	D. Ghoshal	A.F. (E), DVC, Kolkata
10	Indrajit Nandi	Member CGRF
11	Rajesh Kumar	Member CGRF
12	A.K. Sarkat	DVC, DYCE (Coml.)
13	Shubhakaran Chouraria	Maithon
14	S.K. Kundu	SE, CLD, DVC
15	Sushil Singh	Kumardhubi Steel (P) Ltd.
16	Saurabh Kumar	V Sponge Gridih
17	Birendra Roy	Ridhi Sidhi Iron Pvt. Ltd.
18	Bidyut Biswas	EE, DVC, ULDC, Maithon
19	S. Moitra	Sr. Man (F)
20	B. K. Apenale	Angclcy
21	Dr. P. Das Gupta	Dy. CMO
22	S. Mishra	CE, C&M, Maithon
23	S. Mondal	SE(E), CRITM
24	D. Dey	CLD
25	U.K. Thakur	SSA(R) (PG) CRITL
26	M. Kumar	SSA(R) (PG) CRITL
27	Vinay Kumar	CTC, DVC, Maithon
28	C. De	SDE (E), Trans, DVC, Maithon
29	U.S.Band	CE (E), Trans
30	P. Mukharjee	EE, CTC, DVC, Maithon
31	A. Lahi	CHSO
32	S. K. Lal	Add. Direc. (HR)
33	S.C. Singh	Add. Direc. (HR)

Appendix-1

Station	Normative Availability (NAPAF) (%)	Actual Yearly Plant Availability Factor (PAFY) (%)	Annual Fixed Charge (AFC) (in Rs. Lakh)	Cost of Secondary Fuel Oil & Adjustments (in Lakh)	Annual Fixed Charge excluding Cost of Sec. Fuel Oil & Adjustments (AFC) (in Rs. Lakh)	Applicable CERC Formula	Total Recoverable fixed charges as per CERC formula (in Rs. Lakh)	Share of firm consumer	Total Recoverable Fixed charge from Firm Consumers (in Rs. Lakh)
	A	B	C	D	E = C - D		F = E * (B / A)	G	H = F X G
BTPS 'B'	75	60.16	25498.57	-	25498.57	AFC x (PAFY/ NAPAF)	20454.74	89.21%	18247.89
CTPS U # 1,2,3	75	79.73	21382.13	-	21382.13	AFC x (PAFY/ NAPAF)	21382.13	89.50%	19137.18
DTPS U # 3,4	74	61.77	22565.86	2963.22	19602.64	AFC x (PAFY/ NAPAF)	16363.74	86.48%	14151.30
MTPS U#1 to 3	83	62.04	32493.58	-	32493.58	AFC x (PAFY/ NAPAF)	24286.53	86.07%	20902.88
MTPS U#4	85	60.76	15938.25	-	15938.25	AFC x (PAFY/ NAPAF)	11392.31	94.33%	10746.41
MHS	80	80.00	3027.37	-	3027.37	AFC x (PAFY/ NAPAF)	3027.37	91.56%	2771.81
PHS	80	80.00	2539.69	-	2539.69	AFC x (PAFY/ NAPAF)	2539.69	91.56%	2325.30
THS	80	80.00	817.67	-	817.67	AFC x (PAFY/ NAPAF)	817.67	91.56%	748.65
T & D System	98	98.43	51767.69	-	51767.69	AFC x (TAFY/ NATAF)	51767.69	100.00%	51767.69
SUB-TOTAL	-	-	176030.81		173067.59		152031.87	-	140799.11
MTPS U#5 & 6	83	82.44	59322.70	2022.04	57300.66	AFC x (PAFY/ NAPAF)	56912.57	29.39%	16725.19
MTPS U# 7 & 8	83	80.29	108636.85	-	108636.85	AFC x (PAFY/ NAPAF)	105093.51	50.03%	52582.38
CTPS U # 7 & 8	83	70.24	59586.68	1891.44	57695.24	AFC x (PAFY/ NAPAF)	48824.25	3.34%	1631.78
DSTPS U # 1 & 2	83	58.10	130436.45	4438.63	125997.82	AFC x (PAFY/ NAPAF)	88197.95	61.99%	54673.77
KTPS U # 1 & 2	83	40.35	133072.30	4713.32	128358.98	AFC x (PAFY/ NAPAF)	62401.77	85.03%	53059.31
SUB-TOTAL	-	-	491054.98		477989.55		361430.06		178672.44
GRAND TOTAL	-	-	667085.79		651057.14		513461.93		319471.54