

Jharkhand State Electricity Regulatory Commission



**Order
on
True-up for FY 2006-07 to FY 2013-14
And
Annual Performance Review for FY 2014-15
for
DVC Command Area of Jharkhand**

**Damodar Valley Corporation
(DVC)**

Ranchi

April 2017

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List of Abbreviations

Abbreviation	Description
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
Rs	Rupees
SAP	System, Application and Production
SBI	State Bank of India

Before

**Jharkhand State Electricity Regulatory Commission,
Ranchi**

Case (T) No. 02 of 2016

In the matter of:

Petition for Truing up for FY 2006-07 to FY 2013-14;

And

Annual Performance Review for FY 2014-15;

In the matter:

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

.....Petitioner

PRESENT

Hon'ble Mr Justice Narendra Nath Tiwari - Chairperson

Hon'ble Mr R. N Singh - Member (T)

Order dated 19 April, 2017

In this Petition, Damodar Valley Corporation (hereinafter referred to as DVC) has prayed for Order of True up for FY 2006-07 to FY 2013-14 and Annual Performance Review of FY 2014-15 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 August 22, 2002. The Commission became operational w.e.f. April 24, 2003. The Electricity Act, 2003 (hereinafter referred to as “the Act” or “EA, 2003”) came into force w.e.f. June 10, 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 August 22, 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 licences 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) reorganisation 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, so 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 True-up of ARR from FY 2006-07 to FY 2013-14 and Annual Performance Review (APR) for FY 2014-15 for supply in Damodar valley area falling within the territorial jurisdiction of the State of Jharkhand. 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, 2004 (hereinafter referred to as 'Distribution Tariff Regulations, 2004') and JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 (hereinafter referred to as 'Distribution Tariff Regulations, 2010').
- 1.12 While processing the above Petition, the Commission has taken into consideration the following:
- (a) Provisions of the Electricity Act 2003;
 - (b) Principles laid down in the National Electricity Policy;
 - (c) Principles laid down in the National Tariff Policy; and
 - (d) Provisions of the JSERC 'Distribution Tariff Regulations, 2004'
 - (e) Provisions of the JSERC 'Distribution Tariff Regulations, 2010'

A2: PROCEDURAL HISTORY

Background

- 2.1 DVC filed the present Petition on 04 January, 2016 for True-up of the revenue requirements and tariff admissible to DVC 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 for the period FY 2006-07 to FY 2013-14 and Annual Performance Review for FY 2014-15.
- 2.2 Earlier, DVC filed the Tariff Petition for determination of ARR from FY 2006-07 to FY 2012-13 and retail tariff for FY 2012-13 for supply in Damodar valley area falling within the territorial jurisdiction of the State of Jharkhand on 2nd September 2011. The Commission issued the provisional tariff order on 22nd November, 2012.
- 2.3 DVC had also filed petitions on October 31, 2009 and March 31, 2011 for finalization of ARR for the tariff period FY 2006-07 to FY 2010-11 and FY 2009-10 to FY 2011-12, respectively for the determination of tariff for 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. A Petition was also filed by DVC on March 31, 2007 for finalization of revenue requirements and tariff for the period of FY 2006-07. The said Petition could not be processed by the Commission as the tariff for generation and transmission of electricity applicable to DVC, which is the input tariff to be determined by CERC, was not finalized and also the Hon'ble Appellate Tribunal for Electricity (ATE) directed in the appeals arising out of orders passed by CERC that no final orders be passed by the State Commissions on the retail supply tariffs till further Orders.

DVC Case History

- 2.4 Central Electricity Regulatory Commission (CERC) by Order dated October 3, 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 April 1, 2006 to March 31, 2009.
- 2.5 DVC, aggrieved by the order dated October 3, 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 December 6, 2006, January 15, 2007 and February 26, 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.

2.6 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.

2.7 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*

2.8 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*

2.9 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.

2.10 The ATE, by its Order dated May 10, 2010, directed the Petitioner to approach the concerned SERCs for finalising 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.”

- 2.11 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.
- 2.12 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.”

- 2.13 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.
- 2.14 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."*
- 2.15 In accordance with the above, the Commission initiated the process of undertaking Final True-up of the previous years.
- 2.16 Further, on 28th February, 2017, the Petitioner submitted additional information pertaining to True-up of FY 2006-07 to FY 2013-14 and APR of FY 2014-15, thereby revising the ARR based on revised revenue realised figures as well as revised input cost of its generating stations based on the final Orders of the CERC.

Information Gaps in the Petition

- 2.17 During the course of scrutiny of the Petition, several deficiencies were observed which were communicated to the Petitioner through letter nos. Letter No. JSERC/Case (T) No. 02 of 2016/863 dated 02.02. 2016, Letter No. JSERC/Case (T) No. 02 of 2016/10 dated 03.04.2017. The Petitioner submitted its replies in response to the queries vice letter no. Coml. /Tariff/JSERC/-3794 dated 04.03.2016, Comml/CE/Tariff-34 dated 06.04.2017.
- 2.18 The Commission also held detailed discussion with the officials of the Petitioner on 11.04.2017 at Commission's office in Ranchi.

Inviting Public Response

- 2.19 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.
- 2.20 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
Telegraph	28 th & 29 th January 2017
Times of India	28 th & 29 th January 2017
Prabhat Khabar	28 th & 29 th January 2017
Dainik Jagran	28 th & 29 th January 2017

- 2.21 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
Prabhat Khabar	23.02.2017
Dainik Jagran	23.02.2017
Morning India	23.02.2017
Dainik Bhaskar	24.02.2017
Hindustan	24.02.2017
Pioneer	24.02.2017

- 2.22 The public hearing was held on March 6th, 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.
- 2.23 Further, as stated earlier, the Petitioner, on 28th February, 2017, had submitted additional information pertaining to True-up of FY 2006-07 to FY 2013-14 and APR of FY 2014-15, thereby revising the ARR based on revised revenue realised figures as well as revised input cost of its generating stations based on the final Orders of the CERC.
- 2.24 In order to provide opportunity to the stakeholders for their comments/ suggestions on the additional information submitted by the Petitioner on 28.2.2017, the Commission directed the Petitioner to issue public notice for inviting comments/ suggestions from public on the additional information submitted by it.
- 2.25 The Commission, in order to afford further opportunity of hearing to the stakeholders, fixed date and time for hearing and published notice thereafter on its website www.jserc.org and in various newspapers regarding the second public hearing on the additional information filed by DVC. The newspapers in which the notice for the second public hearing was published by the Commission are detailed hereunder:

Table 3: List of Newspapers where public notice was published by Commission for the second Public hearing

Newspaper (Jharkhand Editions)	Date
Prabhat Khabar	22.03.2017
Dainik Jagran	22.03.2017
Morning India	22.03.2017
Dainik Bhaskar	22.03.2017
Hindustan	22.03.2017
Pioneer	22.03.2017
Prabhat Khabar	22.03.2017
Dainik Jagran	22.03.2017

- 2.26 The second public hearing was held on April 2nd, 2017 at Hotel Treat, Thana Chowk, Ramgarh. 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.

A3: SUMMARY OF THE ARR PETITION**Overview**

3.1 DVC has filed the present Petition with respect to the retail supply of power in the Damodar Valley Area falling within the State of Jharkhand and includes following:

(a) True-up of Annual Revenue Requirement (ARR) for FY 2006-07 to FY 2013-14 based upon the actual information submitted by the Petitioner for the aforementioned years;

(b) Annual Performance Review (APR) for FY 2014-15;

Aggregate Revenue Requirement

3.2 The following table provides a summary of the ARR as submitted by the Petitioner for FY 2006-07 to FY 2014-15:

Table 4: ARR Requirement for FY 2006-07 to FY 2014-15 as submitted by DVC (Rs Cr)

S. No.	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
1.	Own generation cost	2,523.16	2,466.62	2,601.92	3,808.52	4,191.65	5,344.64	6,161.70	7,574.82	6,435.70
2.	Power Purchase Cost	35.42	84.92	82.10	753.11	600.04	681.68	913.98	1,009.50	1,221.77
3.	T&D Cost	164.32	173.19	173.73	Incl. in own generation cost.					
4.	Pension as allowed by CERC	684.01	684.01	729.01						
5.	Sinking fund contribution as allowed by CERC	40.43	30.72	27.55						
6.	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
7.	Water and Pollution Cess				2.79	2.75	2.06	2.72	2.02	2.50
8.	Total Cost	3,447.59	3,439.70	3,614.63	4,565.53	4,795.61	6,029.76	7,081.31	8,589.88	7,662.96
9.	Non-Tariff Income	7.65	12.22	24.26	1.89	7.63	28.54	31.60	20.79	71.57
10.	Net Cost	3,439.94	3,427.48	3,590.37	4,563.64	4,787.98	6,001.22	7,049.71	8,569.09	7,591.39
11.	Allocation of Cost to Jharkhand Area in ratio of energy sales in Jharkhand area	2,159.12	2,046.65	2,154.24	2,662.70	2,847.28	3,532.56	4,013.33	4,895.21	4,435.60
12.	Add: Cost of Solar Power									48.63

DVC Order on True-up for FY 2006-07 to FY 2013-14 and APR for FY 2014-15

S. No.	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
13.	Purchased to meet the solar RPO in the state of Jharkhand									
	Add: Tariff filing & publication fees allocated to Jharkhand Area	0.11	0.11	0.11	0.11	0.11	0.34	0.34	0.38	0.58
14.	Add: Interest on working capital for Jharkhand area	1.97	1.94	2.45	2.56	2.38	70.87	91.73	106.50	101.42
15.	Add: Interest on Security Deposits						1.02	2.11	1.27	1.24
16.	Total ARR for retail supply in Jharkhand Area	2161.20	2048.69	2156.79	2665.37	2849.76	3604.80	4107.52	5003.36	4587.48
17.	Revenue Realised from Sale of Power	1923.20	1586.35	1996.14	2092.40	2021.59	2571.89	3607.17	3304.18	4167.61
18.	Revenue Gap for Jharkhand Area	238.00	462.34	160.65	572.96	828.17	1032.91	500.34	1699.18	419.87

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 March 6th, 2017 in Maithon, Dhanbad & April 2nd 2017 at Ramgarh.
- 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 for True-Up for FY 2006-07 to FY 2013-14 and Annual Performance Review for FY 2014-15.
- 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 for the FY 2006-07, FY 2007-08 & FY 2008-09 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 FY 2009-10 to 2014-15 considering the Annual Fixed Charges (AFC) approved by the CERC based on projected expenditure amounts although final tariff orders for most of the stations for the period 2009-14 and few stations for the period FY 2014-19 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 (04/01/2016) of the instant petition before the Commission.
- 4.11 The Petitioner submitted that the fixed charges as allowed by CERC in such orders has been taken care of in APR Petition for 2015-16 as well as the additional information with respect to the instant petition as filed before the JSERC in February 2017.

Views of the Commission

- 4.12 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.

Admissibility of Pension, Gratuity & Sinking Fund

Public Comments/Suggestions

- 4.13 The Objectors submitted that the Petitioner in his petition has stated that the quantum of pension, gratuity & sinking fund is not required to be determined by the State Commission and therefore the Commission ought to include the same in totality, as determined by CERC, without linking it to the availability of the plants.
- 4.14 The Objector pointed out that the contribution to Pension, Gratuity & Sinking fund has already been considered by CERC in the AFC of the Petitioner's generating stations and as per section 21 of the 2009 regulations, the fixed cost of the generating stations is to be determined annually based on the Actual & Normative plant availability factor. Hence, the petitioner requested the Commission to disallow the claim made by the petitioner.

Petitioner's Response

- 4.15 The Petitioner submitted that the claims made by the DVC are legal and admissible as per article 21 of the 2009 regulation wherein the special consideration of DVC's claim on account of pension & Gratuity as well as Sinking fund, as allowed by CERC in compliance of the directives of the Hon'ble Appellate Tribunal for Electricity.
- 4.16 The Petitioner submitted that the recovery of fixed charge based on availability are applicable only for the items covered under article 21 of 2009 regulation of the CERC. The Petitioner referred to APTEL order & judgement dated 23/11/2007 which has been reproduced below:

"As a general rule, once the Commission, after prudence check, has agreed with the need for funding the pension and Gratuity Contribution funds, DVC should have been allowed to recover Entire amount from the consumers through Tariff..."

- 4.17 Accordingly, the Petitioner has submitted that entire amount has been claimed in the petition as any amount in excess or less than the actual cannot be claimed.

Views of the Commission

- 4.18 The Commission agrees with the view of the Objectors. It is pertinent to note that as per the CERC Tariff Regulations, 2014-19, the recovery of fixed cost is linked to the actual availability of the generating stations.
- 4.19 The Petitioner had raised this issue in its last MYT Petition for the Control Period FY 2013-14 to FY 2015-16. The Commission, in its MYT Order dated 04.09.2014 for the Control Period FY 2013-14 to FY 2015-16, had observed thus:

“The Commission views that the contribution to Pension and Gratuity and Sinking fund has already been considered by CERC in the Annual Fixed Charges of the DVC’s generating stations. Further, as per Section 21 of the CERC Regulations, the fixed costs of the generating stations shall be computed on annual basis based on actual plant availability factor as well as the normative plant availability factor. Hence, the claim of the Petitioner finds no merit...”

- 4.20 The Hon’ble APTEL, in its Judgement dated 23.03.2016 (Appeal No. 255 of 2014), has upheld the above-said Order of the Commission and has rejected the contention of the Petitioner. Therefore, the Commission has computed the fixed charges for FY 2009-10 and FY 2010-11, including the contribution towards Pension & Gratuity Fund and Sinking Fund, linked to plant availability, as per the formula applied by the CERC.

Loss Levels

Public Comments/Suggestions

- 4.21 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

- 4.22 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....”

- 4.23 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 201-14 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 (FY 2006-07 to FY 2011-12).

Views of the Commission

- 4.24 The Commission, in the MYT Order dated 04.09.2014, had set a T&D loss target of 3.00% for the Control Period FY 2013-14 to FY 2015-16. The Commission finds that the Petitioner has failed to achieve the loss target in the years FY 2013-14 and FY 2014-15. The Petitioner has reported T&D loss of 4.86% and 3.58% in FY 2013-14 and FY 2014-15 respectively. Accordingly, while computing the energy requirement for FY 2013-14 and FY 2014-15, the Commission disallows power procured in excess of normative loss levels.

Power purchase Cost

Public Comments/Suggestions

- 4.25 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.
- 4.26 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.
- 4.27 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

- 4.28 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.
- 4.29 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

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

Non-Tariff Income

Public Comments/Suggestions

- 4.31 The objector submitted that the actual Non-Tariff Income as per audited accounts are far in excess of those claimed by the Petitioner for the period FY 2006-07 to FY 2014-15 and quoted the relevant JSERC Tariff Regulation to clarify the items to be considered as Non-Tariff income and prayed to the Commission to consider Non-Tariff Income as per the Regulations.

Petitioner's Response

- 4.32 The Petitioner submitted that the issue has already been settled by the Commission in its earlier Order after prudence check. The Petitioner quoted the relevant portion of the order which has been reproduced below:

“5.3.4 The Commission's representatives verified the submissions made by the Petitioner from the Accounting system (TALLY) of the Petitioner. Accordingly, the Commission approves the actual non-tariff income pertaining to delay payment surcharge as RS.7.65Cr.,Rs.12.22 Cr., Rs.1.89 Cr., and Rs.7.63Cr. respectively for the aforementioned years.”

Views of the Commission

- 4.33 The Commission has hereafter dealt with this issue in detail in the section on Non-Tariff Income.

Water & Pollution Cess

Public Comments/ Suggestions

- 4.34 The Objectors submitted that the Petitioner had claimed water & pollution cess from FY 2009-10 to FY 2014-15 which is not covered under any clause of Tariff Regulations 2010. Hence, the Objector requested the Hon'ble Commission to disallow the claims made by the petitioner.

Petitioner's Response

- 4.35 The Petitioner submitted that the Commission in its MYT order dated 04.09.2014 allowed the water cess for the period 2013-14, 2014-15 & 2015-16 and denied the objector's submission as wrongly claimed by the petitioner.

Views of the Commission

- 4.36 The Commission, in the MYT Order dated 04.09.2014, had provisionally allowed the water and pollution cess, a statutory obligation for the generating stations, subject to actuals. The Commission has now scrutinised the audited information on water and pollution cess and has accordingly approved the same.

Revenue from the sale of Power

Public Comments/Suggestions

- 4.37 The Objector submitted that the Petitioner considered the Non-Realisation of revenue accrued out of sale of power to the consumers is linked with and is a reflective of the inefficiency on the part of the Petitioner.
- 4.38 The Objector further submitted that the Revenue from the sale of power has been reduced from the allowable true-up ARR for each of the relevant FY 2006-07 to FY 2013-14 and the APR for FY 2014-15 to arrive at the revenue gap / (surplus) to be allowed for recovery of ARR in the next control period. The Objector submitted that actual amount is to be approved as it directly impacts the net gap / (surplus).
- 4.39 The Objector submitted that the petitioner has submitted the figures in respect of 'Revenue realised from the sale of power' when it ought to have submitted the figures in respect of 'Revenue Assessment / Billed from the sale of power' as the ARR/ True-up is determined on accrual basis and not on realised/ cash basis.
- 4.40 The Objector further submitted that the Petitioner failed to furnish the details of the revenue from the sale of power in the command area (Revenue billed/Revenue Assessed) as requested by the Objector Vide its RTI Letter dated 5/11/2016.
- 4.41 The Objector proposed that in the absence of the details of revenue accrued from the sale of power to firm consumers of Jharkhand & West Bengal, it would be apt to allocate such revenue in the ratio of sales to these states.
- 4.42 The Objector submitted that upon receiving the response filed under RTI, filed an objection statement on 18.02.2017 pointing out the discrepancy in respect of revenue claimed by the petitioner & also presented the objections in detail before the Hon'ble state Commission in the public hearing dated 6/3/2017.
- 4.43 The Objector submitted that bulk of the receivables of the Petitioner were from JBVNL and other CPSU's and most of the outstanding dues have been cleared by them under UDAY scheme of central Govt. The Objector thus requested the Hon'ble Commission allow revenue gap/ (surplus) considering revenue assessment and not revenue realised.

Petitioner's Response

- 4.44 The Petitioner submitted that the revenue from the sale of power consists of different sources including sale to firm consumers in Jharkhand, West Bengal, Bi-Lateral sale, sale through power exchange, sale through traders & UI and calls for segregation under each category and both the states in respect of firm sale after regulatory tariff.
- 4.45 The Petitioner denied the Objector's view that the revenue from the sale of power has been considered at a reduced level and stated that the earlier submission was based on the realization against bill basis while the current submission was based strictly as per accounts. The Petitioner further submitted that the realization from sales through exchange were inadvertently included in the realization from firm sale to consumers in the state of Jharkhand (2011-12 & 2012-13).
- 4.46 The Petitioner denied the Objector's submission and submitted that the Hon'ble WBERC while determining the revenue gap of DVC for the period FY 2009-10 to FY 2012-13 applicable for the consumers in West Bengal in the tariff order of DVC Dated 24/08/2015 considered the revenue realised for the respective years.
- 4.47 The Petitioner denied the Objector's view and submitted that the Petitioner earlier used to determine its tariff as per DVC Act applicable to both the states, therefore unified accounting system was in vogue. The Petitioner further submitted that some realization figures in respect of consumers from both the states are recorded vice versa.
- 4.48 The Petitioner submitted that details asked for by the Objector through RTI has been answered vide its reply dated 23/12/2016 & detailed state-wise break-up of firm sale in response to RTI application under cover of Commission's letter dated 16/11/2016 vide its reply dated 23/12/2016. The Petitioner further submitted that the Hon'ble Commission in its order dated 22/11/2016 for DVC Tariff 2012-13 has considered the revenue realized while assessing the Revenue Gap.
- 4.49 The Petitioner submitted that the point has already been clarified in his earlier submission that the difference is the result of wrong comparison of two elements not on the identical platform as the comparison has been wrongly shown between year wise amount realized from the consumers in the state of Jharkhand as submitted in the petition and the year wise amount billed to the consumers in the state of Jharkhand.

Views of the Commission

- 4.50 The Commission agrees with the view of the Objectors. As per Regulation 10, of the JSERC (Distribution Tariff) Regulations, 2004,

"10.1 No amount can be allowed to be passed on the consumer on the ground of it being bad and doubtful debt as it will lead to inefficiency in collection."

- 4.51 Moreover, the abovementioned regulations provide that working capital is required to meet the shortfall in collection over and above the target approved by the Commission. Accordingly, the Commission allows working capital to the extent of 1% of the revenue from sale of power to meet the shortfall in collection and any other inefficiency in collection on the part of the Petitioner is not passed on to the consumers.
- 4.52 Further, 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 realised basis.
- 4.53 Accordingly, the Commission rejects the claim of the Petitioner for determining ARR on revenue realised basis and has considered revenue from sale of power on revenue billed (or assessment) basis.

Retail Tariffs related issues

Public Comments/ Suggestions

- 4.54 Some of the objectors pointed out the retail tariffs in the two states viz. West Bengal and Jharkhand, where DVC supplies power, vary significantly and the tariffs in West Bengal were lower than those in Jharkhand.

Petitioner's Response

- 4.55 The Petitioner submitted that the tariffs in the two states are not the same owing to various factors such as difference in tariff structure, difference in the norms adopted by the Electricity Regulatory Commissions of the States, difference in rebates such as power factor, load factor etc. prevalent in the tariffs.

Views of the Commission

- 4.56 The Commission is undertaking Truing-up of past years in this Order. Tariff related matters have not been dealt with in this Order. The Commission may take up the issues pertaining to retails tariffs while issuing the MYT Order for the 2nd Control Period i.e. FY 2016-17 to FY 2020-21.

A5: TRUE UP FOR FY 2006-07 TO FY 2010-11

- 5.1 The Petitioner has sought approval for the True-up of ARR & revenue for FY 2006-07 to FY 2010-11 based on the actual information and the annual accounts for the aforementioned years. The Commission, based on the audited accounts and other information made available by the Petitioner and the prudence check undertaken by the representatives of the Commission, analysed all the components of revenue and expenditure for FY 2006-07 to FY 2010-11.
- 5.2 The component-wise description of the Petitioner's submission and the Commission's analysis on the same is provided herein-under.

Consumers, Connected Load & Energy Sales*Petitioner's Submission*

- 5.3 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 2006-07 to FY 2010-11 and same has been summarised in Table 5.

Commission's Analysis

- 5.4 The Commission after scrutinising the latest information submitted by the Petitioner, the annual accounts made available for the aforementioned years and prudence check, approves the actual number of consumers, connected load and energy sales as submitted by the Petitioner for FY 2006-07 to FY 2010-11.

Table 5: Consumers, Connected Load & Energy Sales in Jharkhand Area as submitted by DVC & approved by the Commission for FY 2006-07 to FY 2010-11

Financial Year	Consumers (Nos.)	Energy Sales (MU)	Connected Load/ Contract Demand (MVA)
2006-07	110	6761.63	1265.04
2007-08	120	7394.84	1313.69
2008-09	128	7740.31	1400.52
2009-10	133	8093.99	1423.21
2010-11	149	8549.47	1481.59

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

Petitioner's Submission

- 5.5 The Petitioner submitted that as it is supplying power in bulk to the WBSEDCL & JSEB and 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 actual T&D loss for FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11 are 3.7%, 3.5%, 3.0%, 4.6% & 4.8%, respectively.
- 5.6 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. The actual energy sales in West Bengal area for the aforementioned years has been submitted as 4011 MU, 4989 MU, 5160 MU, 5778 MU & 5828 MU, respectively. While the energy wheeled during the said years were 409 MU, 358 MU, 275 MU, 304 MU & 276 MU, respectively.
- 5.7 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 2006-07 to FY 2010-11 and has been summarised in Table 6.

Commission's Analysis

- 5.8 The Commission after analysing the information submitted by the Petitioner and prudence check approves the actual T&D losses, energy wheeled and energy requirement as submitted by the Petitioner and summarised in the following table:

Table 6: Energy Requirement (MU) for FY 2006-07 to FY 2010-11 as submitted by DVC & as approved by the Commission

Particulars	DVC's Submission					Commission's Analysis				
	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Total sales within the State of Jharkhand	6762	7395	7740	8094	8549	6762	7395	7740	8094	8549
Energy Sales within the state of WB	4011	4989	5160	5778	5828	4011	4989	5160	5778	5828
Total Energy Sales in DVC Area	10773	12384	12900	13872	14377	10773	12384	12900	13872	14377
Energy Wheeled	409	358	275	304	276	409	358	275	304	276
Overall Utilization	11182	12742	13175	14176	14653	11182	12742	13175	14176	14653
T&D Loss (%)	3.7%	3.5%	3.0%	4.6%	4.8%	3.7%	3.5%	3.0%	4.6%	4.8%
T&D Loss (MU)	432	459	414	676	732	432	459	414	676	732
Total Energy Requirement for DVC	11614	13201	13589	14853	15385	11614	13201	13589	14853	15385

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

5.9 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. During the period FY 2006-07 to FY 2010-11, DVC owned & operated 4 thermal stations namely, Bokaro thermal power station (BTPS), Chandrapura thermal power station (CTPS), Durgapur thermal power station (DTPS) and Mejia thermal power station (MTPS) along with 3 hydel stations namely Maithon hydel station (MHS), Panchet hydel station (PHS) and Tilayia hydel station (THS).

5.10 The actual generation available from own stations during the period FY 2006-07 to FY 2010-11 has been summarised in the following tables.

Table 7: Generation of power (MU) from own stations during FY 2006-07 as submitted by DVC

Station Name	Installed Capacity (MW)	Normative Availability (%)	Actual Availability (%)	Normative Aux. Consumption (%)	Net Generation (MU)
Thermal Stations					
MTPS U# 1 to 3	630.00	78.00	86.16	11.00	4232.03
BTPS	630.00	55.00	57.55	10.50	2842.38
CTPS	390.00	55.00	62.77	11.50	1897.86
DTPS	350.00	60.50	67.73	11.50	1837.73
MTPS U# 4	210.00	80.00	79.50	9.00	1330.93
Hydel Stations					
MHS	63.20				175.04
PHS	80.00				162.67
THS	4.00				17.98
Total	2357.20				12496.62

Table 8: Generation of power (MU) from own stations during FY 2007-08 as submitted by DVC

Station Name	Installed Capacity (MW)	Normative Availability (%)	Actual Availability (%)	Normative Aux. Consumption (%)	Net Generation (MU)
Thermal Stations					
MTPS U# 1 to 3	630.00	80.00	87.41	9.60	4360.97
BTPS	630.00	65.00	68.88	10.25	3411.57
CTPS	390.00	55.00	70.25	11.50	2123.89
DTPS	350.00	67.00	53.59	10.70	1467.25
MTPS U# 4	210.00	80.00	89.50	9.00	1498.30
MTPS U# 5 & 6	250.00*	80.00	44.28	9.00	223.00**
Hydel Stations					
MHS	63.20				203.33
PHS	80.00				208.72
THS	4.00				21.97
Total	2607.20				13519.00

* Note: Only Unit # 5 was available; ** only 20% of power is available for supply to DVC area

Table 9: Generation of power (MU) from own stations during FY 2008-09 as submitted by DVC

Station Name	Installed Capacity (MW)	Normative Availability (%)	Actual Availability (%)	Normative Aux. Consumption (%)	Net Generation (MU)
Thermal Stations					
MTPS U# 1 to 3	630.00	80.00	71.74	9.00	3603.02
BTPS	630.00	75.00	60.31	10.00	2995.68
CTPS	390.00	60.00	74.24	11.50	2244.74
DTPS	350.00	74.00	62.70	10.55	1719.63
MTPS U# 4	210.00	80.00	79.80	9.00	1335.83
MTPS U# 5 & 6	500.00	80.00	50.48	9.00	1615.79
Hydel Stations					
MHS	63.20				189.09
PHS	80.00				221.69
THS	4.00				19.53
Total	2857.20				13945.00

Table 10: Generation of power (MU) from own stations during FY 2009-10 as submitted by DVC

Station Name	Installed Capacity (MW)	Normative Availability (%)	Actual Availability (%)	Normative Aux. Consumption (%)	Net Generation (MU)
Thermal Stations					
MTPS U# 1 to 3	630.00	80.00	55.41	9.00	2782.90
BTPS	630.00	75.00	63.39	10.25	3139.83
CTPS	390.00	60.00	64.39	11.50	1946.93
DTPS	350.00	74.00	66.43	10.50	1823.00
MTPS U# 4	210.00	80.00	77.78	9.00	1302.08
MTPS U# 5 & 6	500.00	80.00	49.54	9.00	394.90
Hydel Stations					
MHS	63.20				102.38
PHS	80.00				84.50
THS	4.00				9.62
Total	2857.20				11586.14

Table 11: Generation of power (MU) from own stations during FY 2010-11 as submitted by DVC

Station Name	Installed Capacity (MW)	Normative Availability (%)	Actual Availability (%)	Normative Aux. Consumption (%)	Net Generation (MU)
Thermal Stations					
MTPS U# 1 to 3	630.00	80.00	74.50	9.00	3741.57
BTPS	630.00	75.00	61.37	10.25	3039.88
CTPS	390.00	60.00	77.15	11.50	2332.73
DTPS	350.00	74.00	48.75	10.50	1337.60
MTPS U# 4	210.00	80.00	75.73	9.00	1267.66

Station Name	Installed Capacity (MW)	Normative Availability (%)	Actual Availability (%)	Normative Aux. Consumption (%)	Net Generation (MU)
MTPS U# 5 & 6	500.00	80.00	70.27	9.00	560.16
Hydel Stations					
MHS	63.20				59.47
PHS	80.00				54.27
THS	4.00				0.46
Total	2857.20				12393.80

Commission's Analysis

- 5.11 DVC being a statutory body constituted under the DVC Act, 1948 is a PSU as envisaged under Section 79 (1) (a) of the Electricity Act, 2003. Thus, the tariff for generation of electricity is to be decided by the Central Electricity Regulatory Commission (CERC).
- 5.12 The actual generation from own sources for FY 2006-07 to FY 2008-09 and FY 2009-10 to FY 2010-11 is in accordance with the CERC Orders dated August 6, 2009 & June 23, 2011, respectively and same has been adopted by the Commission and is summarised in the following table:

Table 12: Energy available (MU) from own stations during FY 2006-07 to FY 2010-11 as submitted by DVC & as adopted by the Commission based on the relevant CERC orders

Particulars	DVC's Submission					Commission's Analysis				
	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Thermal Stations	12141	13085	13515	11390	12280	12141	13085	13515	11390	12280
Hydel Stations	356	434	430	197	114	356	434	430	197	114
Total Generation from own sources	12497	13519	13945	11586	12394	12497	13519	13945	11586	12394

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

Petitioner's Submission

- 5.13 The Petitioner submitted that it is also purchasing power from CSGS and other sources to meet the energy requirements in the DVC area. During FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11, the Petitioner made gross power purchase of 717 MU, 617 MU, 717 MU, 752 MU & 754 MU, respectively from NTPC, NHPC, PTC & other sources (excluding net power purchased under Unscheduled Interchange mechanism). The net power purchase for the aforementioned years, after considering the eastern region losses @ 2.5%, was 693 MU, 594 MU, 689 MU, 729 MU & 734 MU, respectively.

- 5.14 Further, during the period FY 2006-07 to FY 2010-11, the Petitioner also purchased & sold power through the Unscheduled Interchange (UI) mechanism. The net power purchased by DVC through UI (i.e. power purchased less power sold under UI mechanism) during FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11 was -833 MU, -456 MU, -324 MU, 1625 MU & 1782 MU, respectively.
- 5.15 Accordingly, the net power purchase from CSGS & other sources (including UI) during the aforementioned period works out to be 693 MU, 594 MU, 689 MU, 2354 MU & 2516 MU, respectively and same has been considered for estimating the energy availability.

Commission's Analysis

- 5.16 The Commission after scrutinising the information submitted by the Petitioner and after validating the same with the audited annual accounts for FY 2006-07 to FY 2010-11, approves the actual power purchased from CSGS and other sources (including UI) for FY 2006-07 to FY 2010-11 as submitted by the Petitioner.
- 5.17 The following table summarises the station-wise net power purchase as submitted by the Petitioner and as approved by the Commission for the period FY 2006-07 to FY 2010-11.

Table 13: Station-wise Power Purchase (MU) for FY 2006-07 to FY 2010-11 as submitted by Petitioner & as approved by the Commission

Name of Station	DVC's Submission					Commission's Analysis				
	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
NTPC										
TSTPS	24	22	21	21	21	24	22	21	21	21
FSTPS	274	86	0	0	0	274	86	0	0	0
KSTPS	6	0	0	0	0	6	0	0	0	0
Muzaffarpur	0	0	0	0	0	0	0	0	0	0
NHPC										
Rangeet	19	31	32	31	33	19	31	32	31	33
Teesta	0	5	154	216	218	0	5	154	216	218
WBSIEDCL	0	0	0	9	0	0	0	0	9	0
PTC										
Chukha	186	182	186	184	185	186	182	186	184	185
Kurichu	141	97	93	89	84	141	97	93	89	84
Tala	44	171	203	179	193	44	171	203	179	193
Sub-Total	693	594	689	729	734	693	594	689	729	734
Net power purchase through UI	(833)	(456)	(324)	1625	1782	(833)	(456)	(324)	1625	1782
Total Power Purchase	(140)	138	365	2354	2516	(140)	138	365	2354	2516

Energy Balance

- 5.18 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 2006-07 to FY 2010-11 as submitted by the Petitioner and as per Commission's analysis has been summarised in the following table.

Table 14: Energy Balance (MU) for FY 2006-07 to FY 2010-11 as per Petitioner's Submission & the Commission's Analysis

Name of Station	DVC's Submission					Commission's Analysis				
	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
A. Energy Requirement										
Energy sales within the State of Jharkhand	6762	7395	7740	8094	8549	6762	7395	7740	8094	8549
Energy Sales within the state of WB	4011	4989	5160	5778	5828	4011	4989	5160	5778	5828
Total Energy Sales in DVC Area	10773	12384	12900	13872	14377	10773	12384	12900	13872	14377
Energy Wheeled	409	358	275	304	276	409	358	275	304	276
Overall Utilization	11182	12742	13175	14176	14653	11182	12742	13175	14176	14653
T&D Loss (%)	3.7%	3.5%	3.0%	4.6%	4.8%	3.7%	3.5%	3.0%	4.6%	4.8%
T&D Loss (MU)	432	459	414	676	732	432	459	414	676	732
Total Energy Requirement for DVC	11614	13201	13589	14853	15385	11614	13201	13589	14853	15385
B. Energy Availability										
Own generation – Firm sources										
Thermal	12141	13085	13515	11390	12280	12141	13085	13515	11390	12280
Hydel	356	434	430	197	114	356	434	430	197	114
Sub-total	12497	13519	13945	11586	12394	12497	13519	13945	11586	12394
Own Generation – Infirm sources	0	0	0	1717	2512	0	0	0	1717	2512
Net Power Purchase (incl. UD)	(140)	138	365	2354	2516	(140)	138	365	2354	2516
Energy recd. For wheeling	450	416	322	350	284	450	416	322	350	284
Less: Energy sold to other licensees	1193	872	1043	1154	2320	1193	872	1043	1154	2320
Total Energy Available for DVC	11614	13201	13589	14853	15385	11614	13201	13589	14853	15385

Cost of own generation (input cost from CERC Orders) for DVC*Petitioner's Submission*

- 5.19 As mentioned in para 5.11 above, DVC constituted under the DVC Act, 1948, is a 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 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.
- 5.20 For the period FY 2006-07 to FY 2008-09, the cost of power generated from owned thermal stations and own hydel stations has been considered on the basis of the CERC Orders dated 06.08.2009, 20.11.2012, 18.2.2014, 08.05.2013, 10.05.2016, 14.07.2016.
- 5.21 For the period FY 2009-10 & FY 2010-11, the Petitioner has considered the cost of own generation from thermal stations (except MTPS Unit # 5 & 6) and own hydel stations in accordance with the CERC's True-up Orders for the relevant stations dated 29.07.2016. For MTPS Unit # 5 & 6, the cost of power generation has been considered in accordance with the CERC's True-up Order dated 09.02.2017. Since the True-up Order of DVC's Transmission and Distribution system is pending, the Order dated 27.9.2013 for determination of Tariff for the period 2014-19 has been considered. 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

- 5.22 The Commission observes that the CERC has issued final True-up Orders for the following stations:

Table 15: Data of Issue of Final True-up/ Tariff Order

Station	Date of Tariff Order for 2009-14	Date of True-up Order for 2009-14
BTPS 'B'	-	29.07.2016
CTPS U# 1,2,3	-	29.07.2016
DTPS U # 3,4	-	29.07.2016
MTPS U#1 to 3	-	29.07.2016
MTPS U#4	-	29.07.2016
MHS	-	29.07.2016
PHS	-	29.07.2016
THS	-	29.07.2016
T&D System	27.09.2013	Not issued
MTPS U# 5 & 6	-	09.02.2017
MTPS U# 7 & 8	-	29.07.2016
CTPS U# 7 & 8	-	29.07.2016
DSTPS U # 1 & 2	-	27.02.2017
KTPS U # 1	-	22.08.2016
KTPS U # 2	-	-

- 5.23 The Commission after scrutinising the information made available by the Petitioner and perusal of the above mentioned CERC Orders, has adopted the cost of own power generation from thermal & hydel stations for DVC for the period FY 2006-07 to FY 2010-11 as approved by CERC in its relevant Tariff Orders.
- 5.24 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 2006-07 to FY 2010-11.
- 5.25 It is to be noted that the fixed charges as determined by the CERC for generation assets of the Petitioner for FY 07 to FY 09, consist of charges related to depreciation, interest on loan, return on equity, interest on working capital for generation and transmission assets, O&M expenses & other offices & subsidiary activities. For FY 10 and FY 11, besides these components, the fixed charges determined by the CERC also include the cost of contribution towards pension and gratuity fund as well as contribution to sinking fund of DVC.
- 5.26 The station-wise 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 2006-07 to FY 2008-09 has been summarised in the following table:

Table 16: Station-wise cost of own power generation (Rs Cr) for FY 2006-07 to FY 2008-09 as submitted by Petitioner & as adopted by the Commission based on the relevant CERC orders

Particulars	Petitioner's Submission			Commission's Analysis		
	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2006- 07	FY 2007-08	FY 2008-09
A. Thermal Stations						
MTPS U# 1 to 3	802.11	756.81	710.43	802.11	756.81	710.43
BTPS	596.49	628.42	547.63	596.49	628.42	547.63
CTPS	377.66	430.37	484.63	377.66	430.37	484.63
DTPS	405.60	299.37	418.53	405.60	299.37	418.53
MTPS U#4	304.30	312.36	320.99	304.30	312.36	320.99
MTPS U# 5 & 6	0.00	4.26	84.19	0.00	4.26	84.19
MTPS U# 7 & 8	0.00	0.00	0.00	0.00	0.00	0.00
CTPS U# 7 & 8	0.00	0.00	0.00	0.00	0.00	0.00
KTPS U# 1 & 2	0.00	0.00	0.00	0.00	0.00	0.00
DSTPS U# 1 & 2	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total (Thermal)	2486.17	2431.58	2566.14	2486.17	2431.58	2566.14
B. Hydel Stations						
Maithon	19.59	19.81	20.14	19.59	19.81	20.14
Panchet	13.92	11.63	11.89	13.92	11.63	11.89
Tilayia	3.48	3.60	3.74	3.48	3.60	3.74

Particulars	Petitioner's Submission			Commission's Analysis		
	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2006- 07	FY 2007-08	FY 2008-09
Sub-Total (Hydel)	36.99	35.04	35.77	36.99	35.04	35.77
Total Own Generation cost for DVC	2523.16	2466.62	2601.92	2523.16	2466.62	2601.92

5.27 As per the CERC Tariff Regulations, 2014-19, the recovery of fixed cost is linked to the actual availability of the generating stations. The Petitioner has claimed that the contribution towards P&G and Sinking Fund is not linked with Plant Availability Factor and thus, project wise contribution towards Pension & Gratuity Fund and Sinking Fund ought to be allowed in totality, as determined by the CERC.

5.28 The Petitioner had made this claim also in its last MYT Petition for the Control Period FY 2013-14 to FY 2015-16. The Commission, in its MYT Order dated 04.09.2014 for the Control Period FY 2013-14 to FY 2015-16, had observed as under:

“The Commission views that the contribution to Pension and Gratuity and Sinking fund has already been considered by CERC in the Annual Fixed Charges of the DVC's generating stations. Further, as per Section 21 of the CERC Regulations, the fixed costs of the generating stations shall be computed on annual basis based on actual plant availability factor as well as the normative plant availability factor. Hence, the claim of the Petitioner finds no merit...”

5.29 The Hon'ble APTEL, in its Judgement dated 23.03.2016 (Appeal No. 255 of 2014), has upheld the above-said Order of the Commission and has rejected the contention of the Petitioner. Therefore, the Commission has computed the fixed charges for FY 2009-10 and FY 2010-11, including the contribution towards Pension & Gratuity Fund and Sinking Fund, linked to plant availability, as per the applicable CERC formula.

5.30 The station-wise cost of own power generating stations as submitted by the Petitioner and as adopted by the Commission from the relevant CERC Orders for the period FY 2009-10 to FY 2010-11 has been summarised in the following tables:

Table 17: Fixed Cost for FY 2009-10 as submitted by the Petitioner

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY) 2009-10	Annual Fixed Charge (AFC) without P & G and sinking fund (in Rs. Lakh)	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Fixed charge as per share allocation	Contribution to P & G and to Sinking Fund allowed as per CERC orders (in Rs. Lakh)	Total fixed cost applicable for the distribution activity (in Rs. Lakh)
BTPS	75%	63.39%	32578.34	27535.70	100.00%	27535.70	3660.86	31196.56
CTPS	60%	64.39%	20351.33	21841.37	100.00%	21841.37	1682.6	23523.97
DTPS	74%	66.44%	19812.28	17787.04	100.00%	17787.04	1217.04	19004.08
MTPS (1-3)	82%	55.41%	38328.99	25901.42	100.00%	25901.42	10040.32	35941.74

DVC Order on True-up for FY 2006-07 to FY 2013-14 and APR for FY 2014-15

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY) 2009-10	Annual Fixed Charge (AFC) without P & G and sinking fund (in Rs. Lakh)	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Fixed charge as per share allocation	Contribution to P & G and to Sinking Fund allowed as per CERC orders (in Rs. Lakh)	Total fixed cost applicable for the distribution activity (in Rs. Lakh)
MTPS # 4	82%	77.78%	17648.05	17194.03	100.00%	17194.03	3851	21045.03
MTPS U# 5 & 6	85%	49.54%	53419.87	34468.87	41.55%	14323.37	3423.52	17746.90
MHS	80%	80.00%	2625.79	2625.79	100.00%	2625.79	367.69	2993.48
PHS	80%	80.00%	1925.60	1925.60	100.00%	1925.60	313.66	2239.26
THS	80%	80.00%	662.64	662.64	100.00%	662.64	16.49	679.13
T&D	98%	98.00%	30089.98	30089.98	100.00%	30089.98	5541.69	35631.67
Total			217442.87	180032.44		159886.94	30114.87	190001.82

Table 18: Fixed Cost for FY 2010-11 as submitted by the Petitioner

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY) 2010-11	Annual Fixed Charge (AFC) without P & G and sinking fund (in Rs. Lakh)	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Fixed charge as per share allocation	Contribution to P & G and to Sinking Fund allowed as per CERC orders (in Rs. Lakh)	Total fixed cost applicable for the distribution activity (in Rs. Lakh)
BTPS	75%	61.37%	32269.51	26406.18	100.00%	26406.18	3616.54	30022.72
CTPS	60%	77.15%	20945.05	26932.75	100.00%	26932.75	1662.23	28594.98
DTPS	74%	48.75%	20199.71	13305.91	100.00%	13305.91	1202.36	14508.27
MTPS (1-3)	82%	74.50%	37733.82	34283.28	100.00%	34283.28	9918.92	44202.20
MTPS # 4	82%	75.72%	16914.01	16266.82	100.00%	16266.82	3796.26	20063.08
MTPS U# 5 & 6	85%	70.27%	51661.78	47185.12	17.17%	8099.77	1414.24	9514.00
MHS	80%	80.00%	2642.86	2642.86	100.00%	2642.86	363.23	3006.09
PHS	80%	80.00%	1860.89	1860.89	100.00%	1860.89	309.86	2170.75
THS	80%	80.00%	694.63	694.63	100.00%	694.63	16.29	710.92
T&D	98%	98.00%	34391.27	34391.27	100.00%	34391.27	5474.46	39865.73
Total			219313.53	203969.72		164884.36	27774.39	192658.75

Table 19: Fixed Cost for FY 2009-10 as approved by the Commission

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY) 2009-10	Total Annual Fixed Charge (AFC) as per latest CERC Orders (in Rs. Lakh)	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Fixed charge as per share allocation	Total fixed cost applicable for the distribution activity (in Rs. Lakh)
BTPS	75%	63.39%	36239.20	30629.91	100.00%	30629.91	30629.91
CTPS	60%	64.39%	22033.93	23647.16	100.00%	23647.16	23647.16

DVC Order on True-up for FY 2006-07 to FY 2013-14 and APR for FY 2014-15

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY) 2009-10	Total Annual Fixed Charge (AFC) as per latest CERC Orders (in Rs. Lakh)	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Fixed charge as per share allocation	Total fixed cost applicable for the distribution activity (in Rs. Lakh)
DTPS	74%	66.44%	21029.32	18879.68	100.00%	18879.68	18879.68
MTPS (1-3)	82%	55.41%	48369.31	32686.32	100.00%	32686.32	32686.32
MTPS # 4	82%	77.78%	21499.05	20945.96	100.00%	20945.96	20945.96
MTPS U# 5 & 6	85%	49.54%	61658.50	39784.80	41.55%	16532.38	16532.38
MHS	80%	80.00%	2993.48	2993.48	100.00%	2993.48	2993.48
PHS	80%	80.00%	2239.26	2239.26	100.00%	2239.26	2239.26
THS	80%	80.00%	679.13	679.13	100.00%	679.13	679.13
T&D	98%	98.00%	35631.67	35631.67	100.00%	35631.67	35631.67
Total			252372.85	208117.37		184864.95	184864.95

Table 20: Fixed Cost for FY 2010-11 as approved by the Commission

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY) 2010-11	Total Annual Fixed Charge (AFC) as per latest CERC Orders (in Rs. Lakh)	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Fixed charge as per share allocation	Total fixed cost applicable for the distribution activity (in Rs. Lakh)
BTPS	75%	61.37%	35886.05	29365.60	100.00%	29365.60	29365.60
CTPS	60%	77.15%	22607.28	29070.18	100.00%	29070.18	29070.18
DTPS	74%	48.75%	21402.07	14097.92	100.00%	14097.92	14097.92
MTPS (1-3)	82%	74.50%	47652.74	43295.18	100.00%	43295.18	43295.18
MTPS # 4	82%	75.72%	20710.27	19917.82	100.00%	19917.82	19917.82
MTPS U# 5 & 6	85%	70.27%	59900.41	54709.85	17.17%	9391.46	9391.46
MHS	80%	80.00%	3006.09	3006.09	100.00%	3006.09	3006.09
PHS	80%	80.00%	2170.75	2170.75	100.00%	2170.75	2170.75
THS	80%	80.00%	710.92	710.92	100.00%	710.92	710.92
T&D	98%	98.00%	39865.73	39865.73	100.00%	39865.73	39865.73
Total			253912.31	236210.04		190891.64	190891.64

Table 21: Energy Charges for FY 2009-10 and FY 2010-11 as approved by the Commission

STATION	Ex-Bus Generation (MU)		Energy Charge Rate (p/unit)		Total Energy Charges (Rs Lakhs)	
	2009-10	2010-11	2009-10	2010-11	2009-10	2010-11
BTPS	3139.84	3039.86	127.75	148.90	40112.71	45263.82
CTPS	1946.93	2332.72	137.48	155.29	26767.17	36225.74
DTPS	1823.04	1337.60	190.11	231.85	34658.18	31011.72
MTPS U#1 TO U#3	2782.89	3741.55	170.12	191.13	47342.25	71511.87
MTPS U#4	1302.08	1267.66	170.02	190.57	22137.57	24157.29

STATION	Ex-Bus Generation (MU)		Energy Charge Rate (p/unit)		Total Energy Charges (Rs Lakhs)	
	2009-10	2010-11	2009-10	2010-11	2009-10	2010-11
MTPS U#5 & 6	1974.49	2800.78	183.39	203.84	15047.29	9800.22
PHS	84.50	54.27	-	-	0.00	0.00
MHS	102.38	59.47	-	-	0.00	0.00
THS	9.62	0.46	-	-	0.00	0.00
CTPS U# 7&8 infirm	137.25	189.54	348.67	348.67	4785.48	6608.67
MTPS U# 7&8 infirm	0.00	81.65	-	236.02	0.00	1927.07
TOTAL	13303.02	14905.56			190850.66	226506.40

Power purchase cost for DVC (Other than own generation cost)

Petitioner's Submission

- 5.31 The Petitioner submitted the actual power purchase cost from CSGS & other sources (excluding UI) during FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11, was Rs.141 Cr, Rs.122 Cr, Rs.142 Cr, Rs.156 Cr & Rs.171 Cr, respectively. The Petitioner also submitted cost of power purchased under UI mechanism during FY 2009-10 and FY 2010-11 to be Rs. 598 Cr and Rs.429 Cr, respectively.

Commission's Analysis

- 5.32 The Commission analysed the actual power purchase bills from the CSGS for the period FY 2006-07 to FY 2010-11, and accordingly approves the power purchase cost from CSGS & other sources (excluding UI) as submitted by the Petitioner.
- 5.33 On further scrutiny of the information submitted by the Petitioner, the Commission noted that for the FY 2006-07 to FY 2008-09, the Petitioner has earned revenue from sale of power through UI but has not netted off this revenue from the gross power purchase cost. The revenue from sale of power under UI for the aforementioned years was Rs.106 Cr, Rs. 37 Cr and Rs. 60 Cr, respectively. The revenue from UI was then netted off from the gross power purchase from CSGS and other sources to arrive at net power purchase cost (including UI) for FY 2006-07 to FY 2008-09. In case of FY 2009-10 & FY 2010-11, the Commission approved the gross power purchase from UI sources as submitted by the Petitioner.
- 5.34 Thus, after considering the impact of power sold through UI, the net power purchase cost (including UI but other than own generation cost) approved for FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11 works out to be Rs. 35 Cr, Rs.85 Cr, Rs. 82 Cr, Rs. 752 Cr, & Rs.598 Cr, respectively. The following table summarises source-wise power purchase cost (other than own generation cost) for the period FY 2006-07 to FY 2010-11 as submitted by the Petitioner and as approved by the Commission:

Table 22: Source-wise power purchase cost (Rs Cr) for FY 2006-07 to FY 2010-11 as submitted by Petitioner & as approved by the Commission

Name of Station	DVC's Submission					Commission's Analysis				
	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Power Purchase cost (excluding UI)										
NTPC –TSTPS	3.74	3.52	5.04	4.06	6.19	3.74	3.52	5.04	3.97	6.19
NTPC - FSTPS	55.57	18.29	0.00	0.00	0.00	55.57	18.29	0.00	0.00	0.00
NTPC – KSTPS	1.34	0.00	0.00	0.00	0.00	1.34	0.00	0.00	0.00	0.00
NTPC - Muzaffarpur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NHPC - Rangeet	5.80	6.51	6.42	6.74	8.36	5.80	6.51	6.42	6.74	8.36
NHPC – Teesta	0.00	0.92	31.13	49.54	56.88	0.00	0.92	31.13	49.54	56.88
WBSedCL	0.00	0.00	0.00	2.77	0.00	0.00	0.00	0.00	2.77	0.00
PTC – Chukha	34.94	34.25	34.79	34.66	37.22	34.94	34.25	34.79	34.66	37.22
PTC – Kurichu	30.28	20.91	20.23	19.12	18.98	30.28	20.91	20.23	19.12	18.98
PTC – Tala	9.65	37.45	44.04	38.23	43.63	9.65	37.45	44.04	38.23	43.63
Gross power purchase excluding UI (Rs Cr)	141.33	121.84	141.66	155.56	171.26	141.33	121.84	141.66	155.56	171.26
Power purchased units excluding UI (MU)	693	594	689	729	734	693	594	689	729	734
Rate of power purchase excluding UI (Rs./kWh)	2.04	2.05	2.05	2.14	2.33	2.04	2.05	2.05	2.14	2.33
Net power purchase cost from UI (Rs Cr)	-	-	-	597.55	428.78	(105.91)	(36.92)	(59.56)	597.55	428.78
Total Power Purchase cost (Rs Cr)	141.33	121.84	141.66	753.11	600.04	35.42	84.92	82.10	753.11	600.04

Other Fixed cost components**Input cost (other than power generation cost) for DVC***Petitioner's Submission*

- 5.35 The Petitioner submitted that other than the energy & capacity charges for own generation, the cost of transmission & distribution of electricity generated from own stations, the contribution made to pension fund & provisions towards sinking fund also constitute the input cost and are in accordance with the relevant CERC Orders.
- 5.36 Accordingly for FY 2006-07, FY 2007-08 & FY 2008-09, the Petitioner submitted the input cost other than cost of power generation to be Rs.888.76 Cr, Rs.887.91 Cr & Rs.930.29 Cr, respectively. In case of FY 2009-10 & FY 2010-11, the Petitioner has not submitted any cost pertaining to these charges separately as same has been included in the cost of own generation as approved by CERC in its Orders for the period FY 09 to 14.

Commission's Analysis

- 5.37 The Commission has approved the cost of Transmission and Distribution of electricity generated from own stations based on the cost approved by the CERC in its Orders dated 08.05.2013 and 10.05.2016. Accordingly, the Commission approves cost of Rs 164.32 Cr, Rs 173.19 Cr and Rs 173.73 Cr for FY 07, FY 08 and FY 09 respectively. In case of FY 10 & FY 11, the cost pertaining to these charges have already been included in the cost of own generation as approved by CERC in its Orders for the period FY 09 to 14.
- 5.38 The cost towards provision of sinking fund has been approved as Rs 40.43 Cr, Rs 30.72 Cr and Rs. 27.55 Cr for FY 07, FY 09 and FY 09 respectively based on the relevant Orders of CERC.
- 5.39 With respect to the contribution towards Pension and Gratuity (P&G) Fund, the Commission had directed the Petitioner to submit detailed computation of the contribution to P&G fund, as claimed by the Petitioner in the Petition. In its reply, the Petitioner submitted that the claim of the Petitioner has been computed as per the following table:

Table 23: Computation of P&G liability as submitted by the Petitioner

YEAR	ORDER DTD. 29.07.2016 IN PETN. NO. 469/GT/2014 FOR BTPS 'B' TRUE-UP	ORDER DTD. 29.07.2016 IN PETN. NO. 466/GT/2014 FOR MTPS U#4 TRUE-UP	TOTAL ALLOWED DURING 2009-14 (40% OF THE TOTAL CLAIM)	TOTAL ALLOWED	P&G for distributi on activity as per Order 6.8.09	TOTAL ALLOWE D FOR DISTRIBU TION	CONTRIBUTION TO P&G CLAIMED DURING 2006-09 PERIOD BEFORE SERCs		O&M ARREARS DUE TO PAY REVISION (Para No 132 -136 of Order 8.5.13)	TOTAL CLAIM
	A	B	C = A + B	D = C/0.4	E	F = D + E	YEAR	G = (F - C) /3	H	I = G + H
2009-10	228.5546	22.2292	250.7838	626.96	6.14		2006-07	629.01	55	684.01
2010-11	228.5546	22.2292	250.7838	626.96			2007-08	629.01	55	684.01
2011-12	228.5546	22.2292	250.7838	626.96			2008-09	629.01	100	729.01
2012-13	228.5546	22.2292	250.7838	626.96			----	----	----	----
2013-14	228.5546	22.2292	250.7838	626.96			----	----	----	----
	1142.77	111.15	1253.92	3134.80	6.14	3140.94	TOTAL	1887.02	210.00	2097.02

- 5.40 The Commission observes that the Petitioner, in the Petition, has claimed contribution to P&G fund of Rs 684.31 Cr for FY 2006-07 and FY 2007-08 and Rs 729.31 Cr for FY 2008-09. However, the detailed computation, as submitted by the Petitioner, indicate claim of Rs 684.01 Cr for FY 2006-07 and FY 2007-08 and Rs 729.01 Cr for FY 2008-09.

- 5.41 The Commission also observes that the Petitioner has claimed O&M arrears due to pay revision (Column H of the above Table) as part of contribution to P&G fund when it ought to have claimed it separately as such expenses do not form part of the P&G fund liability. During the course of discussions with the Petitioner, the Petitioner accepted the fact that it has erroneously claimed such O&M arrears as part of P&G fund. **This is inspite of the reservations expressed by various Objectors during the course of the public consultation process that the Petitioner has claimed contribution to P&G fund in excess of that approved by the CERC and the Petitioner, in its reply to the Objectors, has categorically denied that it has deviated from the CERC's approved P&G liability figures. The Commission expresses strong objection to the fact that the Petitioner has failed to address the concerns of the Objectors and has not furnished a clear picture in support of its claim of O&M arrears also as part of the P&G fund liability.**
- 5.42 The Petitioner also submitted that such O&M arrears, which form part of the Annual Fixed Charges (AFC) of the generating stations approved by the CERC, even though they have been recognised by the CERC in its Order dated 08.05.2013, have been inadvertently not included in the final approved AFC in the same Order. Hence, the Petitioner has approached the State Commission to consider the same in the AFC of the DVC's generating stations.
- 5.43 It is pertinent to note that the fixed charges as determined by the CERC, for generation assets of the Petitioner, consist of charges related to depreciation, interest on loan, return on equity, interest on working capital for generation and transmission assets, including O&M expenses. The Commission considers the cost of own generation, of the Petitioner's generating stations, as approved by the CERC in the relevant Tariff Orders, as input cost while determination the ARR for the distribution function. The Commission has no jurisdiction to re-determine the AFC of the DVC's inter-state generating stations. The Petitioner ought to approach the CERC for inclusion of such O&M arrears due to impact of pay revision. Accordingly, the Commission has not considered O&M arrears, as claimed by the Petitioner and has considered the cost of own generation as well as contribution to P&G fund strictly as per the relevant CERC Orders.
- 5.44 The CERC, in its Order dated 03.10.06 had approved a cost of Rs. 920.69 Cr towards contribution to P&G fund, for the period FY 07 to 09 (i.e. Rs 306.90 Cr for each year) for DVC's generating stations except for MTPS Unit-4. CERC, vide its Order dated 06.08.09, approved a cost of Rs. 89.72 Cr for the period FY 07 to 09 (i.e. Rs 29.90 Cr for each year) for MTPS Unit-4 station.
- 5.45 CERC, vide its Order dated 22.4.13, further allowed DVC to recover the cost due to increase in actual liability on account of pay revision, with 60% recovery during the period FY 07 to FY 09 while the balance 40% to be recovered during the period FY 10 to FY 14. Extra liability due to the impact of pay revision works and to be recovered during FY 07 to 09 works out to Rs 874.16 Cr (i.e. Rs 291.39 Cr for each year) as summarised below:

Table 24: Extra P&G liability due to impact of pay revision

S. No.	Particulars	Rs Lakhs
1.	Total Liability after pay revision as on 31.3.09, as recognised by CERC, in its Order dated 9.7.2013 (Page 22) in case of Petition No 274/GT/2012	3140.94
2.	Liability admitted by the Commission to be claimed during FY 07-09 (60%) [920.69 + 89.72] as stated above	1010.41
3.	Liability admitted by the Commission to be claimed during FY 09 -14 (40%) [613.80 + 59.81]	673.60
4.	Total admitted liability (2+3)	1684.01
5.	Unadmitted Liability on account of pay-revision (1-5)	1456.93
6.	Liability on account of pay revision to be claimed during FY 07-09 (60% of S.No. 6)	874.16
7.	Liability on account of pay revision for each year of the period FY 07 to 09	291.39

5.46 Further, the CERC, has not allowed DVC to recover cost of contribution made to pension fund of Rs 6.14 Cr as the same cost has been attributed to the Distribution system and has not been considered in the costs allowable for DVC's generation systems. The Commission finds it prudent to allow recovery of such cost of Rs 6.14 Cr, with 60% recovery in FY 07 to 09 and the balance to be recovered in FY 10-14, in line with the methodology adopted by the CERC.

5.47 The following table summarises the input cost (other than own generation cost) as submitted by the Petitioner and as adopted by the Commission.

Table 25: Input cost (other than power generation cost) (Rs Cr) for FY 2006-07 to FY 2010-11 as submitted by Petitioner and as adopted by the Commission from relevant Orders of CERC

Particulars	DVC's Submission					Commission's Analysis				
	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
T&D Cost	164.32	173.19	173.73	Included in Own generation cost		164.32	173.19	173.73	Included in Own generation cost	
Pension as allowed by CERC (for Generation)	684.01	684.01	729.01			628.19	628.19	628.19		
Sinking fund contribution as allowed by CERC	40.43	30.72	27.55			40.43	30.72	27.55		
Pension for distribution business not allowed by CERC	_*	_*	_*	-	-	1.23	1.23	1.23	0.49	0.49
Total Input cost of own generation (other than cost of power generation)	888.76	887.91	930.29	-	-	832.94	832.09	829.47	0.49	0.49

*DVC has claimed this cost as part of the Pension cost allowed by CERC

Water and Pollution Cess

Petitioner's Submission

- 5.48 The Petitioner has claimed water cess of Rs. 2.79 Cr. and Rs 2.75 Cr for FY 2009-10 and FY 2010-11 respectively.

Commission's Analysis

- 5.49 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 (NTI)

Petitioner's Submission

- 5.50 The Petitioner submitted non-tariff income pertaining to revenue collected through delayed payment surcharge for DVC as a whole, for FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11 as Rs.7.65 Cr, Rs.12.22 Cr, Rs.24.26 Cr, Rs.1.89 Cr & Rs.7.63 Cr, respectively.

Commission's Analysis

- 5.51 The Commission observed that the Petitioner has claimed non-tariff income only to the extent of the Delayed Payment Surcharge (DPS). Further, the NTI, as reflected in the audited annual accounts, was in excess of the non-tariff income as claimed by the Petitioner. The Commission also notes that DVC, being a vertically integrated organisation, also carries out the business of generation and transmission of electricity besides distribution. Accordingly, the Commission directed the Petitioner to submit information on non-tariff income, as per audited accounts, segregated into generation, transmission and distribution business.
- 5.52 The Petitioner, in its reply, submitted that apart from DPS, there is no other NTI attributable to the distribution business. The reply of the Petitioner is stated below:

“...DVC is a vertically integrated organization and has got generation, transmission and distribution activity in the entire Damodar Valley Area spread over in the state of Jharkhand and West Bengal. Therefore, DVC maintains its accounts which is integrated and covers all the aforesaid activities and also some other activities as mandated in DVC Act 1948. The accounting procedure followed by DVC is also approved and audited by Comptroller & Auditor General of India.

It is, however, confirmed that other than Delay Payment Surcharge (DPS), there is no other Non-Tariff Income (NTI) under the distribution business of DVC and year-wise amount of DPS, as NTI has already been furnished to the Hon'ble Commission....”

- 5.53 The Commission has taken note of the fact that entire capital expenditure of the Petitioner is attributable to the generation and transmission business as the Petitioner does not claim any capital expenditure for the distribution business. Accordingly, the non-tariff income, other than the Delayed Payment Surcharge, may be attributable to the generation and transmission business.
- 5.54 However, the Commission also notes that non-tariff income attributable to the generation and transmission business ultimately impacts the end-use consumer as the costs (net of any revenue) for generation and transmission business become the input costs for distribution business which drive the retail tariffs applicable for the end-consumer. Hence, the Commission directs the Petitioner to submit, within one month of notification of this Order, whether such non-tariff income has been accounted for in costs for the generation and transmission business of the Petitioner. Based on the justification provided by the Petitioner, the Commission may take an appropriate view on the same and pass suitable Orders to the effect.
- 5.55 Accordingly, at the moment, the Commission approves the non-tariff income pertaining to delayed payment surcharge as Rs.7.65 Cr, Rs.12.22 Cr, Rs.24.26 Cr, Rs.1.89 Cr & Rs.7.63 Cr, respectively for the aforementioned years based on actuals.

Tariff Filing and Publication Expenses of CERC as well as JSERC

Petitioner's Submission

- 5.56 The Petitioner has submitted that tariff filing and publication expenses for DVC pertaining to the Jharkhand area are Rs.0.11 Cr for each year from FY 2006-07 to FY 2010-11. Besides, Petitioner has also claimed tariff filing and publication expense of CERC for each year from FY 2006-07 to FY 2010-11.

Commission's Analysis

- 5.57 The Commission scrutinised 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 summarised in following table:

Table 26: Tariff Filing and Publication Expenses (Rs. Cr.) for FY 2006-07 to FY 2010-11 as submitted by Petitioner and as approved by the Commission

Sl. No.	Particulars	DVC's Submission					Commission's Analysis				
		FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
	Tariff Filing and Publication expense for JSERC	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11	0.11
	Tariff Filing and Publication expense for CERC	0.25	0.25	0.33	1.12	1.17	0.25	0.25	0.33	1.12	1.17

Allocation of Costs for DVC as a whole to Jharkhand Area

Petitioner's Submission

- 5.58 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

- 5.59 The Commission, while undertaking provisional True-up for FY 07 to FY 11 during November 2012, had directed the petitioner to submit the details of segregated cost of supply for Jharkhand and West Bengal area. However, the Petitioner had 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.
- 5.60 The following table summarises the input cost allocated to the Jharkhand area for the period FY 2006-07 to FY 2010-11 as submitted by the Petitioner and as approved by the Commission:

Table 27: Input Cost (Rs. Cr.) allocated for Jharkhand Area for FY 2006-07 to FY 2010-11 as per Petitioner's submission and as per Commission's analysis

Particulars	DVC's submission					Commission's Analysis				
	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Own generation cost	2,523.16	2,466.62	2,601.92	3,808.52	4,191.65	2,523.16	2,466.62	2,601.92	3,808.52	4,191.65
Power Purchase Cost	35.42	84.92	82.10	753.11	600.04	35.42	84.92	82.10	753.11	600.04

Particulars	DVC's submission					Commission's Analysis				
	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
T&D Cost	164.32	173.19	173.73	Incl. in own generation cost.		164.32	173.19	173.73	Incl. in own generation cost.	
Pension as allowed by CERC	684.01	684.01	729.01			628.19	628.19	628.19		
Sinking fund contribution as allowed by CERC	40.43	30.72	27.55			40.43	30.72	27.55		
Pension for distribution business not considered by CERC	-	-	-	-		1.23	1.23	1.23	0.49	0.49
Other costs (incl. of Tariff filing & publication costs)	0.25	0.25	0.33	1.12	1.17	0.25	0.25	0.33	1.12	1.17
Water and Pollution Cess	-	-	-	2.79	2.65	-	-	-	2.79	2.65
Total Cost	3,447.59	3,439.70	3,614.63	4,565.53	4,795.61	3393.00	3385.11	3515.04	4514.66	4778.43
Non-Tariff Income	7.65	12.22	24.26	1.89	7.63	7.65	12.22	24.26	1.89	7.63
Net Cost	3,439.94	3,427.48	3,590.37	4,563.64	4,787.98	3385.35	3372.89	3490.78	4512.77	4770.80
Ratio of sales in Jharkhand Area to Total DVC area	63%	60%	60%	58%	59%	63%	60%	60%	58%	59%
Allocation of Cost to Jharkhand Area in ratio of energy sales in Jharkhand area	2,159.12	2,046.65	2,154.24	2,662.70	2,847.28	2124.86	2014.05	2094.48	2633.01	2836.93

Interest on Working Capital

Petitioner's Submission

- 5.61 The Petitioner has estimated the interest on working capital in accordance with the methodology adopted by the Commission in the past i.e. computation of working capital requirement at 1% of the revenue from sale of power.
- 5.62 Accordingly, the Petitioner submitted the interest on working capital to be Rs.1.97 Cr, Rs.1.94 Cr, Rs.2.45 Cr, Rs.2.56 Cr and Rs.2.38 Cr for FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 and FY 2010-11, respectively.

Commission's Analysis

- 5.63 The Commission is guided by the JSERC (Distribution Tariff) Regulations, 2004 for determining the working capital requirements for the retail & distribution business for the period FY 2006-07 to FY 2010-11. The abovementioned regulations provide that working capital is required to meet the shortfall in collection over and above the target approved by the Commission.
- 5.64 Accordingly, the Commission has estimated the working capital requirement for Jharkhand area to be 1% of the actual revenue from sale of power in the Jharkhand area in line with the said regulations applicable in the state of Jharkhand. 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. The following table summarises the computation of interest on working capital for FY 2006-07 to FY 2010-11 as per the Commission's analysis.

Table 28: Interest on Working Capital (Rs Cr) for Jharkhand Area for FY 2006-07 to FY 2010-11 as approved by the Commission

Particulars	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Revenue from sale of power in Jharkhand Area	2098	2256	2737	2995	2879
Working Capital Requirement in Jharkhand Area (@ 1% of Revenue from sale of power)	20.98	22.56	27.37	29.95	28.79
Interest Rate (%)	10.25%	12.25%	12.25%	12.25%	11.75%
Interest on Working Capital for Jharkhand Area	2.15	2.76	3.35	3.67	3.38

Revenue from Sale of Power in the Jharkhand Area*Petitioner's Submission*

- 5.65 The Petitioner has submitted the revenue realised from sale of power within the Jharkhand area to be Rs.1923.20 Cr, Rs.1586.35 Cr, Rs.1996.14 Cr, Rs.2092.40 Cr & Rs.2021.59 Cr for FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11, respectively.

Commission's Analysis

- 5.66 The Commission observed that the Petitioner had submitted figures of revenue realisation instead of revenue assessed.
- 5.67 As per Regulation 10, of the JSERC (Distribution Tariff) Regulations, 2004,

“10.1 No amount can be allowed to be passed on the consumer on the ground of it being bad and doubtful debt as it will lead to inefficiency in collection.”

- 5.68 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. In its reply, the Petitioner submitted the following information, as also submitted by the Petitioner, in its RTI reply to the Objectors:

Table 29: Figures of revenue assessed as submitted by the Petitioner (Rs Cr)

<i>Particulars</i>	2006-07	2007-08	2008-09	2009-10	2010-11
Firm Sale	3399.63	3813.01	4619.99	5136.89	4847.66
<i>Revenue from SOP in Jharkhand</i>	2097.76	2256.09	2737.41	2995.05	2878.70
<i>Revenue from SOP in WB</i>	1301.87	1556.92	1882.58	2141.84	1968.96
Bilateral Export	549.00	388.00	310.00	338.00	802.00
Sale through Exchange & Others	365.00	332.00	410.00	113.00	51.00
Less: Infirm Sale/ Other adjustment	0.00	45.00	56.00	34.00	80.00
Total Revenue Billed	4313.63	4488.01	5283.99	5553.89	5620.66

- 5.69 The Petitioner also submitted consumer wise revenue billed in support of the above information.
- 5.70 As stated in the Regulation 10 of JSERC Regulations, 2004, the Commission is of the view that any inefficiency in collection by the Petitioner cannot be passed on to the consumers. Hence, the Commission rejects the contention of the Petitioner to consider revenue realised from sale of power while determining the ARR. The Commission is already allowing working capital requirement to the tune of 1% of the revenue from sale of power to meet the shortfall in collection over and above the target approved by the Commission.
- 5.71 The Commission after scrutinising the information on revenue assessed submitted by the Petitioner and after verifying through the annual accounts and prudence check, approves the actual revenue assessed from sale of power in Jharkhand area as Rs. 2097.76 Cr, Rs 2256.09 Cr, Rs.2737.41 Cr, Rs. 2995.05 Cr & Rs. 2878.70 Cr for FY 2006-07, FY 2007-08, FY 2008-09, FY 2009-10 & FY 2010-11, respectively.

Summary of ARR for Jharkhand Area from FY 2006-07 to FY 2010-11

5.72 The following table summarizes the ARR for Jharkhand area as per DVC's submission and the Commission's analysis for the period FY 2006-07 to FY 2010-11.

Table 30: Summary of ARR (Rs Cr) for Jharkhand Area for FY 2006-07 to FY 2010-11 as per DVC's Submission and as per the Commission's Analysis

Particulars	DVC's Submission					Commission's Analysis				
	FY 2006- 07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11
Allocated input cost for Jharkhand Area	2,159.12	2,046.6	2,154.24	2,662.70	2,847.28	2124.86	2014.05	2094.48	2633.01	2836.93
Add: Tariff filing & publication expenses	0.24	0.23	0.27	0.63	0.66	0.24	0.23	0.27	0.63	0.66
Add: Interest on Working Capital	1.97	1.94	2.45	2.56	2.38	2.15	2.76	3.35	3.67	3.38
Total ARR for Jharkhand area	2161.20	2048.69	2156.79	2665.37	2849.76	2127.11	2016.92	2097.94	2636.79	2840.41
Revenue from sale of power in Jharkhand	1923.20	1586.35	1996.14	2092.40	2021.59	2097.76	2256.09	2737.41	2995.05	2878.70
Revenue Gap/(Surplus)	238.00	462.34	160.65	572.96	828.17	29.35	(239.17)	(639.47)	(358.26)	(38.29)
Sales (MU)	6761.63	7394.84	7740.31	8093.99	8549.47	6761.63	7394.84	7740.31	8093.99	8549.47
Average Cost of Supply (Rs/kWh)	3.20	2.77	2.79	3.29	3.33	3.15	2.73	2.71	3.26	3.32

A6: TRUE UP FOR FY 2011-12 TO FY 2014-15

- 6.1 The Petitioner has sought approval for the True-up of ARR & revenue for FY 2011-12 to FY 2013-14 based on the actual information and the annual accounts for the aforementioned years. Besides, Petitioner has also requested for Annual Performance Review of FY 2014-15.
- 6.2 The Commission, based on the audited accounts and other information made available by the Petitioner and the prudence check undertaken by the representatives of the Commission, analysed all the components of revenue and expenditure for FY 2011-12 to FY 2013-14. Further, Commission has carried out of True-up of FY 2014-15 as actual information along with audited annual accounts of FY 2014-15 were now made available by the Petitioner.
- 6.3 The component-wise description of the Petitioner's submission and the Commission's analysis on the same is provided herein-under.

Consumers, Connected Load & Energy Sales*Petitioner's Submission*

- 6.4 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 2011-12 to FY 2014-15 and same has been summarised in the table below.

Commission's Analysis

- 6.5 The Commission after scrutinising the latest information submitted by the Petitioner, the annual accounts made available for the aforementioned years and prudence check, approves the actual number of consumers, connected load and energy sales as submitted by the Petitioner for FY 2011-12 to FY 2014-15.

Table 31: Consumers, Connected Load & Energy Sales in Jharkhand Area as submitted by DVC & approved by the Commission for FY 2011-12 to FY 2014-15

Financial Year	Consumers (Nos.)	Energy Sales (MU)	Connected Load/ Contract Demand (MVA)
2011-12	149	8899.12	1547.96
2012-13	150	9096.66	1617.26
2013-14	155	9610.55	1677.01
2014-15	154	9815.15	1728.36

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

Petitioner's Submission

- 6.6 The Petitioner submitted that as it is supplying power in bulk to the WBSEDCL & JSEB and majority of HT consumers falling in the Damodar valley area are at 33 KV and above voltage, it incurs very low T&D losses.
- 6.7 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.
- 6.8 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 2011-12 to FY 2014-15.

Commission's Analysis

- 6.9 The Commission, in its Order dated 22.11.12, had approved T&D loss of 4.60% for FY 2011-12 based on the actual details submitted by the Petitioner. While scrutinising the submissions of the Petitioner in the instant Petition, the Commission observed that even though the Petitioner has submitted T&D loss of 4.60% for FY 2011-12, the quantum of the power procured from outside sources as submitted in the station-wise power purchase details did not match with the quantum of power procured from outside sources as submitted in the Energy Balance. Further scrutiny of the source-wise details of power purchase quantum along with details of own generation indicated actual T&D loss to the tune of 6.95% instead of 4.60% as claimed by the Petitioner. The Commission directed the Petitioner to submit justifications for the discrepancy observed. However, Petitioner failed to submit any suitable justification for the discrepancy. Accordingly, the Commission finds it prudent to adopt the T&D loss of 4.60% for FY 2011-12 as approved in its Order dated 22.11.12 and power procured in excess of normative loss level is disallowed.
- 6.10 Further, the Commission, in the MYT Order dated 04.09.2014, had set a T&D loss target of 3.00% for the Period FY 2012-13 to FY 2015-16. The Commission observes that the Petitioner has failed to achieve the loss target in the years FY 2012-13, FY 2013-14 and FY 2014-15. The Petitioner has reported T&D loss of 4.82%, 4.86% and 3.58% in FY 2012-13, FY 2013-14 and FY 2014-15 respectively. Accordingly, while computing the energy requirement for FY 2012-13, FY 2013-14 and FY 2014-15, the power procured in excess of normative loss levels is disallowed.
- 6.11 The disallowed units for FY 2011-12, FY 2012-13, FY 2013-14 and FY 2014-15 worked out to 408.72 MU, 318.28 MU, 343.30 MU and 106.28 MU respectively.

- 6.12 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 period from FY 2011-12 to FY 2014-15 has been summarised in following table:

Table 32: Energy Requirement (MU) for FY 2011-12 to FY 2014-15 as submitted by DVC & as approved by the Commission

Particulars	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
Energy sales within the State of Jharkhand	8899	9097	9611	9815	8899	9097	9611	9815
Energy Sales within the state of WB	6219	6882	7213	6983	6219	6882	7213	6983
Total Energy Sales in DVC Area	15118	15979	16823	16798	15118	15979	16823	16798
Energy Wheeled	347	199	228	279	347	199	228	279
Overall Utilization	15465	16178	17052	17077	15465	16178	17052	17077
T&D Loss (%)	6.95%*	4.82%	4.86%	3.58%	4.60%	3.00%	3.00%	3.00%
T&D Loss (MU)	1154	819	871	634	746	500	527	528
Total Energy Requirement for DVC	16619	16997	17922	17712	16211	16678	17579	17605

*Even though the Petitioner has claimed T&D loss of 4.60% in FY 12, actual loss works out to 6.95% as detailed in Para 6.9

Generation of power from own stations

Petitioner's Submission

- 6.13 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.
- 6.14 The actual generation available from own stations during the period FY 2011-12 to FY 2014-15 has been summarised in the following tables.

Table 33: Power availability (MU) from own stations during FY 2011-12 to FY 2014-15 as submitted by DVC

Station Name	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
BTPS	2632.60	2502.88	1274.92	1438.87
CTPS	1726.12	1608.73	1628.08	1561.71
DTPS	1550.02	1691.96	1542.54	1153.65
MTPS U# 1 to 3	2988.51	1886.14	2818.52	2063.36
MTPS U# 4	1044.11	1094.34	973.94	251.35

Station Name	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
MTPS U# 5 & 6	1918.61	1041.43	1111.77	3207.11
MTPS U# 7 & 8	1197.33	2089.47	2037.55	5110.98
CTPS U#7 & 8	542.50			2926.34
DSTPS U 1 & 2	-	1519.93	2447.63	3633.40
MTPS U# 8-- infirm	58.08	125.01		
CTPS U#7&8	308.84			
DSTPS U# 1 & 2 - -infirm	6.40	159.60		
KTPS 1-Infirm		31.15	384.515	
KTPS U#1			1225.11	373.52
KTPS U# 2 (POST COD)				1306.47
RTPS U # 1 (INFIRM)				35.14
KTPS U # 2 (INFIRM)				26.99
Hydel	301.18	201.92	171.30	274.28
Total	14274.30	13952.55	15615.88	

Commission's Analysis

- 6.15 The actual generation from own sources for FY 2011-12 to FY 2014-15 is in accordance with the relevant CERC Orders for the DVCs stations and same has been adopted by the Commission and is summarised in the following table:

Table 34: Energy available (MU) from own stations during FY 2011-12 to FY 2014-15 as adopted by the Commission

Station Name	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
BTPS	2632.60	2502.88	1274.92	1438.87
CTPS	1726.12	1608.73	1628.08	1561.71
DTPS	1550.02	1691.96	1542.54	1153.65
MTPS U# 1 to 3	2988.51	1886.14	2818.52	2063.36
MTPS U# 4	1044.11	1094.34	973.94	251.35
MTPS U# 5 & 6	1918.61	1041.43	1111.77	3207.11
MTPS U# 7 & 8	1197.33	2089.47	2037.55	5110.98
CTPS U#7 & 8	542.50			2926.34
DSTPS U 1 & 2	-	1519.93	2447.63	3633.40
MTPS U# 8-- infirm	58.08	125.01		
CTPS U#7&8	308.84			
DSTPS U# 1 & 2 - -infirm	6.40	159.60		

Station Name	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
KTPS 1-Infirm		31.15	384.515	
KTPS U#1			1225.11	373.52
KTPS U# 2 (POST COD)				1306.47
RTPS U # 1 (INFIRM)				35.14
KTPS U # 2 (INFIRM)				26.99
Hydel	301.18	201.92	171.30	274.28
Total	14274.30	13952.55	15615.88	23363.16

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

Petitioner's Submission

- 6.16 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.
- 6.17 Further, during the period FY 2011-12 to FY 2014-15, the Petitioner also purchased & sold power through the Unscheduled Interchange (UI) mechanism.

Commission's Analysis

- 6.18 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 FY 12 to FY 15.
- 6.19 As stated earlier, the Commission, in its Order dated 22.11.12, had approved T&D loss of 4.60% for FY 2011-12 based on the actual details submitted by the Petitioner. While scrutinising the submissions of the Petitioner in the instant Petition, the Commission observed that even though the Petitioner has submitted T&D loss of 4.60% for FY 2011-12, the quantum of the power procured from outside sources as submitted in the station-wise power purchase details did not match with the quantum of power procured from outside sources as submitted in the Energy Balance. Further scrutiny of the source-wise details of power purchase quantum along with details of own generation indicated actual T&D loss to the tune of 6.95% instead of 4.60% as claimed by the Petitioner. The Commission directed the Petitioner to submit justifications for the discrepancy observed. However, Petitioner failed to submit any suitable justification for the discrepancy. Accordingly, finds it prudent to adopt the T&D loss of 4.60% for FY 2011-12 as approved in its Order dated 22.11.12 and accordingly, the Commission has disallowed power procured in excess of normative loss level.

- 6.20 Further, as discussed in Para 6.9, the Petitioner has failed to achieve the T&D loss target for FY 2012-13, FY 2013-14 and FY 2014-15. 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.
- 6.21 The disallowed units for FY 2011-12, FY 2012-13, FY 2013-14 and FY 2014-15 worked out to 408.72 MU, 318.28 MU, 343.30 MU and 106.28 MU respectively.
- 6.22 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.
- 6.23 The following table summarises the station-wise net power purchase as submitted by the Petitioner and as approved by the Commission for the period FY 2011-12 to FY 2014-15.

Table 35: Station-wise Power Purchase (MU) for FY 2011-12 to FY 2014-15 as submitted by Petitioner & as approved by the Commission

Name of Station	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
NTPC								
TSTPS	20.24	20.24	33.00	58.39	20.24	20.24	33.00	58.39
FSTPS III	0.00	215.32	219.18	220.82	0.00	169.60	0.00	220.82
FSTPS I & II	0.00	0.00	22.02	69.26	0.00	0.00	10.50	69.26
KSTPS-I	0.00	0.00	11.48	33.24	0.00	0.00	11.48	33.24
KSTPS-II	0.00	0.00	19.98	67.42	0.00	0.00	19.98	67.42
NHPC								
Rangeet	33.57	31.29	33.89	30.49	33.57	31.29	33.89	30.49
Teesta	214.61	187.27	192.21	213.12	214.61	187.27	192.21	213.12
WBSEDCL	0.00	0.00	0.00	135.65	0.00	0.00	0.00	135.65
PTC								
Chukha	174.93	156.72	183.90	165.50	174.93	156.72	183.90	165.50
Kurichu	75.71	65.88	72.45	29.31	75.71	65.88	72.45	29.31
Tala	185.79	166.76	196.12	177.93	185.79	160.95	196.12	177.93
MPL	535.43	1462.43	1178.88	1278.43	535.43	1462.43	1178.88	1278.43
Net power purchase through UI	684.53	272.57	112.60	172.54	275.81	0.00	0.00	66.26
Net power purchase through energy	23.32	0.00	0.00	0.00	23.32	0.00	0.00	0.00

Name of Station	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
exchange								
NVVNL (SOLAR RPO)	0.00	0.00	17.68	31.38	0.00	0.00	17.68	31.38
NTPC (SOLAR RPO)	0.00	0.00	0.0015	21.39	0.00	0.00	0.0015	21.39
Total Power Purchase	1948.13	2578.46	2293.38	2704.86	1539.41	2260.18	1950.08	2598.59

Energy Balance

6.24 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 2011-12 to FY 2014-15 as submitted by the Petitioner and as per Commission's analysis has been summarised in the following table.

Table 36: Energy Balance (MU) for FY 2011-12 to FY 2014-15 as per Petitioner's Submission & the Commission's Analysis

Name of Station	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
A. Energy Requirement								
Energy sales within the State of Jharkhand	8899	9097	9611	9815	8899	9097	9611	9815
Energy Sales within the state of WB	6219	6882	7213	6983	6219	6882	7213	6983
Total Energy Sales in DVC Area	15118	15979	16823	16798	15118	15979	16823	16798
Energy Wheeled	347	199	228	279	347	199	228	279
Overall Utilization	15465	16178	17052	17077	15465	16178	17052	17077
T&D Loss (%)	4.60%	4.82%	4.86%	3.58%	4.60%	3.00%	3.00%	3.00%
T&D Loss (MU)	746	819	871	634	746	500	527	528
Total Energy Requirement for DVC	16211	16997	17922	17712	16211	16678	17579	17605
B. Energy Availability								
Own generation – Firm sources								
Thermal	17349	23307	25278	23301	17349	23307	25278	23301
Hydel	17048	23106	25049	23027	17048	23106	25049	23027
	301	202	229	274	301	202	229	274
Own Generation – Infirm sources	373	565	385	62	373	565	385	62
Net Power Purchase (incl. UI)	1540	2578	2293	2705	1540	2260	1950	2599
Energy recd. For wheeling	397	242	226	296	397	242	226	296

Name of Station	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
Less: Energy sold to other licensees	3448	9697	10260	8653	3448	9697	10260	8653
Total Energy Available for DVC	16211	16997	17922	17712	16211	16678	17579	17605

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

Petitioner's Submission

- 6.25 As mentioned in para 5.11 above, DVC constituted under the DVC Act, 1948, is a 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 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.
- 6.26 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

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

Table 37: Data of Issue of Final True-up/ Tariff Order

Station	Date of True-up Order for 2009-14	Date of Tariff Order for 2014-19
BTPS 'B'	29.07.2016	27.09.2016
CTPS U# 1,2,3	29.07.2016	23.09.2016
DTPS U # 3,4	29.07.2016	Not issued
MTPS U#1 to 3	29.07.2016	31.08.2016
MTPS U#4	29.07.2016	20.09.2016
MHS	29.07.2016	20.09.2016
PHS	29.07.2016	20.09.2016
THS	29.07.2016	23.09.2016
T&D System	Not issued	Not issued
MTPS U# 5 & 6	09.02.2017	17.03.2017
MTPS U# 7 & 8	29.07.2016	03.10.2016
CTPS U# 7 & 8	29.07.2016	17.02.2017
DSTPS U # 1 & 2	27.02.2017	17.03.2017
KTPS U # 1	22.08.2016	28.02.2017
KTPS U # 2	-	

- 6.28 The Commission after scrutinising 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 2011-12 to FY 2014-15 as approved by CERC in its relevant Tariff Orders.
- 6.29 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 2011-12 to FY 2014-15.
- 6.30 Further, as discussed in Para 5.27 to Para 5.29 of this Order, the Commission has computed the fixed charges for FY 2009-10 and FY 2010-11, including the contribution towards Pension & Gratuity Fund and Sinking Fund, linked to plant availability, as per the applicable CERC formula.
- 6.31 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 2011-12 to FY 2014-15 has been summarised in the following table:

**Table 38: Cost of own power generation (Rs Cr) for FY 2011-12 to FY 2014-15
as submitted by Petitioner & as adopted by the Commission based on the relevant CERC orders**

Components	FY 2011-12		FY 2012-13		FY 2013-14		FY 2014-15	
	Petitioner Submission	Commission Analysis	Petitioner Submission	Commission Analysis	Petitioner Submission	Commission Analysis	Petitioner Submission	Commission Analysis
Energy Charge	2,972.47	2,972.47	3,327.39	3,327.39	3,863.96	3,863.96	3,361.35	3,361.35
Fixed Charge	2,372.17	2,346.34	2,834.31	2,812.17	3,710.86	3,711.60	3,074.35	2,995.51
Own generation cost	5,344.64	5,318.81	6,161.70	6,139.56	7,574.82	7,575.56	6,435.70	6,356.86

- 6.32 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)

Petitioner's Submission

- 6.33 The Petitioner submitted the actual power purchase cost from CSGS & other sources during FY 2011-12, FY 2012-13, FY 2013-14 & FY 2014-15 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.

Commission's Analysis

- 6.34 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 2011-12 to FY 2014-15. 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.
- 6.35 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 2014-15. Accordingly, the Commission also finds it prudent to segregate the cost of RPO for FY 2013-14 and FY 2014-15 as per the RPO requirements stipulated by the respective Commissions and actual RPO compliance by the Petitioner.
- 6.36 The Petitioner has submitted the following information with respect to RPO compliance in FY 2013-14 and FY 2014-15:

Table 39: RPO status as submitted by the Petitioner

Components	FY 2013-14			FY 2014-15		
	Jharkhand	West Bengal	Share of Jharkhand (%)	Jharkhand	West Bengal	Share of Jharkhand (%)
Solar (MU)	10.10	7.58	57.13%	42.86	9.90	81.24%
Non-Solar REC (Nos.)	1466	1866	44.00%	1866	1466	56.00%

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

Table 40: Cost towards RPO approved by the Commission (Rs Lakhs)

Components	FY 2013-14			FY 2014-15		
	Actual Cost Incurred	Share of Jharkhand (%)	Cost for Jharkhand	Actual Cost Incurred	Share of Jharkhand (%)	Cost for Jharkhand
Solar	1970.86	57.13%	1125.95	5986.69	81.24%	4863.59
Non-Solar REC	49.98	44.00%	21.99	49.98	56.00%	27.99
Total Cost of RPO for Jharkhand			1147.94			4891.58

6.38 Thus, the net power purchase cost (including UI but other than own generation cost) has been approved for FY 2011-12, FY 2012-13, FY 2013-14 & FY 2014-15 as per the following table:

Table 41: Source-wise power purchase cost (Rs Cr) for FY 2011-12 to FY 2014-15 as submitted by Petitioner & as approved by the Commission

Source Stations	FY 2011-12					
	Petitioner's submission			Commission's analysis		
	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)
Rangit (NHPC)	33.57	7.204	2418.29	33.57	7.204	2418.29
Teesta (NHPC)	214.61	5.264	11296.95	214.61	5.264	11296.95
Chukha (PTC)	174.93	2.925	5117.31	174.93	2.925	5117.31
Kurichu (PTC)	75.71	3.192	2416.89	75.71	3.192	2416.89
Tala (PTC)	185.79	3.188	5923.67	185.79	3.188	5923.67
MPL	535.43	3.358	17979.89	535.43	3.358	17979.89
UI	684.53	3.099	21216.26	275.81	3.099	8548.40
TSTPS	20.24	6.206	1256.12	20.24	6.206	1256.12
ENERGY EXCHANGE	23.32	2.327	542.81	23.32	2.327	542.81
Total	1948.13		68168.19	1539.41		55500.33

Source Stations	FY 2012-13					
	Petitioner's submission			Commission's analysis		
	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)
Rangit (NHPC)	31.28	6.044	1890.70	31.28	6.044	1890.70
Teesta (NHPC)	187.27	2.977	5575.55	187.27	2.977	5575.55
Chukha (PTC)	156.72	1.645	2578.23	156.72	1.645	2578.23
Kurichu (PTC)	65.88	2.091	1377.50	65.88	2.091	1377.50
Tala (PTC)	166.76	2.080	3469.27	166.76	2.080	3469.27
MPL	1462.43	3.792	55451.52	1462.43	3.792	55451.52
UI	272.57	1.207	3289.51	-	-	-
TSTPS (NTPC)	20.24	2.504	506.88	20.24	2.504	506.88
Farakka (NTPC)	215.32	4.203	9050.93	169.60	4.203	7129.10
Purchase of REC ^{^^}			46.00			46.00
Transmission Cost			8162.27			8162.27
Total	2578.46		91398.36	2260.18		86141.02

^{^^}Ratio of actual RECs purchased for Jharkhand and West Bengal was same as the ratio of sales (used for segregating all common costs between the two states). Hence, the Commission has considered cost of RECs in the common power purchase cost.

DVC Order on True-up for FY 2006-07 to FY 2013-14 and APR for FY 2014-15

Source Stations	FY 2013-14					
	Petitioner's submission			Commission's analysis		
	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)
Rangit (NHPC)	33.89	3.40	1150.62	33.89	3.40	1150.62
Teesta (NHPC)	192.21	4.08	7843.59	192.21	4.08	7843.59
Chukha (PTC)	183.90	1.89	3479.37	183.90	1.89	3479.37
Kurichu (PTC)	72.45	2.07	1497.90	72.45	2.07	1497.90
Tala (PTC)	196.12	2.06	4044.23	196.12	2.06	4044.23
MPL	1178.88	4.67	55014.14	1178.88	4.67	55014.14
UI	112.60	0.18	199.43	-	-	-
TSTPS (NTPC)	33.00	3.04	1003.06	33.00	3.04	1003.06
Farakka-III (NTPC)	219.18	5.35	11721.83	-	-	-
Farakka-I and II (NTPC)	22.02	3.95	869.47	10.50	3.95	414.68
KHTPS-I (NTPC)	11.48	3.81	436.94	11.48	3.81	436.94
KHTPS-II (NTPC)	19.98	3.72	743.44	19.98	3.72	743.44
NVVN (Solar RPO)	17.68	11.15	1950.71	17.68	11.15	_*
-	0.001513		20.14	0.001513		_*
Purchase of REC	-	-	49.98	-	-	_*
Transmission Cost			10925.22			10925.22
Total	2293.38		100950.06	1950.08		86553.17
Cost of RPO for Jharkhand						1147.94

**Approved separately for Jharkhand*

Source Stations	FY 2014-15					
	Petitioner's submission			Commission's analysis		
	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)
Rangit (NHPC)	30.49	3.134	955.34	30.49	3.134	955.34
Teesta (NHPC)	213.12	2.606	5553.10	213.12	2.606	5553.10
Chukha (PTC)	165.50	1.878	3107.79	165.50	1.878	3107.79
Kurichu (PTC)	29.31	2.074	607.78	29.31	2.074	607.78
Tala (PTC)	177.93	2.062	3669.25	177.93	2.062	3669.25
MPL	1278.43	5.524	70618.33	1278.43	5.524	70618.33
WBSEDCL	135.65	0.603	817.88	135.65	0.603	817.88
UI	172.54	2.372	4092.61	66.26	2.372	1571.65
TSTPS (NTPC)	58.39	2.978	1739.02	58.39	2.978	1739.02
Farakka-III (NTPC)	220.82	4.997	11034.27	220.82	4.997	11034.27
Farakka-I and II (NTPC)	69.26	3.899	2700.71	69.26	3.899	2700.71

Source Stations	FY 2014-15					
	Petitioner's submission			Commission's analysis		
	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)	Energy (MU) (at DVC end)	Rate (Rs/kwh)	Cost (Rs. Lakhs)
KHTPS-I (NTPC)	33.24	3.982	1323.73	33.24	3.982	1323.73
KHTPS-II (NTPC)	67.42	3.740	2521.49	67.42	3.740	2521.49
NTPC Solar Power	21.39	9.582	2049.29	21.39	9.582	_*
NTPC - VVNL Solar Power	32.69	12.549	3937.40	32.69	12.549	_*
Purchase of REC	-	-	49.98	-	-	_*
Transmission Cost			13385.72			13385.72
Total	2704.86		122177.00	2598.59		119606.06
Cost of RPO for Jharkhand			4863.34			4891.58

**Approved separately for Jharkhand*

Other Fixed cost components

Input cost (other than power generation cost) for DVC

Petitioner's Submission

- 6.39 The Petitioner has claimed Rs 6.14 Cr as contribution towards Pension and Gratuity Fund attributed to the Distribution business, which has not been considered by the CERC.

Commission's Analysis

- 6.40 The contribution to pension and gratuity fund forms part of the annual fixed charges which are approved by the CERC in the relevant Tariff Orders of the DVC's generating stations.
- 6.41 However, as discussed earlier in Para 5.46, the CERC, has not allowed DVC to recover cost of contribution made to pension fund of Rs 6.14 Cr as the same cost has been attributed to the Distribution system and has not been considered in the costs allowable for DVC's generation systems. The Commission finds it prudent to allow recovery of such cost of Rs 6.14 Cr, with 60% recovery in FY 07 to 09 and the balance to be recovered in FY 10-14.
- 6.42 Accordingly, the Commission approves cost of Rs 0.49 Cr for each year of the period FY 2011-12 to FY 2013-14.

Water and Pollution Cess

Petitioner's Submission

- 6.43 The Petitioner has claimed water cess of Rs. 2.06 Cr., Rs. 2.72 Cr, Rs 2.02 Cr. and Rs. 2.50 Cr. for FY 2013-14, FY 2014-15 and FY 2015-16, respectively.

Commission's Analysis

- 6.44 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

- 6.45 The Petitioner submitted non-tariff income pertaining to revenue collected through delayed payment surcharge for DVC as a whole, for FY 2011-12, FY 2012-13, FY 2013-14 & FY 2014-15 as Rs.28.54 Cr, Rs.31.60 Cr, Rs.20.79 Cr & Rs.71.57 Cr respectively.

Commission's Analysis

- 6.46 As detailed in Paras 5.51 to 5.54 of this Order, the Commission, at present, approves the non-tariff income pertaining to delayed payment surcharge as Rs.28.54 Cr, Rs.231.60 Cr, Rs. 20.79 Cr & Rs.71.57 Cr respectively for the aforementioned years, as per audited annual accounts of the respective years.

Tariff Filing and Publication Expenses of CERC as well as JSERC

Petitioner's Submission

- 6.47 The Petitioner has submitted that tariff filing and publication expenses for DVC pertaining to the Jharkhand area are Rs.0.34 Cr, Rs 0.34 Cr, Rs 0.38 Cr and Rs 0.58 Cr for FY 2011-12, FY 2012-13, FY 2013-14 and FY 2014-15 respectively. Besides, Petitioner has also claimed tariff filing and publication expense of CERC for each year from FY 2011-12 to FY 2014-15.

Commission's Analysis

- 6.48 The Commission scrutinised 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 summarised in following table:

Table 42: Tariff Filing and Publication Expenses (Rs. Cr.) for FY 2011-12 to FY 2014-15 as submitted by Petitioner and as approved by the Commission

Particulars	Petitioner's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
Tariff Filing and Publication expense for JSERC	0.34	0.34	0.38	0.58	0.34	0.34	0.38	0.58
Tariff Filing and Publication expense for CERC	1.38	2.91	3.54	2.99	1.38	2.91	3.54	2.99

Allocation of Costs for DVC as a whole to Jharkhand Area

Petitioner's Submission

- 6.49 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

- 6.50 The Commission 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 adopts 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.
- 6.51 The following table summarises the input cost allocated to the Jharkhand area for the period FY 2011-12 to FY 2014-15 as submitted by the Petitioner and as approved by the Commission.

Table 43: Input Cost (Rs. Cr.) allocated for Jharkhand Area for FY 2011-12 to FY 2014-15 as per Petitioner's submission and as per Commission's analysis

Particulars	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
Own Generation cost adopted from relevant CERC Orders (A)	5344.64	6161.70	7574.82	6435.70	5318.81	6139.56	7575.56	6356.86
Power Purchase cost (B)	681.68	913.98	1009.50	1221.77	555.00	861.41	865.53	1196.06
Pension for	-	-	-	-	0.49	0.49	0.49	0.00

Particulars	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
distribution business not considered by CERC (C)								
Tariff filing and publication expense for CERC (D)	1.38	2.91	3.54	2.99	1.38	2.91	3.54	2.99
Water and Pollution Cess (E)	2.06	2.72	2.02	2.50	2.06	2.72	2.02	2.50
Sub-Total (F)	6,029.76	7081.31	8589.99	7662.96	5877.75	7007.09	8447.14	7558.41
Less: Non-Tariff Income (G)	28.54	31.60	20.79	71.57	28.54	231.60	20.79	71.57
Total ARR for DVC (H = F –G)	6001.22	7049.71	8569.09	7591.39	5849.21	6775.49	8426.35	7486.84
Ratio of sales in Jharkhand Area (I)	59%	57%	57%	58%	59%	57%	57%	58%
Allocated input cost to Jharkhand Area (J = H * I)	3532.56	4013.33	4895.21	4435.60	3443.08	3857.20	4813.67	4374.52

Interest on Working Capital

Petitioner's Submission

- 6.52 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.”

- 6.53 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.70.87 Cr, Rs.91.73 Cr, Rs.106.50 Cr and Rs.101.42 Cr for FY 2011-12, FY 2012-13, FY 2013-14 & FY 2014-15 respectively.

Commission's Analysis

- 6.54 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.

- 6.55 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.

- 6.56 Hence, the Commission has adopted the same methodology as described in the 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 truing 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....."

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

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

Table 44: Interest on Working Capital (Rs Cr) for Jharkhand Area for FY 2011-12 to FY 2014-15 as approved by the Commission

Particulars	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
Revenue from sale of power in Jharkhand Area	3412	3717	3910	4490
Working Capital Requirement in Jharkhand Area (@ 1% of Revenue from sale of power)	34.12	37.17	39.10	44.90
Interest Rate (%)	13.00%	14.75%	14.45%	14.75%
Interest on Working Capital for Jharkhand Area	4.44	5.48	5.65	6.62

Interest on Security Deposit

Petitioner's Submission

6.59 The Petitioner had considered the Interest on security deposit to be Rs. 1.02 Cr., Rs. 2.11 Cr., Rs. 1.27 Cr. And Rs 1.24 Cr respectively for FY 2011-12 to FY 2014-15.

Commission's Analysis

6.60 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

6.61 The Petitioner has submitted the revenue realised from sale of power within the Jharkhand area to be Rs.2571.89 Cr, Rs.3607.17 Cr, Rs.3304.18 Cr & Rs.4167.61 Cr for FY 2011-12, FY 2012-13, FY 2013-14 & FY 2014-15 respectively.

Commission's Analysis

6.62 The Commission observed that the Petitioner had submitted figures of revenue realisation instead of revenue assessed.

6.63 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 realised basis.

- 6.64 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. In its reply, the Petitioner submitted the following information, as submitted in the RTI reply to one of the Objectors:

Table 45: Figures of revenue assessed as submitted by the Petitioner (Rs Cr)

Particulars	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
Firm Sale	5807.70	6567.67	7095.21	7750.33
<i>Revenue from SOP in Jharkhand</i>	3412.38	3717.43	3910.08	4489.57
<i>Revenue from SOP in West Bengal</i>	2395.32	2850.24	3185.13	3260.76
Bilateral Export	1348.00	4161.00	4600.00	3486.00
Sale through Exchange & Others	53.00	40.00	34.00	72.00
Less: Infirm Sale/ Other adjustment	140.00	165.00	57.00	12.00
Total Revenue Billed	7068.70	10603.67	11672.21	11296.33

- 6.65 The Petitioner also submitted consumer wise revenue billed in support of the above information.
- 6.66 The Commission after scrutinising 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. 3412.38 Cr, Rs 3717.43 Cr, Rs. 3910.08 Cr, Rs. 4489.57 Cr for FY 2011-12, FY 2012-13, FY 2013-14 & FY 2014-15, respectively.

Summary of ARR for Jharkhand Area from FY 2011-12 to FY 2014-15

- 6.67 The following table summarizes the ARR for Jharkhand area as per DVC's submission and the Commission's analysis for the period FY 2011-12 to FY 2014-15.

Table 46: Summary of ARR (Rs Cr) for Jharkhand Area for FY 2011-12 to FY 2014-15 as per DVC's Submission and as per the Commission's Analysis

Particulars	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
Allocated input cost for Jharkhand Area	3532.56	3517.65	4895.21	4435.60	3443.08	3857.20	4813.67	4374.52
Add: Cost of Solar and Non-Solar Power Purchased to meet the RPO in the state of Jharkhand	-	-	-*	48.63	-	-	11.48*	48.92
Add: Tariff filing & publication expenses	0.34	0.34	0.38	0.58	0.34	0.34	0.38	0.58
Add: IWC for Jharkhand Area	70.87	91.73	106.50	101.42	4.44	5.48	5.65	6.62

Particulars	DVC's Submission				Commission's Analysis			
	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2011- 12	FY 2012-13	FY 2013-14	FY 2014-15
Add: Interest on Security Deposits	1.02	2.11	1.27	1.24	1.02	2.11	1.27	1.24
Total ARR for Jharkhand area	3604.80	4107.52	5003.36	4587.48	3448.88	3865.14	4832.45	4431.88
Revenue from sale of power in Jharkhand	2571.89	3607.17	3304.18	4167.61	3412.38	3717.43	3910.08	4489.57
Revenue Gap/(Surplus)	1032.91	500.34	1699.18	419.87	36.50	147.71	922.37	(57.69)
Sales (MU)	8899.12	9096.66	9610.55	9815.15	8899.12	9096.66	9610.55	9815.15
Average Cost of Supply (Rs/kWh)	4.05	4.52	5.21	4.67	3.88	4.25	5.03	4.52

**Petitioner has claimed the same as part of Power Purchase Cost*

A7: CUMULATIVE REVENUE GAP/ SURPLUS

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

Table 47: Cumulative Gap/ (Surplus) (Rs Cr) for Jharkhand Area from FY 2006-07 to FY 2014-15 as submitted by the Petitioner

PARTICULARS		2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	Total
Net ARR (DVC Jharkhand)	A	2161.39	2048.87	2156.97	2665.37	2849.74	3604.80	4107.52	5003.36	4587.48	29185.49
Net Receipt	B	1923.20	1586.35	1996.14	2092.40	2021.59	2571.89	3607.17	3304.18	4167.61	23270.55
Revenue Gap	C= A-B	238.18	462.52	160.83	572.97	828.15	1032.91	500.34	1699.18	419.87	5914.95
SBI Prime Lending Rate	D	H1	H2	H3	H4	H5	H6	H7	H8	H9	---
		10.25%	12.25%	12.25%	12.25%	11.75%	13.00%	14.75%	14.45%	14.75%	---
Carrying cost claim of DVC up to 31.03.2016	E = $D \times \sum C/100$	0.00	286.30	499.29	153.91	478.14	593.78	606.32	219.90	501.26	3338.90
Total Receivable(+) / Refundable(-)	F=C+E	238.18	748.82	660.12	726.88	1306.29	1626.69	1106.66	1919.08	921.13	9253.85

Table 48: Cumulative Gap / (Surplus) (Rs Cr) for Jharkhand Area from FY 2006-07 to FY 2014-15 as approved by the Commission

	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Opening Gap	0.00	30.86	(219.18)	(924.68)	(1418.16)	(1625.32)	(1797.74)	(1904.30)	(1190.47)
Add: Revenue Gap/ (Surplus) for the year	29.35	(239.17)	(639.47)	(358.26)	(38.29)	36.50	147.71	922.37	(57.69)
Closing Gap / (Surplus)	29.35	(208.32)	(858.66)	(1282.94)	(1456.44)	(1588.82)	(1650.03)	(981.94)	(1248.16)
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)	(166.63)	(211.29)	(265.17)	(275.17)	(175.59)
Interest on Additions	1.50	(14.65)	(39.17)	(21.94)	(2.25)	2.37	10.89	66.64	(4.25)
Total Carrying Cost	1.50	(10.87)	(66.02)	(135.22)	(168.88)	(208.92)	(254.27)	(208.53)	(179.85)
Closing Gap / (surplus) incld. carrying cost	30.86	(219.18)	(924.68)	(1418.16)	(1625.32)	(1797.74)	(1904.30)	(1190.47)	(1428.01)

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on this 19th Day of April, 2017.

Date: 19.04.2017

Place: Ranchi

(Mr. R.N. Singh)

MEMBER (T)

(N.N. TIWARI, J)

CHAIRPERSON

A8: ANNEXURE-I**a) List of participating members of public in the public hearing held on 06.03.2017 at Auditorium, Combined Building, Area No. 6, DVC Maithon, Dhanbad**

Sl. No.	Name	Address / Organisation if any
1	Vishal Prasad	Jai Prabhuji Iron & Steel
2	R. Singh Chhabra	Jai Prabhuji Iron & Steel
3	Sushil Singh	Jai Prabhuji Iron & Steel
4	Mohan Sao	Jai Prabhuji Iron & Steel
5	Amit Agarwal	Anjaney ferro alloys limited
6	Kapil M Pandey	Super smelters Uderna
7	S.K. Kunov	CLD, DVC, Maithon
8	P.N. Singh	Maithon
9	S.K. Datta	CLD, DVC, Maithon
10	R.P. Gupta	CLD, DVC, Maithon
11	Ramjee Pandey	Finance Dep., DVC
12	M. Vijay Kumar	PRO Dep., DVC
13	T. K. Chakraborty	Central Accounts, DVC, Kolkata
14	D.K. Aich	CE-I (Coml), DVC, Kolkata
15	A. Patra	DCE (Comml) DVC, Kolkata
16	S. Ganguli	DCE (Comml) DVC, Kolkata
17	S. K. Sahu	DCE (Trans') E/Z, Maithon
18	S. Pandit	Sr. Manager (F), DVC, HQ
19	B.K. Yadav	DCE (Trans') E/Z, Maithon
20	B. Mandel	S.E., CLD, Maithon
21	P. Bhattacharya	Comml, DVC, Kolkata
22	S. Ghosal	Comm., DVC, Kolkata
23	Abhijit Chakarborty	Dy. CE (Tans/), DVC
24	Satish Kumar	Comml, DVC, Kolkata
25	M. Bisan	Comml, DVC, Kolkata
26	B. Pan	DVC/SLDC
27	Saurabh Srivastava	Association of DVC HT Consumers
28	D, Ghosal	A.E., Commercial, DVC
29	Rajesh Kumar	DCE(E), CTC, Maithon
30	B.D. Sahu	CE & HOP, Maithon
31	S. Shosh	Coml. Deptt./DVC/Kolkata
32	S. Maitra	CE (C&M), Maithon
33	N. K. Singh	DCE (E), O/o CECH
34	C. Das	DCE(M), C&M, Maithon
35	Indrasit Nondi	Member (F), CGRF, Maithon
36	S. Moitra	Mamber (F) A/cs
37	P.K. Datta	DVC, Maithon
38	A.K. Malhi	Chief Engineer, Maithon
39	A. K. Jha	Sr. Chief Engg. (System)
40	G.K. Chanda	Chief Engg. (Trans)

Sl. No.	Name	Address / Organisation if any
41	A.K. Chandhary	Director Castron Tech Ltd.
42	Atul Agarwala	Director Castron Tech Ltd.
43	Manab Dey	Maithon
44	S. Ganguly	Maithon
45	Robindra Sahu	Maithon -6
46	Ravindra Kumar Baruwat	Maithon Area- 3
47	B. Nandi	DCE (c), C&M, Maithon
48	P. K. Das	CE, TSC, Maithon
49	T. N. Datta	CE (CTC), Maithon
50	Atul Agarwala	Castion Tech Ltd.
51	Pramod Agarwal	Shivam Iron & Steel Co. Ltd.
52	K.G. Ajay Kumar	Electro Steel
53	Jayanta Burwan	Maithon
54	Dhananjay Kumar	Maihar Alloys (P) Ltd.
55	Pramod Agarwal	Association of Jharkhand DVC consumer
56	S. Nag	DVC, Maithon
57	B.N.Singh	Ranchi
58	H.K. Budhia	Ranchi
59	S.K.F. Kujur	Ranchi
60	Manoj Kr. Bhatotia	CC Pvt. Ltd., Ramgarh
61	Amit Kumar Das	Shree Vardhana M Pvt. Ltd.
62	T. Jalan	Maithon Press Awaz
63	Dharmendra	Maithon
64	Rakesh Kumar Singh	Shree Bholay Alloys
65	Pratap Raj	Rastriya Khabar
66	Kashi Nath Prasad Gupta	Maithon Post Office
67	Infrate Auddya	Maithon
68	Barun Barman	Maithon
69	Vikash Agarwal	Maithon
70	Sanjeeb Kumar Sharma	Ramgarh
71	Sunil Kumar Thakur	JBVNL
72	Rishi Nandan	JBVNL
73	Guneet Singh	JBVNL (cons.)
74	C.P. Singh	DGM (Admn.)
75	S. Basu	O/o the DGM (A)

b) List of participating members of public in the public hearing held on 02.04.2017 at Hotel Treat, Thana Chowk, Ramgarh

Sl. No.	Name	Address / Organisation if any
1	A. N. Choudhary	Kadma, Jamshedpur
2	S. Ghosal	DVC, Commercial, Kolkata
3	Debshankar Ghosh	DVC, Commercial, Kolkata
4	B. Pan	DVC, SLDC
5	M. Biswas	DVC, Commercial, Kolkata
6	Hari Budhia	Bihar Foundary & Casting Ltd.
7	Bijay	Dayal Steel Ltd.
8	Pramod Agrawala	Association of HT Consumer of Jharkhand
9	B.N.P. Singh	Ranchi
10	Satish Kumar	DVC, Commercial, Kolkata
11	Pulak Bhattacharya	DVC, Commercial, Kolkata
12	G.K. Chandan	Transmission, DVC, Maithon
13	G.M. Ansari	Yash Alloys (P), Gola
14	A.K. Das	DVC, Maithon
15	D.K. Aich	CE-I (Com.), DVC, Kolkata
16	A. Chakarborty	CE (CLD), DVC, Maithon
17	R. Chanda	MES Army Camp, Ramgarh
18	Rajesh Kumar	SE, DVC, GOMD-Vii
19	C.S. Sahu	MES Army Camp, Ramgarh
20	S.K.F. Kujur	Ranchi
21	Dr. Sushil Kumar	Ranchi Road, Ramgarh
22	D.K.pandey, G.M Legal	Jharkhand Ispat (P) Ltd.
23	Vikas	GOMD-V, DVC Ramgarh
24	Rhithu Kaushal	EE (E), DVC Ramgarh GOMD - V
25	Rakesh Gupta	Bihar Foundary & Casting Ltd.
26	M. Ram, Dy. Mgr (E)	Ramgarh
27	Hari Shankar Choubey	Incharge DVC Gola
28	R.K. Prasad	Rly, EC
29	M. K. Mausam	Natraj Iron Dhanbad
30	Rahul Kumar	CCL Hazaribagh Area
31	Varun Kumar	CCL, Kuju
32	V.N. Prajay	CCL Argada
33	Bijay Kumar Rajak	Tata Steel West Bokaro
34	Rajeev Sharma	JSPL
35	Om Prakash	Ramgarh
36	B.N. Mohapatra	Ramgarh
37	Rakesh Gupta	Shree Bohley Alloys
38	Rishi Nandan	ESE, JBNL
39	D. Kumar	Ramgarh
40	Arvind Kumar	Ramgarh
41	Ajay Singh	Ramgarh

A9: APPENDIX-I**STATION-WISE COST OF OWN GENERATION APPROVED BY THE COMMISSION FOR FY 2011-12 TO FY 2014-15****a) FY 2011-12**

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY)	Total Annual Fixed charge (AFC) As per latest CERC orders	Applicable CERC Formula	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Total fixed cost applicable for the distribution activity (in Rs. Lakh)	Energy for firm sale (MU)	Energy Charge Rate (P/kWh)	Energy Charge (Rs Lakhs)
BTPS	75%	60%	37201.40	$AFC \times (PAFY / NAPAF)$	29686.68	88.81%	26363.58	2632.60	158.40	41700.41
CTPS	60%	64%	23933.90	$AFC \times (PAFY / NAPAF)$	25643.50	88.81%	22772.99	1726.12	190.00	32796.26
DTPS	74%	64%	23031.93	$AFC \times (PAFY / NAPAF)$	19796.50	88.81%	17580.53	1550.02	302.70	46918.97
MTPS U#1 to 3	82%	67%	51235.14	$AFC \times (PAFY / NAPAF)$	41868.68	88.81%	37181.85	2988.51	230.10	68765.69
MTPS U#4	82%	70%	21602.61	$AFC \times (0.5 + 0.5 \times PAFY / (NAPAF))$	20052.50	88.81%	17807.87	1044.11	230.10	24025.03
MHS	80%	80%	3180.39	$AFC \times (PAFY / NAPAF)$	3180.39	100.00%	3180.39	-	-	-
PHS	80%	80%	2292.51	$AFC \times (PAFY / NAPAF)$	2292.51	100.00%	2292.51	-	-	-
THS	80%	80%	752.99	$AFC \times (PAFY / NAPAF)$	752.99	100.00%	752.99	-	-	-
T& D	98%	98%	42424.43	$ATC \times (TAFY / NATAF)$	42424.43	100.00%	42424.43	-	-	-
MTPS U# 5 & 6	85%	82%	59579.81	$AFC \times (0.5 + 0.5 \times PAFY) / (NAPAF)$	58639.32	58.48%	34290.46	1918.61	209.50	40194.88
MTPS U# 7 & 8	85%	45%	35340.69*	$AFC \times (0.5 + 35 / NAPAF) \times (PAFY / 70)$	20897.21	96.22%	20107.57	1197.33	236.02	28258.83
CTPS U # 7 & 8	85%	59%	31449.71**	$AFC \times (0.5 + 35 / NAPAF) \times (PAFY / 70)$	24177.91	40.86%	9879.00	542.50	153.10	8305.70
MTPS U#7&8 (Infirm)								58.08	236.02	1370.78
CTPS U#7&8 (Infirm)								308.84	153.10	4728.34
KTPS U# 1&2 (Infirm)								6.40	285.01	182.41
DSTPS U# 1&2 (Infirm)										
Total							234634.17	13973.12		297247.30

*For 243 days of operation; ** For 110 days of operation of Unit 8 and 151 days of operation of Unit 7 and 8

b) FY 2012-13

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY)	Total Annual Fixed charge (AFC) As per latest CERC orders	Applicable CERC Formula	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Total fixed cost applicable for the distribution activity (in Rs. Lakh)	Energy for firm sale (MU)	Energy Charge Rate (P/kWh)	Energy Charge (Rs Lakhs)
BTPS	75%	65%	42568.55	$AFC \times (PAFY / NAPAF)$	36908.69	90.71%	33480.19	2502.88	167.70	41972.81
CTPS	60%	62%	24223.34	$AFC \times (PAFY / NAPAF)$	24858.80	91.02%	22627.14	1608.73	212.67	34213.27
DTPS	74%	76%	23641.62	$AFC \times (PAFY / NAPAF)$	24233.97	92.24%	22352.81	1691.96	306.10	51790.41
MTPS U#1 to 3	82%	55%	51880.12	$AFC \times (PAFY / NAPAF)$	34560.01	88.04%	30425.52	1886.14	257.69	48603.63
MTPS U#4	82%	77%	21833.13	$AFC \times (0.5+0.5 \times PAFY / NAPAF)$	21216.09	92.76%	19679.71	1094.34	257.69	28200.05
MHS	80%	80%	3250.79	$AFC \times (PAFY / NAPAF)$	3250.79	100.00%	3250.79	-	-	-
PHS	80%	80%	2348.09	$AFC \times (PAFY / NAPAF)$	2348.09	100.00%	2348.09	-	-	-
THS	80%	80%	792.78	$AFC \times (PAFY / NAPAF)$	792.78	100.00%	792.78	-	-	-
T& D	98%	99%	44193.82	$ATC \times (TAFY / NATAF)$	44665.35	100.00%	44665.35	-	-	-
MTPS U# 5 & 6	85%	89%	62503.02	$AFC \times (0.5 + 0.5 \times PAFY / NAPAF)$	64034.26	32.76%	20975.05	1041.43	259.56	27031.77
MTPS U# 7 & 8	85%	82%	98228.58*	$AFC \times (0.5 + 0.5 \times PAFY / NAPAF)$	96451.14	43.99%	42424.44	2089.47	236.10	49331.90
DSTPS U#1& 2	85%	69%	62387.83**	$AFC \times (0.5 + 35 / NAPAF) \times (PAFY / 70)$	56317.98	67.82%	38194.97	1519.93	285.01	43320.34
MTPS U#7&8 (Infirm)								124.99	236.10	2951.09
DSTPS U# 1&2 (Infirm)								159.60	285.01	4548.90
KTPS U# 1&2 (Infirm)								31.15	248.77	774.91
Total							281216.83	13750.62		332739.06

*For 137 days of operation of Unit 7 and 228 days of operation of Unit 7 & 8; For 294 days of operation of Unit 1 and 27 days of Unit 1 and 2

c) FY 2013-14

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY)	Total Annual Fixed charge (AFC) As per latest CERC orders	Applicable CERC Formula	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Total fixed cost applicable for the distribution activity (in Rs. Lakh)	Energy for firm sale (MU)	Energy Charge Rate (P/kWh)	Energy Charge (Rs Lakhs)
BTPS	75%	70%	41531.59	$AFC \times (PAFY / NAPAF)$	38550.76	83.86%	32328.75	1274.92	172.55	21998.20
CTPS	60%	70%	24051.94	$AFC \times (PAFY / NAPAF)$	27961.41	91.47%	25575.28	1628.08	250.15	40726.37
DTPS	74%	87%	22565.86	$AFC \times (PAFY / NAPAF)$	26654.79	91.88%	24490.50	1542.54	339.52	52372.66
MTPS U#1 to 3	82%	79%	42581.14	$AFC \times (PAFY / NAPAF)$	41193.17	91.99%	37894.23	2818.52	239.65	67545.92
MTPS U#4	82%	91%	20911.87	$AFC \times (0.5+0.5 \times PAFY / NAPAF)$	22007.62	92.25%	20302.63	973.94	239.65	23340.55
MHS	80%	80%	3235.23	$AFC \times (PAFY / NAPAF)$	3235.23	74.92%	2423.97	-	-	-
PHS	80%	80%	2338.65	$AFC \times (PAFY / NAPAF)$	2338.65	74.92%	1752.22	-	-	-
THS	80%	80%	830.28	$AFC \times (PAFY / NAPAF)$	830.28	74.92%	622.08	-	-	-
T& D	98%	95%	45497.32	$ATC \times (TAFY / NATAF)$	44067.02	100.00%	44067.02	-	-	-
MTPS U# 5 & 6	85%	93%	59322.70	$AFC \times (0.5 + 0.5 \times PAFY / NAPAF)$	62007.25	35.75%	22168.61	1111.77	242.21	26928.29
MTPS U# 7 & 8	85%	76%	118208.75	$AFC \times (0.5 + 0.5 \times PAFY / NAPAF)$	112066.08	43.13%	48335.89	2037.55	208.41	42463.99
DSTPS U#1& 2	85%	76%	130975.09	$AFC \times (0.5 + 0.5 \times PAFY / NAPAF)$	124413.31	58.88%	73250.03	2447.63	289.99	70978.01
KTPS U#1	85%	71%	46848.74*	$AFC \times (0.5 + 0.5 \times PAFY / NAPAF)$	43102.40	88.04%	37948.32	1225.11	248.77	30476.83
KTPS U# 1&2 (Infir)								384.52	248.77	9565.50
Total							371159.93	15444.58		386396.32

*For 257 days of operation

d) FY 2014-15

Station	Normative availability (NAPAF)	Actual Yearly Availability (PAFY)	Total Annual Fixed charge (AFC) As per latest CERC orders	Applicable CERC Formula	Total Recoverable fixed charge according to applicable CERC formula	Share of firm consumer	Total fixed cost applicable for the distribution activity (in Rs. Lakh)	Energy for firm sale (MU)	Energy Charge Rate (P/kWh)	Energy Charge (Rs Lakhs)
BTPS 'B'	75	58.09	24332.69*	AFC x (PAFY/ NAPAF)	18846.69	88.12%	16606.97	1267.88	204.70	25953.45
CTPS U# 1 to 3	75	55.21	20349.62	AFC x (PAFY/ NAPAF)	14979.80	93.22%	13964.46	1455.86	286.90	41768.55
DTPS U# 3,4	74	64.25	19602.64**	AFC x (PAFY/ NAPAF)	17019.46	91.77%	15618.01	1058.66	287.10	30394.08
MTPS U#1 to 3	83	67.48	31724.47	AFC x (PAFY/ NAPAF)	25794.13	91.71%	23656.53	1892.36	235.40	44546.19
MTPS U#4	85	64.48	15781.80	AFC x (PAFY/ NAPAF)	11971.53	77.32%	9256.74	194.35	249.20	4843.16
MHS	80	80.00	2886.36	AFC x (PAFY/ NAPAF)	2886.36	85.43%	2465.92	-	-	-
PHS	80	80.00	2110.37	AFC x (PAFY/ NAPAF)	2110.37	85.43%	1802.97	-	-	-
THS	80	80.00	767.76	AFC x (PAFY/ NAPAF)	767.76	85.43%	655.93	-	-	-
T& D	98	97.52	51767.69	AFC x (TAFY/ NATAF)	51512.57	100.00%	51512.57	-	-	-
MTPS U# 5 & 6	83	89.76	48206.68	AFC x (PAFY/ NAPAF)	52131.85	45.54%	23741.14	1460.54	232.50	33957.50
MTPS U# 7 & 8	83	69.56	111191.37	AFC x (PAFY/ NAPAF)	93180.10	53.72%	50057.99	2745.71	228.40	62711.95
CTPS U# 7 & 8	83	77.86	55986.48	AFC x (PAFY/ NAPAF)	52520.11	24.22%	12719.74	708.73	204.80	14514.70
DSTPS U#1& 2	83	57.02	121631.19	AFC x (PAFY/ NAPAF)	83553.39	59.72%	49894.82	2169.72	215.70	46800.89
KTPS U#1	83	11.14	58205.15	AFC x (PAFY/ NAPAF)	7814.53	78.07%	6100.63	291.59	204.90	5974.77
KTPS U#2	83	43.92	45412.34***	AFC x (PAFY/ NAPAF)	24030.32	89.46%	21496.69	1168.72	199.80	23351.08
KTPS U# 2 (Infirm)								26.99	199.80	539.17
RTPS U# 1 (Infirm)								35.14	221.72	779.19
Total							299551.10	14476.24		336134.68

*Totalling mistake in CERC Order; **As per True-up Order for FY 09-14 after deducting cost of secondary fuel oil and other adjustments; ***For 291 days of operation