



## **TARIFF ORDER**

### **Determination of**

### **Aggregate Revenue Requirement and Retail Tariff**

### **For FY 2015-16**

Petition No. 164/2015

**and**

### **ARR Review for FY 2014-15**

Initial Petition No. 126/2014

**and**

### **Provisional True Up for FY 2013-14**

Initial Petition No. 100/2013

**and**

### **Business Plan FY 2015-16 to FY 2017-18**

Petition No. 163/2015

### **Electricity Department, Union Territory of Chandigarh**

संयुक्त विद्युत विनियामक आयोग (गोवा राज्य और संघ शासित प्रदेशों के लिए)

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**for the State of Goa and Union Territories**

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**10 April 2015**

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**LIST OF ANNEXURES**

<b>S. No.</b>	<b>Annexure</b>
1.	Petitions’ Admission Order dated March 13 <sup>th</sup> , 2015 issued by JERC
2.	Public Notices published by the Petitioner for inviting objections/suggestions on the ARR & tariff petition
3.	Public Notices published by the Commission for intimation of Public Hearing
4.	List of Objectors
5	List of Stake holders who participated in the Public Hearing

**LIST OF ABBREVIATIONS**

<b>Abbreviation</b>		<b>Full Form</b>
A&G	:	Administration & General Expenses
Act	:	The Electricity Act, 2003
ARR	:	Aggregate Revenue Requirement
BBMB	:	Bhakra Beas Management Board
CAGR	:	Compound Annualized Growth rate
Capex	:	Capital Expenditure
CC	:	Current Consumption
CEA	:	Central Electricity Authority
CED	:	Chandigarh Electricity Department
CERC	:	Central Electricity Regulatory Commission
CGS	:	Central Generating Station
COD	:	Commercial Operation Date
CKt. Km	:	Circuit Kilometer
DISCOM/CED	:	Electricity Department of UT of Chandigarh
CPSU	:	Central Public Sector Undertaking
D/C	:	Double Circuit
DS	:	Domestic Supply
EA 2003	:	The Electricity Act, 2003
FC	:	Fixed Charges
FPPCA	:	Fuel & Power Purchase Cost Adjustment
FY	:	Financial Year
GFA	:	Gross Fixed Assets
HP	:	Horse Power
HT	:	High Tension
JERC/Commission	:	Joint Electricity Regulatory Commission for the State of Goa and union Territories
KVA	:	Kilo Volt Ampere
KWh	:	Kilo Watt Hour
LPS	:	Late Payment Surcharge
LT	:	Low Tension
MU	:	Million Unit
MW	:	Mega Watt
MYT	:	Multi Year Tariff
NAPS	:	Narora Atomic Power Station
NDS	:	Non-Domestic Supply
NFA	:	Net Fixed Assets
NHPC	:	NHPC Limited
NPCIL	:	Nuclear Corporation of India Limited
NTPC	:	NTPC Limited

<b>Abbreviation</b>		<b>Full Form</b>
NTP/Tariff Policy	:	National Tariff Policy
NSPCL	:	NTPC-SAIL Power Corporation Limited
O/H	:	Over head
O&M	:	Operation & Maintenance
PGCIL	:	Power Grid Corporation of India Ltd.
PLF	:	Plant Load Factor
PX	:	Power Exchange
RoE	:	Return on Equity
RPO	:	Renewable Purchase Obligation
R&M	:	Repair & Maintenance
RAPP	:	Rajasthan Atomic Power Project
RE	:	Revised Estimates
REA	:	Regional Energy Accounting
RLDC	:	Regional Load Dispatch Centre
SCL	:	Sanctioned Connected Load
S/C	:	Single Circuit
SLDC	:	State Load Dispatch Centre
SBI CAPS	:	SBI Capital Market Limited
SBI PLR	:	SBI Prime Lending Rate
SBAR	:	State Bank Advance Rate
SJVNL	:	Satluj Jal Vidyut Nigam Limited
T&D	:	Transmission & Distribution
UI	:	Unscheduled Interchange
VAR	:	Volt Ampere Reactive
VC	:	Variable Charges



Before the  
**Joint Electricity Regulatory Commission**  
for the  
**State of Goa and Union Territories**  
**Gurgaon**

Quorum<sup>1</sup>

S.K. Chaturvedi (Chairperson)

**Petition No. 164/2015**

**Petition No. 163/2015**

In the matter of

Aggregate Revenue Requirement (ARR) and Retail Tariff for the Financial Year 2015-16, Review of FY 2014-15 , Provisional True-Up for FY 2013-14 and Business Plan for FY 2015-16 to FY 2017-18 for the Electricity Department, Union Territory of Chandigarh

In the matter of

Electricity Department, Union Territory of Chandigarh.....Petitioner

**ORDER**

**Date: 10 April 2015**

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<sup>1</sup> As per section 93 of the Electricity Act, 2003; No act or proceedings of the Appropriate Commission shall be questioned or shall be invalidated merely on the ground of existence of any vacancy or defect in the constitution of the Appropriate Commission. Therefore, Shri S.K. Chaturvedi constituted the valid quorum for the public hearing in respect of the determination of ARR & Tariff for 2015-16 and for Review of ARR FY 2014-15 as well as True up due to vacancy of the position of Hon'ble Member in the Joint Electricity Regulatory Commission for the state of Goa and the UTs.

## 1. INTRODUCTION

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### 1.1 JERC Formation

In exercise of the powers conferred by Section 83 of the Electricity Act, 2003 the Central Government constituted a two member (including Chairperson) Joint Electricity Regulatory Commission for all Union Territories except Delhi to be known as “Joint Electricity Regulatory Commission for Union Territories” with headquarters at Delhi as notified vide notification no. 23/52/2003 – R&R dated May 2<sup>nd</sup> 2005. Later with the joining of the state of Goa, the Commission came to be known as “Joint Electricity Regulatory Commission for the State of Goa and Union Territories” as notified on May 30<sup>th</sup> 2008. The Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Andaman & Nicobar Islands, Chandigarh, Dadra and Nagar Haveli, Daman & Diu, Lakshadweep and Puducherry) started functioning with effect from August 2008. Office of the Commission is presently located in Gurgaon, Haryana.

### 1.2 Electricity Department of UT Administration of Chandigarh

Chandigarh is a Union Territory in India, which spreads over an area of 114 sq. km. The Electricity Department of UT Administration of Chandigarh herein called ED Chandigarh, a deemed licensee under section 14 of the Electricity Act 2003, is carrying on the business of transmission, distribution and retail supply of electricity in Chandigarh (UT). The Chandigarh Electricity Department (CED) has been allowed to function as an integrated electricity distribution licensee of Union Territory of Chandigarh. The department is engaged in the procurement, transmission and distribution of electricity to the various consumer categories in the Union Territory of Chandigarh. It does not have its own power generation station and completely relies on the Central Sector Generating Stations (CSGS) to meet its energy demand except for a few Solar Roof Top Plants. The total population of Chandigarh as per 2011 census was 1,055,450 with population density being 9,252 persons per sq. km.

The present power entitlement is 303.23 MW. The peak demand for FY 2014-15 touched 395 MW. Based on 18<sup>th</sup> EPS, the Electricity Department anticipates the Power Demand to reach 406 MW in FY 2015-16, 426 MW in FY 2016-17 and 450 MW in FY 2017-18.

### **1.3 Filing of Petition**

The CED vide their memo no. SEE/OP/C1-2015-14/3857 dated November 18<sup>th</sup> 2014 sought extension in submission of MYT and Business Plan for the control period FY 2015-16 to FY 2017-18 till January 31<sup>st</sup>, 2015. The Commission granted extension up to December 19<sup>th</sup> 2014. CED further requested for extension in submission of the Business Plan and MYT vide their memo SEE/OP/C1-2015-14/136 dated January 19<sup>th</sup>, 2015 up to March 19<sup>th</sup>, 2015. The extension in time for submission of Petitions on Business Plan and MYT for the above control period was granted by the Commission up to February 15<sup>th</sup>, 2015 vide letter no 12/44/2014/JERC dated January 27<sup>th</sup>, 2015.

The CED, vide memo no. SEE/OP/C1-2015-210/323 dated February 14<sup>th</sup>, 2015 had filed the Petition on Business Plan for FY 2015-16 to FY 2017-18. The CED however requested for further extension for filing the MYT / ARR petition until March 5<sup>th</sup>, 2015 and later sought extension until March 11<sup>th</sup>, 2015.

The CED filed MYT and ARR petition with the Commission for the FY 2015-16 to FY 2017-18 vide memo no. SEE/OP/Comml.1-2015/210/600 dated March 10<sup>th</sup>, 2015.

### **1.4 Admission of Petitions and Technical Validation Session**

After initial scrutiny/analysis, the petition on Business Plan of the Control Period referred to in para 1.3 above was admitted on March 4<sup>th</sup>, 2015 and was marked as Petition no. 163/2015. Public notice was published in the newspapers on March 8<sup>th</sup> 2015. The details of public notice published by the Commission are in Table 1.3 below. The Petition on MYT for the said control period was admitted by the Commission on March 13<sup>th</sup>, 2015 and was marked as Petition no. 164/2015. The admission of both the Petitions is as per Annexure 1 of this Tariff Order.

Public notice was published in the newspapers for inviting suggestions and comments from stakeholders on the petition filed by CED. Preliminary data gaps were identified and intimated to the CED by the Commission vide letter no. 12/44/2014-JERC dated February 27<sup>th</sup>, 2015 and additional Comments vide letter no. 12/44/2014-JERC/1190 dated March 2<sup>nd</sup>, 2015 were asked from the CED. The technical validation session of the petition, for verification of information submitted along with the petition and subsequent replies/additional information submitted by the Petitioner, was done by JERC on March 24<sup>th</sup>, 2015. The Commission directed the Petitioner to file additional clarifications/ information as indicated during the course of the session.

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

The Order has referred at numerous places to various actions taken by the “Commission”. It may be mentioned for the sake of clarity, that the term “Commission”, except for the hearing and orders, denotes Secretariat of the Commission for carrying out the technical due diligence and validation of data of the petitions filed by the utilities, obtaining and analyzing information/clarifications received from the utilities and submitting relevant issues for consideration of the Commission.

For this purpose, the Commission’s Staff held discussions with the Petitioner/Petitioner’s representative, obtained information/clarifications wherever required and carried out technical validation with regard to the information provided by the Petitioner. The Commission’s staff interacted regularly with the Petitioner to seek clarifications and justification on various issues essential for the analysis of the MYT petition and the Business Plan. The Commission’s staff and the Petitioner also indicated key issues related to the petition, which included Power Purchase Cost, Estimated Sales and Revenue submitted to the Commission, etc.

The Commission’s staff conducted Technical validation session (TVS) with the Petitioner during which discrepancies in the MYT petition were pointed out and

additional information required by the Commission was intimated. The Petitioner submitted its replies, as shown below, in response to the queries raised by the Commission, which were taken into account during arriving at the ARR and the resultant tariff thereof of the Petitioner.

**Table 1.1: List of Interactions with the Petitioner**

<b>S.No.</b>	<b>Date</b>	<b>Action By</b>	<b>Subject</b>
1	14 Feb. 2015	CED	Submission of Petition on Business Plan for FY 2015-16 to FY 2017-18
2	4 Mar. 2015	JERC	Admission of the Business Plan petition
3	10 Mar. 2015	CED	Submission of MYT Petition for FY 2015-16 to FY 2017-18
4	13 Mar.2015	JERC	Admission of the MYT petition
5	27 Feb. 2015 2 Mar.2015	JERC	Deficiency note on Business Plan for FY 2015-16 to FY 2017-18
6	12 Mar.2015 14 Mar.2015	JERC	Deficiency note on MYT and ARR Petition for FY 2015-16 to FY 2017-18
7	20 Mar.2015	CED	Response to the clarifications sought by JERC on MYT
8	23 Mar. 2015	JERC	Reminder for expediting information as per deficiency notes
9	23 Mar. 2015	CED	Reply to Deficiency note on ARR and Tariff Petition for FY 2014-15
10	24 Mar. 2015	JERC	Technical Validation Session and additional clarifications
11	24 Mar. 2015	CED	Capex and Capitalization details as per directive 8
12	25 Mar. 2015	CED	Submission of Replies to issues post the Technical Validation Session
13	28 Mar. 2015	CED	CAG audit Report for FY 2013-14
14	31 Mar.2015	CED	Power Purchase Quantum and Cost

## **1.6 Public Hearing process**

The Commission directed the Petitioner to publish the summary of the ARR and Tariff proposal in the abridged form in the format to ensure public participation.

The public notices were published by the Petitioner for inviting for inviting objections/ suggestions from its stakeholders on the tariff petition:

**Table 1.2 : Details of public notice published by the Petitioner**

<b>S. No.</b>	<b>Date</b>	<b>Language</b>	<b>Name of Newspaper</b>
1	11 Mar 2015	English	The Tribune
2	11 Mar 2015	Hindi	Dainik Bhaskar
3	11 Mar 2015	Punjabi	Dainik Ajit Chandigarh
4	12 Mar 2015	English	The Tribune
5	12 Mar 2015	Hindi	Dainik Bhaskar
6	12 Mar 2015	Punjabi	Dainik Ajit Chandigarh
7	14 Mar 2015	English	The Tribune
8	14 Mar 2015	Punjabi	Dainik Ajit Chandigarh
9	15 Mar 2015	Hindi	Dainik Bhaskar

The Petitioner also uploaded the petition on its website ([www.chdengineering.gov.in](http://www.chdengineering.gov.in)) for inviting objections and suggestions on their petition.

Interested parties/stakeholders were requested to file their objections / suggestions on the petition to the utility with a copy to the Commission on or before March 13<sup>th</sup>, 2015. The copies of paper cuttings of the public notices are attached as **Annexure 2** to this order.

The Commission received 23 written objections/suggestions on the petition, by the last date for filing objections/suggestion i.e. March 18<sup>th</sup>, 2015. The Commission forwarded them to the Petitioner for communicating its reply to the objections, raised by the objectors. It was confirmed by the Commission at the beginning of the hearing that the objectors who had sent their objection by March 13<sup>th</sup>, 2015 (earlier date set for receiving the objections/ comments/ suggestions) had received the reply from the CED. Some of the objectors have received the replies to their objections, even though some objectors mentioned that they received the reply but will like to raise the objections again as they are not satisfied with the reply of the CED. The replies to the objectors who presented their objections during the Public Hearing were also sent after the hearing date by the Petitioner.

### **1.7 Notice for public hearing**

The Commission also published a public notice in the leading newspapers as given below giving due intimation to stakeholders, consumers, objectors and the public at large about the public hearing to be conducted by the Commission on March

18<sup>th</sup>, 2015 at the Institute of Engineers, Sector 19 A, Chandigarh from 10:00 AM for all consumers.

**Table 1.3 : Details of public notice published by Commission**

S. No.	Date	Language	Name of Newspaper
1	8 Mar 2015	English	The Tribune
2	8 Mar 2015	Hindi	Punjab Kesari
3	8 Mar 2015	Punjabi	Ajit
4	17 Mar 2015	English	The Tribune
5	17 Mar 2015	Hindi	Dainik Bhaskar
6	17 Mar 2015	Punjabi	Ajit

Copies of the public notice published by the Commission for intimation of public hearing are attached as **Annexure 3** to this order. In the public notice that appeared in the newspapers dated March 8<sup>th</sup>, 2015, time for receiving public comments was provided up to March 13<sup>th</sup>, 2015. In the repeat public notice that was inserted in the newspapers of March 17<sup>th</sup>, 2015, the time for receiving suggestions / comments was given up to the hearing time.

During the Public Hearing, each objector was provided with an opportunity to present his views on the petition filed by the Petitioner. All those present in the hearing, irrespective of whether they had given a written objection or not, were given equal opportunity to express their views. The list of objectors is attached at **Annexure 4** to this order. The list includes the objectors who gave their written objections; those who gave their written objections and presented before the Commission; and other stakeholders who did not give their written objection or prior intimation but presented before the Commission orally.

The Commission has examined the issues and concerns expressed by stakeholders. The major issues raised / indicated during the public hearing, along with the comments/replies of the utility and the views of the Commission thereon, have been summarized in section 3 of this order.

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## 2. APPROACH OF THE ORDER

### 2.1 Details of the Petition

This order covers the following in respect of Petitions from Electricity Department of Union Territory of Chandigarh

- i. Approval of Business Plan for FY 2015-16 to 2017-18
- ii. Determination of ARR and Tariff For FY 2015-16,
- iii. Review For FY 2014-15 and Truing Up For FY 2013-14 and Final Truing up FY 2011-12 and FY 2012-13.

### 2.2 Electricity Regulatory Process in Chandigarh

The Electricity Department of Union Territory of Chandigarh had submitted their petitions for Determination of Aggregate Revenue Requirement and Tariff to the Commission as under:

**Table 2.1: Details of Tariff Petitions so far submitted by the Petitioner**

Sl.	For FY	Filing date	Date Of Tariff Order	Tariff Order Effective date	Petition also Covered
1	2011-12	13 Jan. 2011	16 July 2011	01 April 2011	
2	2012-13	30 Dec. 2011	07 May 2012	01 May 2012	
3	2013-14	15 Feb. 2013	15 <sup>th</sup> April 2013	01 April 2013	
4	2014-15	21 Jan. 2014	11 April 2014 "Tariff Order delayed being Constrained by General Election Model Code of Conduct"	01 April 2014	Review of FY 2013-14 and Provisional Truing Up for FY 2011-12 and FY 2012-13
5	2015-16	10 March 2015	This order	This order	MYT for FY 2015-16 to FY 2017-18 and Business Plan for above years

### 2.3 Summary of the Petition

The Petitioner has prayed to the Commission for Final True up of ARRs for 2011-12 (Initial Petition 20/2011) and 2012-13 (initial Petition no. 100/2013). These ARRs were submitted for Final True up along with review of FY 2014-15 ARR (Initial



Petition no.126/2014) and the determination of ARR as well as Tariff for FY 2015-16.

**Table 2.2: Estimated Aggregate Revenue Requirement for FY 2013-14- Petitioner's Projection (Rs. Cr)**

S. No	Particulars	FY 2013-14	
		Approved	Estimated
1	Cost of power purchase for full year	558.81	591.91
2	Employee costs	56.54	50.21
3	Administration and general expenses	2.45	3.25
4	R&M expenses	10.11	9.50
5	Depreciation	2.73	21.81
6	Interest and finance charges	5.69	40.22
7	Interest on working capital	5.34	3.18
8	Interest on Security Deposit	1.29	2.63
9	Return on NFA/Equity	0.00	9.72
10	Provision for Bad Debt		7.05
11	Total Revenue Requirement	642.95	739.48

### 2.3.1 Review for FY 2014-15

The Petitioner's Summary of ARR for approval and Tariff Determination for FY 2014-15.

**Table 2.3 Aggregate Revenue Requirement for Fy 2014-15 (RE) - Petitioner's Submission (Rs. Cr)**

S. No	Particulars	FY 2014-15	
		Approved	Estimated
1	Cost of power purchase for full year	537.87	652.07
2	Employee costs	59.75	58.65
3	Administration and general expenses	2.58	10.81
4	R&M expenses	10.68	2.62
5	Depreciation	4.11	22.26
6	Interest and finance charges	7.92	38.67
7	Interest on working capital	2.09	3.66
8	Interest on Security Deposit	3.07	2.89
9	Return on Equity	1.58	9.33
10	Provision for Bad Debt	3.34	7.81
11	Total Revenue Requirement	633.00	808.77

**2.3.2 ARR's for approval and Tariff Determination for FY 2015-16 - Petitioner's Summary**

**Table 2.4: Aggregate Revenue Requirements - FY 2015-16- Petitioner's Projections**

		<b>(Rs. Cr)</b>
<b>S. No</b>	<b>Particulars</b>	<b>FY 2015-16</b>
1	Cost of power purchase for full year	719.99
2	Employee costs	60.45
3	Administration and general expenses	2.81
4	R&M expenses	11.35
5	Depreciation	22.72
6	Interest and finance charges	36.26
7	Interest on working capital	7.92
8	Interest on Security Deposit	3.15
9	Return on Equity	20.66
10	Provision for Bad Debt	8.76
11	Total Revenue Requirement	894.09
12	Less: Non-Tariff Income	17.82
<b>13</b>	<b>Net Revenue Requirement</b>	<b>876.27</b>

**2.1 Prayer:**

**2.4.1 In Business Plan Petition (163/2015) CED requested the Commission to:**

- a) Admit the Business plan of ED- Chandigarh for Control Period FY 2015-16 to FY 2017-18 in accordance with JERC (Multi Year Distribution) Tariff Regulations 2014 and approve the same.
- b) Pass any other Order, as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.
- c) Hon'ble Commission is requested to grant extension of time to file MYT petition by March 5<sup>th</sup>, 2015 keeping in view the submission made by CED's Consultant.
- d) Permit CED to make further submissions, additions and alterations to this Business Plan as may be necessary from time to time.
- e) Condone any inadvertent omission / errors / shortcomings / delay/ and permit CED to add / change / modify / alter this filing and make further submissions as may be required at a future date.

- f) Pass such further and other orders, as the Hon'ble authority may deem fit and proper keeping in view the facts and circumstances of the case.

**2.4.2 In MYT Tariff Petition (164/2015) CED requested the Commission to:**

- a) Condone the delay in filing the Petition by CED and admit this Petition.
- b) Examine the proposal submitted by the Petitioner for a favorable dispensation as detailed in the enclosed proposal;
- c) Consider the submissions and allow the True-Up for FY 2013-14, revised estimate for FY 2014-15 and approve Aggregate Revenue Requirement for Control Period FY 2015-16 to FY 2017-18 and Retail Tariff for CED for FY 2015-16;
- d) Approve Revenue Gap and create Regulatory Assets for the remaining gap after increase in tariff as detailed in the enclosed proposal.
- e) Pass suitable orders for implementation of the tariff proposals for the FY 2015-16 for making it applicable from April 1, 2015 onwards.
- f) Approve the terms and conditions of Tariff Schedule and various other matters as and the proposed changes included therein.
- g) Approve the proposed Tariff Schedule for various categories and Miscellaneous Charges as propose in enclosed proposal document.
- h) Condone any inadvertent omissions/ errors/ shortcomings and permit CED to add/change/ modify / alter this filing and make further submissions as may be required at a future date.
- i) Pass such orders as the Commission may deem fit and proper, keeping in view the facts and circumstances of the case;

**2.2 Commission's Perspective**

**2.5.1 Business Plan (Petition no. 163/2015)**

**Petition on Business Plan FY 2015-16 to FY 2017-18**

The Petitioner Chandigarh Electricity Department (CED) filed the petition for Approval of Business Plan for Control Period FY 2015-16 to FY 2017-18 on March 04<sup>th</sup>, 2015 under Regulation 12.1 of the MYT Regulation 2014. The Petitioner under Regulation 12.1 of the MYT Regulations 2014 was required to submit the Business

Plan by 30.09.2014. The Commission under Regulation 13.1 of the MYT Regulation 2014 was required to approve the Business Plan within 30 days from receipt of the complete business plan. Thereafter, as per Regulation 12.2 of the JERC MYT Regulations the Petitioner was required to submit MYT Petition for approval of ARR and Tariff for the Control Period of FY 2015-16 to 2017-18.

The Petitioner failed to submit the Business Plan on or before 30.09.2014, therefore, the Commission directed the Petitioner to submit the MYT Petition for approval of ARR and Tariff for the Control Period of FY 2015-16 to 2017-18.

The Petitioner submitted the Business Plan on March 04<sup>th</sup>, 2015 and the MYT Petition on 11.03.2015. The Commission analyzed the petitions. The petitions were found as per the Electricity Act, 2003 and Regulations framed there under. The petition for approval of Business Plan was admitted on March 04<sup>th</sup>, 2015. The MYT petition was admitted on 13.03.2015.

The Commission on March 13<sup>th</sup>, 2015 decided to club both the petitions for approval of Business Plan (Petition no. 163/2015) and approval of MYT ARR and Tariff (Petition no. 164/2015).

The Commission sent public hearing notices to all the concerned stakeholders and public at large by publication in three newspapers on two different dates as per Table 1.3.

The Commission held a joint Public Hearing of both the petitions for approval of Business Plan and approval of MYT ARR and Tariff on March 18<sup>th</sup>, 2015 at the Institute of Engineers, Sector 19 A, Chandigarh from 10:00 AM for all consumers. The Commission analyzed the petitions, representations of the stakeholders and the response received from the Petitioner. The Commission observed that as per Regulation 22 (c) of the JERC MYT Regulations the Petitioner is required to submit detailed supporting documents with the petition for approval of Business Plan. The supporting documents should include purpose of capital investment, capital structure, capitalization schedule, financing plan and cost benefit analysis. The

Commission found that the Business Plan was not accompanied with these supporting documents.

The Commission also observed that some of the stakeholders in the Public Hearing represented that the petition for approval of the Business Plan should be filed by 30 September of the year prior to the commencement of the control period and after approval of the Business Plan the licensee should file the MYT petition. Therefore, the approval of the business plan is a prerequisite for filing the MYT Petition. But the Petitioner did not file the petition for approval of Business Plan in time and filed the petition for the MYT before approval of the Business Plan.

Regulation 12.11 of the JERC MYT Regulations provides that in case of delay / non-submission of the application for approval of Business Plan and application of Determination of Tariff, as the case may be , additional information, the Commission may initiate Suo-moto proceedings mandating the filing of the petitions and if the Petitioner fails to file the application the Commission may on its own decide tariff on the basis of previous year tariff details after incorporating suitable adjustments.

Regulation 9 of the JERC MYT Regulations provides that some of the controllable parameters determining tariff are linked with capital investment plan of the licensee. Therefore, approval of ARR on MYT framework based on the capital investment plan submitted by the licensee without the supporting documents may affect the retail consumers adversely.

**Regulation 38 of the JERC MYT Regulations runs as under**

*“If any difficulty arises in giving effect to the provisions of these Regulations, the Commission may, by general or specific order, make such provisions not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulty.”*

In the light of the above facts and circumstances the Commission is of the opinion that it is not possible to approve the Business Plan for the control period FY 2015-16 to FY 2017-18 and consequently it is also not possible to approve MYT ARR and Tariff for the control period FY 2015-16 to FY 2017-18. Hence the Commission has decided not to implement the JERC (Multi Year Distribution Tariff) Regulations,

2014 as provided under Regulation 38 for the control period FY 2015-16 to FY 2017-18 and proceeds to approve ARR and determine tariff for FY 2015-16 only under JERC (Terms and Condition for determination of Tariff ) Regulations, 2009.

### **2.5.2 ARR and Tariff for FY 2015-16**

The Commission, while determining the tariff is guided by the principles contained in Section 61 of the Act, namely

- a) The principles and methodologies specified by the Central Commission for determination of the tariff applicable to generating companies and transmission licensees;
- b) The generation, transmission, distribution and supply of electricity are conducted on commercial principles;
- c) The factors which would encourage competition, efficiency, economical use of the resources, good performance and optimum investments;
- d) Safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner;
- e) The principles rewarding efficiency in performance;
- f) Multi-year tariff principles;
- g) That the tariff progressively reflects the cost of supply of electricity and also, reduces and eliminates cross-subsidies within the period to be specified by the Appropriate Commission;
- h) The promotion of co-generation and generation of electricity from renewable sources of energy;
- i) The National Electricity Policy and Tariff Policy;
- j) Renewable purchase obligations

**2.5.3 Approach for final Truing up of FY 2011-12, FY 2012-13 and Provisional FY 2013-14**

The Petitioner in its petition has requested for provisional true up for FY 2011-12 based on the Tariff Order for FY 2012-13 issued on May 7<sup>th</sup> 2012 by the Hon'ble Commission wherein it had undertaken a review of ARR for FY 2011-12 as per the actual information submitted by CED for 10 months. Further, the Petitioner has also requested for provisional true up of ARR for FY 2012-13 based on the Tariff Order for FY 2013-14 issued on April 15<sup>th</sup> 2013 by the Commission wherein it had undertaken review of FY 2012-13 as per the actual information submitted by CED for 8 months. Further, on February 15<sup>th</sup> 2013 while submitting the Petition for ARR and Tariff, the Petitioner stated that the annual accounts for FY 2011-12 and FY 2012-13 are under audit by Indian Audit and Accounts Department, Office of Principal Director of Audit (Central), Chandigarh and certificate of audit is still awaited. Therefore, CED had filed for final true up for FY 2011-12 and FY 2012-13 in this Petition along with Provisional True up of ARR for FY 2013-14. The annual /proforma accounts for the period FY 2011-12 and FY 2012-13 have also been submitted to the Commission along with this petition for the purpose of final / provisional true up as requested above. The accounts audited on Commercial Principles have not been submitted by the Petitioner as these are still not ready.

The Petitioner in its petition has requested for a provisional/ final true up that was determined earlier by the Commission. The truing up is to be carried out as per the provisions of Regulation 8 of JERC Tariff Regulations, 2009. As per Regulation 8 of JERC Tariff Regulations, 2009:

*‘The Commission shall undertake a review along with the next Tariff Order of the expenses and revenues approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called ‘Review’.*

*After audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per*

*the audited accounts. This exercise with reference to audited accounts shall be called 'Truing Up'.*

Commission in the Tariff order dated April 11<sup>th</sup> 2014 mentioned as under:

**Quote**

*"As the audited accounts based on commercial accounting principles are still awaited, Commission is of view it would be inappropriate to consider provisional true up of FY 2011-12 and FY 2012-13.*

*The Commission shall, therefore undertake the True-up for FY 2011-12 and FY 2012-13 once the audited accounts prepared on the Commercial Principles are made available to the Commission by CED.*

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*The Commission would like to emphasize that it has been repeatedly directing the Petitioner to prepare accounts on commercial principles since issuance of first Tariff Order on July 16<sup>th</sup> 2011. While, the Commission acknowledges that the efforts have now been initiated by the Petitioner for preparation of accounts on commercial principles, considerable time has been lost due to delay in start of actions in this context by the Petitioner.*

*However, if the Petitioner had adhered to timelines as per the the directions issued in various orders, the audited accounts (prepared on commercial principles) would have been available by now for True up. The Commission is of the view that the delay, which is on account of Petitioner, cannot be burdened on the consumers and therefore no carrying cost will allowed for gap for FY 2011-12 and FY 2012-13 (if any, after true-up is undertaken once the audited accounts on commercial principles are available)."*

**Unquote**



The Commission does not find any change in status on submission of Licensee's Accounts on Commercial Principles. Thus, the Commission is not able to accept the Petitioner's Prayer for Final True up for FY 2011-12 and FY 2012-13

The exercise in respect of True up for FY 2013-14 is also not initiated by the Commission on the same grounds.

The Petitioner having informed the Commission on March 27<sup>th</sup> 2015, that CED has already issued a Letter of Intent for undertaking the Auditing of CED records on Commercial Principles, the Commission directs the Petitioner to submit the Petition for True Up with audit records.

#### **2.5.4 Approach for Review of ARR for FY 2014-15**

The Petitioner in its petition has requested for a revision of the ARR for FY 2014-15 which was determined earlier by the Commission in its ARR order dated April 14<sup>th</sup> 2014. The review of ARR for FY 2014-15 is to be carried out as per the provisions of regulation 8 of JERC Tariff Regulations, 2009. As per Regulation 8 of JERC Tariff Regulations, 2009:

*'The Commission shall undertake a review along with the next Tariff Order of the expenses and revenues approved by the Commission in the Tariff Order. While doing so, the Commission shall consider variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for the relevant year and permit necessary adjustments/ changes in case such variations are for adequate and justifiable reasons. Such an exercise shall be called 'Review'.*

*After audited accounts of a year are made available, the Commission shall undertake similar exercise as above with reference to the final actual figures as per the audited accounts. This exercise with reference to audited accounts shall be called 'Truing Up'.*

*The Truing Up for any year will ordinarily not be considered after more than one year of 'Review'.*

*The revenue gap of the ensuing year shall be adjusted as a result of review and truing up exercises.*

*While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings.*

*For any revision in approvals, the licensee would be required to satisfy the Commission that the revision is necessary due to conditions beyond its control.*

*In case additional supply is required to be made to any particular category, the licensee may, any time during the year make an application to the Commission for its approval. The application will demonstrate the need for such change of consumer mix and additional supply of power and also indicate the manner in which the licensee proposes to meet the cost for such change of consumer mix and additional supply of power.*

*The Commission may consider granting approval to such proposals provided the cost of additional supply is ordinarily met by the beneficiary category.*

In view of the above, the Commission has reviewed the variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for FY 2014-15 submitted by the Petitioner and permitted necessary adjustments/ changes in cases where variations are for reasonable and justifiable reasons.

**The detailed analysis and treatment of each component is provided in Chapter 5 (Review of ARR for FY 2014-15) of this Order.**

#### **2.5.5 Approach for Determination of ARR and Retail Tariff for FY 2015-16**

The Petitioner has submitted the ARR and tariff petition for FY 2015-16 along with review petition for FY 2014-15 and final truing up for FY 2011-12 and FY 2012-13 as well as provisional truing up FY 2013-14.

In this regard, various provisions of the JERC's Tariff Regulations 2009 pertaining to Distribution business of the integrated utility are relevant and the Commission is guided by the principles contained in Section 61 of the Act among other things to

examine the Sales forecast, Power purchase quantum and estimates of various expenses and revenue including other income.

The Commission has considered the petition as per the JERC regulations for (Determination of Tariff), 2009. The Commission had given repeated directions in the Tariff Orders dated July 16<sup>th</sup> 2011, May 7<sup>th</sup> 2012, April 15<sup>th</sup> 2013 and April 11<sup>th</sup> 2014 to get the accounts prepared on commercial principles and get them audited. However the Petitioner during the Commission's subsequent hearing/data validation had expressed that since CED is operating as a department within the Govt. of India, currently the system of account keeping is on cash receipt and expense basis. As per the accounting principles the revenue and expenditure to be considered for a financial year should be on accrual basis of accounting, therefore, CED has considered the accrual methodology for computing the actual revenue and expenditure for the years from FY 2013-14 and 2014-15 and submitted the same in the Petition. Further, CAG has audited the pro-forma accounts for FY 2013-14. However, in absence of audited accounts prepared on commercial principles, the Commission has considered the figures approved in the Order dated April 11<sup>th</sup> 2014 for FY 2014-15 and pre-actuals for FY 2013-14 form the basis for projection of income and expenditure for FY 2015-16.

The detailed analysis and treatment of each component is provided in Chapter 6 (Determination of Aggregate Revenue Requirement for FY 2015-16) of this Order.

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### 3. SUMMARY OF OBJECTIONS RAISED, RESPONSE FROM THE PETITIONER AND COMMISSION'S VIEWS

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#### 3.1 Public response to the Petition

On admitting the Business Plan for Control Period FY 2015-16 to FY 2017-18 and the ARR and Tariff Petition for the 1<sup>st</sup> year of the above Control Period for the FY 2015-16, the Commission directed the Petitioner to make copies of the petition available to the Public, upload the petition on the Website and also publish in the newspapers in abridged form in the given format duly inviting, comments/objections from the public as per provision of the JERC (Conduct of Business) Regulations 2009 as amended.

#### 3.2 Public Hearing

A public hearing was held at Chandigarh on March 18<sup>th</sup> 2015 at the hall of Institute of Engineers, Sector 19 A, Chandigarh from 10.00 AM for all consumers. During the public hearing, those who submitted the objections in writing presented their Objections/Suggestions in person before the Commission. Other participants from the general public, who did not submit written objections earlier, were also given an equal opportunity to offer their views/suggestions in respect to the ARR and tariff proposal for FY 2015-16 of the CED. The list of objectors is attached as **Annexure 4** to this order. At the beginning of the hearing, the Commission had ascertained from the stakeholders that those who filed the objection before the initial date of March 13<sup>th</sup> 2015, had received the replies to their written objections. The date of receipt of Comments/ Suggestions was extended up to the date of hearing in the Commission's Public notice in the newspapers dated March 17<sup>th</sup>, 2015. Some of them said they had received the reply from the Electricity Department but they were not satisfied with the reply and accordingly wished to present their comments /suggestions before the Commission again. They were provided the opportunity to present their suggestions again. Those stakeholders who did not give prior written objections/suggestions and

expressed their views, objections, suggestions during the hearing were replied to by the Petitioner after the hearing.

### **3.3 Objections/Suggestions , response of the Petitioner and Commission's comments**

**The Commission is appreciative of the efforts by various stakeholders for providing suggestions / comments / observations to make the Electricity Distribution Sector responsive and efficient.**

## **PART 1: General Issues and Comments**

### **3.3.1 General Comments and Suggestions**

These are some common suggestions by various individuals or groups, which are not listed along with the suggestions or the comments by the respective individuals or groups:

- i. **Auditing on Commercial Accounting Principles not done, though JERC has been giving directive for many years.**

#### **Petitioner's Response**

##### **Quote**

*"It is intimated that as per terms and conditions for determination of Tariff Regulations 2009/MYT Regulation 2014 notified by JERC, every distribution licensee has to submit its Annual Revenue Requirement (ARR) to regulatory Commission for determination of tariff. Accordingly, Chandigarh Electricity Department (CED) has submitted its Business Plan and MYT petition and tariff proposal for FY 2015-16 and proposed the tariff hike accordingly.*

*It is further intimated that on the petition filed by Department, Hon'ble JERC has accorded the approval to the department to submit the accounts on the commercial accounting principle by Sept.30<sup>th</sup>,2015. To comply with above cited JERC directive, tendering process to appoint consultant to prepare accounts on commercial accounting principle and fixed asset register is completed and Letter of intent to successful bidder has been issued. It is wrong to suggest that CED's accounts are not audited. Each year's account on Cash Basis is duly audited by*

*CAG but as per JERC Regulation, CED's accounts should be on Accrual Basis. CED being Govt. Deptt. Of Chandigarh Administration, accounts on accrual basis are not being maintained in Chandigarh. However, to comply with JERC Regulation, CED has appointed consultant to convert cash basis accounts to accrual basis accounts."*

**Unquote**

**Commission's View:**

The Commission has noted that Letter of Intent for preparation of accounts on commercial accounting principle and Fixed Asset Register is issued. The Commission desires the completion of the task by Sept 30<sup>th</sup>, 2015, the deadline already fixed by the Commission, for the CED to complete the activities.

**ii. Energy Audit is not being done**

**Petitioner's Response**

**Quote**

*"In this regard, as submitted in MYT petition, CED can conduct the energy audit only after the implementation of R-APDRP because it is software related. For this we need to have a Data Centre (DC) and Data Recover Centre (DRC) which costs approx. 100 Crore. Govt. of India has decided that UT., Chandigarh should share DC and DRC with neighboring States. Firstly, UT., Chandigarh was clubbed with Punjab; however, R-APDRP of Punjab could not start. Therefore, now matter has been referred to PFC/MOP for clubbing with utility of Haryana and approval is awaited. Therefore, the circumstances are beyond control of UT., Chandigarh. However, sincere and continuous efforts are being made and matter is being perused with Power Finance Corporation/ MoP."*

**Unquote**

**Commission's View:**

The R-APDRP and its link to the Energy audit are noted by the Commission. The economic benefit of Energy Audit is not required to be stressed by the Commission. The Commission directs the CED to vigorously follow up approval of APDS/R-APDRP

with the concerned agencies by involving the higher management of the UT administration.

**iii. T&D Losses are high**

**Petitioner's Response**

**Quote**

*"It is pertinent to mention that since UT Chandigarh has not been provided any Inter State Transmission Point within the periphery of UT Chandigarh as such additional approx 3% notional interstate losses are being borne by CED. Further, around 99% of the consumers in UT Chandigarh are at LT level (440 Volt) which has an adverse effect on the loss reduction. However, CED is making all efforts for reducing its T&D losses by undertaking various measures.*

*In order to ensure for system as well as performance improvement, CED has submitted Business Plan for control period 2015-18 as well as MYT petition based on business plan to Commission which includes long term planning for capital investment plan etc. which shall take care for all possible avenue for improvements such as system improvement and reduction of losses etc whose benefits shall reach to the electricity consumers of UT Chandigarh.*

*It is to mention here that in the Suo-Moto Petition No. 76 of 2015, CED is regularly submitting the requisite information regarding AT&C Loss Reduction Programme to the Hon'ble Commission. It is to mention here that CED has shown remarkable improvement in T&D losses from FY 2012-13 as 18.8% to FY 2014-15 as 15% (approx.)"*

**Unquote**

**Commission's View:**

The Commission agrees that T&D loss reduction at LT level is difficult but not impossible. The Commission directs the CED to involve organizations to work out T&D loss reduction based on sharing the economic gain and first focus on HT sector followed up by LT sector. The T&D loss targets directed by the Commission vide order in the suo- moto petition 76/2012 dated May 5<sup>th</sup> 2014 are required to be achieved by the Petitioner as under:

Sl. No.	Name of Licensee	Existing	Targeted		
		2013-14	2014-15	2015-16	2016-17
1	ED- Chandigarh	15.50%	15%	14.50%	14%

The Petitioner is directed to submit to a proposal on loss reduction to the Commission to analyze the Techno Economic benefits of the proposal in achieving T&D loss reduction to meet the above targets.

iv. **Energy Efficiency and Energy Saving measures not being deployed by CED.**

**Petitioner’s Response**

**Quote**

*“CED is committed to compliance of various regulatory measures including DSM for improving energy efficient street lighting system in UT Chandigarh, which the basic groundwork like taking up the matter with TERI has already been initiated and the same can be quantified after getting the approval from competent authority of Chandigarh Administration.*

*CED has procured energy efficient transformers (4 Star rating) of 200KVA capacity and are being installed at various load centers with The capacitor Banks had already been installed at various Grid Sub-stations having capacity of 66KV/33KV to improve the power factor of the distribution network.”*

**Unquote**

**Commission’s View:**

The Commission has noted about the study on Street Lights being conducted by TERI. Demand Side Management (DSM) initiative has been approved by the Commission for one of the constituent territory of the Commission, which has been replicated by the other states. The CED should look into the same and submit a proposal for its approval by the Commission.

Switching off streetlights and park lights during day light hours needs no study for energy saving. These measures should be enforced urgently by deploying the light sensor switches, and till then manually.



A detailed action plan along with timelines should be to the Commission by June 30<sup>th</sup>, 2015.

**v. CED is not adequately staffed**

**Petitioner's Response**

**Quote**

*"In this regard, it is intimated that on the basis of approval of manpower study by Hon'ble JERC, the complete case for the approval of Govt. of India had been sent to higher office and is under process. Such posts shall be filled up after the approval of Govt. of India. "*

**Unquote**

**Commission's View:**

After the public hearing on March 18<sup>th</sup>, 2015 the Commission has already written to the CED's higher management for immediately implementing the manpower proposal of the CED approved by the Commission. The CED is required to follow up its implementation and keep the Commission informed of any impediments coming in the way of its implementation.

**vi. A lot of work / services are being offloaded at higher costs.**

**Petitioner's Response**

**Quote**

*"CED has no manpower/specialization to carry 66 KV works. The Department got the 66 KV works done from PGCIL/NTPC/BBMB as per provisions of GFR. 220 KV Sub Station is vital infrastructure feeding more than 50% power to Chandigarh and is being maintained by CTU which is maintaining all asset of 220 KV in India as CTU. PGCIL, a Govt. of India undertaking is specialized in this field. However, to explore the potential, tender for O&M of 220 KV Sub Station has been floated.*

*Further, it is intimated that all maintenance work are carried out through e-tendering portal/e-quotation portal/applicable rules for fair and wider publicity and at reasonable cost.”*

**Unquote**

**Commission’s View:**

The Commission takes note of the Petitioner’s submission.

**vii. Standards of Performance (SoP) are poor due to irregular maintenance and lack of Inventory**

**Petitioner’s Response**

**Quote**

*“Routine and preventive maintenance of the distribution network is a regular exercise which CED does. The Repairs and Maintenance Expenses as proposed in the ARR petition go towards the day-to-day upkeep of the network of the licensee and form an integral part of the utilities efforts towards reliable and quality power supply and also in the reduction of losses in the system to meet up with the Standard of performance Regulations provided by Hon’ble Commission.”*

**Unquote**

**Commission’s View:**

There is a scope of improvement by maintaining adequate inventory of spares and material required for improving SoP.

**viii. Safety of Manpower is not considered an important parameter**

**Petitioner’s Response**

**Quote**

*“Safety of manpower is utmost important for electricity department. For this necessary tools and tackles are provided to the staff from time to time. There are nine Boom-Ladder vehicles, which have already been provided to nine number subdivisions out of ten. Further, the procurement for one no. boom ladder is also under process to enhance the safety precautions.*

*For provision of safety devices, modern equipment etc. has been made in the Business Plan at Sr. No. 6 under table- 17 (Page 23) of the CED for which expenditure to the tune of Rs 245 Lakhs has been planned for the control period 2015-16 to 2017-18.”*

**Unquote**

**Commission’s View:**

The Commission lays a lot of stress on the safety of Personnel by providing them with good quality protective equipment for safety of men at work and updating their skills. The CED should ensure that the subcontractors’ personnel are adequately skilled and are provided requisite safety equipments.

**ix. Safety Equipment, Tools are not adequate**

**Petitioner’s Response**

**Quote**

*“For provision of safety devices, modern equipment etc. has been made in the Business Plan at Sr. No. 6 under table- 17 (Page 23) of the CED for which expenditure to the tune of Rs 245 Lakhs has been planned for the control period 2015-16 to 2017-18.”*

**Unquote**

**Commission’s View:**

The Commission has noted the response of the CED. The CED is directed to keep the Commission informed on various Capital investments and tools including Safely Harness, telescopic ladders, helmets with head light etc. The subcontractors shall also provide safety harness and tools to their personnel.

**x. The interest on security deposit/ACD has not been paid to all**

**Petitioner’s Response**

**Quote**

*“Regarding ACD and interest thereon, it is intimated that the department is following the clause 6.10 (3) of JERC Electricity Supply Code Regulation 2010 as amended from time to time and paying interest to consumers on ACD deposited by them with CED as*

*per the clause 6.10 (8) of JERC Electricity Supply Code Regulation 2010 i.e. bank rate notified by the Reserve Bank of India.*

*CED by its sincere efforts has paid maximum consumers the interest on consumer security deposit as per various orders of JERC. However, as mentioned in MYT petition, there are still few consumers left with non-availability of date of connection to whom to such interest is required to be paid. The efforts are still on and they will be given interest by June 2015 w.e.f. 2003."*

**Unquote**

**Commission's View:**

The Commission has taken note of this submission. The Petitioner shall intimate the status of "Payment of Interest" to the remaining Consumers, who have not been paid the interest so far, to the Commission by July 1<sup>st</sup>, 2015.

**xi. Theft of Power is high**

**Petitioner's Response**

**Quote**

*"The CED has special cell called "Enforcement Cell" which raids the premises based on inputs and also undertake other vigilance activities like review of loads, checking of by-passing and tampering of meters, checking the accuracy of electricity meter. Moreover, at sub-division level also, the routine checking of premises is also going on to take care of any theft/regularities. To avoid kundi connections, electricity connections have been provided to slum dwellers/ unauthorized colonies/ residents outside lal dora to plug revenue leakage and for safety of human beings from electrocution etc. Many consumers who found guilty are penalized by the Department as per notifications issued by the JERC/Electricity Act, 2003. Further, CED is submitting quarterly report on the working of enforcement cell to Hon'ble JERC. With the help of police, regular kundi connection removal operations are also being carried out. It is mention here that through Enforcement Wing of CED, the amount collected for theft cases/metering/ irregularities in the first and second quarter of Financial Year 2014-15 is Rs. 11,58,157/- and Rs. 3,65,847/- respectively."*

**Unquote**

**Commission's View:**

The Commission takes note of this submission.

**3.3.2 Suggestions from Individual Consumers**

**1 Shri Ravinder Singh**

- i. Improvement of performance by CED
- ii. Do not put financial burden on the poor small shopkeepers. Instead Increase tariff for high consuming customers.

**Petitioner's Response**

**Quote**

“

- i. All the measures relating to improvement of the performance has been mentioned in the detailed business plan for the control period 2015-18. The CED shall work on all the aspects as contained in the business plan*
- ii. The tariff has been proposed keeping in view all the categories of the consumers.”*

**Unquote**

**Commission's View:**

The Commission takes note of this submission.

**2 Shri VB Khanna**

- i. CGRF not consumer friendly,
- ii. CED to achieve higher SoP,
- iii. Consumers above 100 kW are being asked for the arrange material at their cost, Connection applied for not granted for two years.

**Petitioner's Response**

**Quote**

“

- i. In this regard, it is intimated that CED is regulated by the JERC Regulations and bound to follow the CGRF orders.*

*ii.& iii. In this regard, it is intimated that CED is regulated by the JERC Regulations and bound to follow the JERC Electricity Supply Code regulation 2010 and Standard of Performance regulation as amended from time to time.”*

**Unquote**

**Commission’s View:**

The Commission takes note of the submission. The Commission keeps the stakeholders informed of the CGRF contact details. Wherever the Consumer feels the supply code is not being followed up by CED should be ascertained from the Stakeholder and kept informed about what the CED has been doing in this regard.

**3 Shri Ajay Jagga**

- i. Cost of Hard Copy of Petition is high*
- ii. Copy of the petition be made available at all the subdivisions.*
- iii. Free electricity at Crematoriums*
- iv. Introduction of complaint Registration through Toll Free number for registration of consumer grievances.*
- v. Facility of Payment Rebate is unknown.*
- vi. Data of ARR and MYT not trustworthy.*

**Petitioner’s Response**

**Quote**

- “
- i. The cost of Business Plan and MYT petition was kept at Rs 300/- as the quality of electricity department cannot be compared with ordinary photocopy shop and the same has arrived in line with the cost of previous year’s petition after including cost of time value etc. However, the same can be downloaded free of cost from the website of the department [www.chdengeering.gov.in](http://www.chdengeering.gov.in).*
  - ii. The copies of petition were available at Sector 9 only in order to address any possible query on petition by the public as OP sub-divisions do not have expertise in addressing the MYT related issues.*

iii. *In this regard, it is intimated that the present **electricity tariff in UT Chandigarh is very competitive** in comparison to its neighboring states and hence, the option of subsidy is not practical. CED is adhering to the regulations framed by JERC. CED has no power to raise or lower or total waiver of the tariff as the power to raise/ lower/ total waiver of the tariff vest with JERC as per section 62 of EA 2003.*

*However, these are already under Domestic Category and maintained by Municipal Corporation, Chandigarh.*

iv. *In this regard, it is intimated that for registration of electricity complaints, 24x7 Citizen Facilitation Centre (CFC) is already operational since 2008 having telephone no. 0172-4639999 with 6 lines and this number is mentioned on each electricity bill. Besides, above every electricity OP sub-division has been provided with complaint center number, which is also mentioned on each electricity bill. Further, every citizen of UT Chandigarh can lodge complaints through website of the Chandigarh Administration **www.chandigarh.nic.in**. As far as timeline for repairing of fault is concerned, it is already notified by JERC (Standard of performance) Regulation and the same is available on the website of the Commission.*

v. *In this regard, it is intimated that in order to reflect the necessary information on the electricity bill in light of the new developments like interest on security deposit, solar power net metering, prompt payment rebate etc., existing electricity bill is under modification.*

vi. *During the technical validation session held with Hon'ble JERC, CED is required to provide all necessary data, CAG audit certificate etc. to the Commission for verification and validation."*

**Unquote**

**Commission's View:**

The Petitioner's response to the objector's issues as per serial i,ii,and iv above are noted.

Regarding serial (iii) all the places where last rites are performed are now covered under the Domestic Category. The Electricity Act 2003 does not allow free electricity for any category of Consumer.

The CED should appraise various stakeholders regarding facility of payment rebate as at serial (v) by the objector.

Regarding ARR, MYT and various other documents the Commission does a prudence check.

#### **4 Shri Ramesh Kumar Arora**

CED to find ways to gainfully use the Security Deposit ( a suggestion).

##### **Petitioner's Response**

###### **Quote**

*"In this regard, it is intimated that as per JERC (Multi Year Distribution Tariff) Regulation 2014, every distribution licensee has to submit its Annual Revenue Requirement (ARR) to regulatory Commission for determination of tariff. Accordingly, Chandigarh Electricity Department (CED) has submitted its Business Plan and MYT petition and tariff proposal for FY 2015-16 on the basis of the guidelines/ clauses of referred regulation and followed the same for the treatment of consumer security deposit as defined in regulation. "*

###### **Unquote**

##### **Commission's View:**

The CED is presently constrained in this regard till the CED is corporatized.

#### **5 Shri Ajit Singh Ahuja**

Regarding ACD and interest

##### **Petitioner's Response**

###### **Quote**

*"In this regard, it is intimated that as per terms and conditions for determination of tariff regulations 2009 / MYT Regulation 2014 notified by JERC, every distribution licensee has to submit its Annual Revenue Requirement (ARR) to regulatory Commission for determination of tariff. Accordingly, Chandigarh Electricity*



*Department (CED) has submitted its Business Plan and MYT petition and tariff proposal for FY 2015-16 and proposed the tariff hike accordingly.*

*Further, on the petition filed by Department, Hon'ble JERC has accorded the approval to the department to submit the accounts on the commercial accounting principle by 30.9.2015. To comply with above cited JERC directive, tendering process to appoint consultant to prepare accounts on commercial accounting principle and fixed asset register is completed and letter of Intent to successful bidder has been issued.*

*Regarding ACD and interest thereon, it is intimated that the department is following the clause 6.10 (3) of JERC Electricity Supply Code Regulation 2010 as amended from time to time and paying interest to consumers on ACD deposited by them with CED as per the clause 6.10 (8) of JERC Electricity Supply Code Regulation 2010 i.e. bank rate notified by the Reserve Bank of India."*

**Unquote**

**Commission's View:**

The Commission takes note of this submission.

**3.3.3 Suggestions from Organizations**

**1 Crest**

- i. Solar Power Generated and fed to the Grid, Payments not received from CED.

**Petitioner's Response**

**Quote**

*"In this regard, it is intimated that the terms and conditions/guidelines for solar PV roof top is being prepared as per the regulations notified by the Hon'ble JERC which may be completed by April 15<sup>th</sup>, 2015. The commercial arrangement for metering and billing shall be carried out accordingly please. "*

**Unquote**

**Commission's View:**

The CED may note that the Solar Tariff was approved by the Commission vide Tariff Petition 133/2014 of CREST.

The Solar Tariff decided under Petition no. 133/2014 is not affected by the JERC Solar Regulations - 2015 as per Regulation 7 d.

**Quote**

***"7. Control Period.***

*a. These Regulations shall remain .....*

*.....*

*d. Notwithstanding anything contained in these Regulations, the parameters fixed for Solar tariff determination in respect of grid connected Solar power projects that have started generating solar power prior to notification of these Regulations for which approval of the Distribution Licensee was taken or where the project specific solar tariff was determined by the Commission remain unchanged. The provisions of these regulations having any impact on previously approved tariff shall not be considered."*

**Unquote**

**Commission's View:**

The CED needs to have a positive approach for the growth of Solar Project Development in Chandigarh, which has no other Power Generation Capacity of its own.

**2 Delta Power- Shri Vikram Hans**

- i CED to work on energy efficiency.
- ii Minimum Charges to be reviewed in view of Solar Power Feeding to the Grid.

**Petitioner's Response**

**Quote**

*"In this regard, it is intimated that applicant has requested to reduce minimum charges. However, in Chandigarh only fixed charges are applicable except domestic*

*supply. In view of the facts submitted, Hon'ble Commission is fully competent to decide the matter in question.*

*Hence, CED requests Hon'ble JERC to decide the matter in this regard."*

**Unquote**

**Commission's View:**

Concept of fixed charges is to enable the Distribution Licensee to gradually recover the investments made in the distribution of Electricity, followed by maintenance and then replacements / up-gradation as and when necessary to provide a better Standard of Performance.

**3.3.4 Common suggestions from some Organizations**

**1 Carmel Convent School, St. Annes Convent School , Sacred Heart Sr. Sec. School, St. John's High School**

- i. We are a minority educational institution providing fee concessions to the needy.*
- ii. Students are admitted in our minority school to whom totally free education is being provided.*
- iii. We are providing free uniforms and books to poor students since inception.*
- iv. If electricity charges are increased once again, the full burden of the school will increase.*

**Petitioner's Response**

**Quote**

*"In this regard, it is intimated that in view of the facts submitted by your religious unaided minority educational institute in above referred letter, Hon'ble Commission is fully competent under Electricity Act 2003 to decide the appropriate tariff category according to the purpose for which the supply of electricity is required.*

*Hence, CED requests Hon'ble JERC to decide the matter."*

**Unquote**

**Commission's View:**

The Commission has considered the request and orders that such Institutions under Domestic Category subject to qualifying requirements laid down in the Tariff Schedules.

**2 UT Power men Union Shri Gopal Datt Joshi –**

Strengthening of the CED with regular staff instead of Contract Workers and include the Drawing office Cadre in CED employees profile.

**Petitioner's Response**

**Quote**

*"In this regard, it is intimated that for filling up of 42 posts of LDCs as per the approval of Hon'ble JERC, CED had sent the complete case to Director-Higher Education, UT Chandigarh as per direction of competent authority of Chandigarh Administration, being nodal officer for the appointment of LDC cadre as a whole in Chandigarh Administration. It is gathered that draft advertisement for filling up these posts had been prepared by Director-Higher Education and is under approval of the competent authority. These posts shall be filled up immediately after the selection by the Director-Higher Education.*

*Further, it is intimated that on the basis of approval of manpower study by Hon'ble JERC, the complete case for the approval of Govt of India had been sent to higher office and is under process. "*

**Unquote**

**Commission's View:**

After the public hearing on March 18<sup>th</sup>, 2015 the Commission has already written to the CED's higher management for immediate implementation of the manpower plan approved by the Commission. The CED is required to

follow up its implementation and keep the Commission informed of any impediments coming in the way of its implementation.

Regarding utilizing Draftsman's cadre or any other cadre, the CED is required to utilize their services by training them in Project Management of various Capital Investment Schemes, Project Estimation, Bill of Materials and training them on Primavera and such tools to effectively utilize their services for productive use.

### **3.3.5 Associations, Mandals, Forums, Federations, Awareness Group**

#### **1 Chandigarh Defence Colony Welfare Association ( Regd.)**

- i 11KV Areal Bunched Cables, CED to carry out proper maintenance and frequent supervision
- ii Fixed Charges were done away with previously. Consumers do not volunteer for increased load, by Self declaration CED is losing.
- iii No MDI meters installed, max. demand is not registered.
- iv Connected load is higher than max demand; fixed charges should not be there.
- v If Fixed charges are not exempted SPD consumers should also be included or subsidy be considered from UT funds.
- vi FPPCA should be paid by SPD category if not exempted.
- vii Consumer Security Deposit should be as per para 6.10 of Supply Code.
- viii Revised ACD from those who have given acceptance for prepaid meters.
- ix Interest on Security Deposit 2003-2011 not paid. CED say that records are not available. Time limit should be fixed.
- x Supply Code not fully implemented by CED. Service Equipment Charges not indicated in the Tariff should not be Charged.
- xi Service Charges for Fuse Replacement. Up to meter point by CED , beyond meter point by the Consumer. Any such charges if are required to be levied should be advertised in the print media.
- xii What measures are being adopted to curb theft, how many FIRs are filed and how much recovery made.

- xiii Uploading of Petition delayed by CED until March 11<sup>th</sup>, 2015, Comments should be received up to March 15<sup>th</sup>, 2015.
- xiv Electricity Meter Rentals : perpetual rent even though cost would have been recovered
- xv FPPCA: Needs clarifications.

### **Petitioner's Response**

#### **Quote**

“

- i. *The Department has already taken decision to replace vulnerable HT/LT overhead lines with ABC conductor and estimates are under preparation.*
- ii. to v. *With regard to proposing fixed charges, it is intimated that as per section 45 of Electricity Act 2003, the charges for electricity supplied by a distribution licensee may include a fixed charge in addition to the charge for the actual electricity supplied. The proposed fixed charge for electricity consumers is to compensate for the fixed cost to maintain the Electricity infrastructure including Operation & Maintenance.*

*In future, the Department will explore the KVA billing and meter with MDI will be installed. The concept of maximum Demand Indicators, Power Factor Surcharge etc. have now been proposed for HT/EHT consumers in the tariff schedule for the control period 2015-18. Only bare minimum fixed charges of Rs. 20/KW/month have been proposed for the domestic consumers as compared to other consumer categories.*

- v. *As per the orders of the Hon'ble Commission on Suo-moto petition (79/2012), the FPPCA adjustment shall be done for all consumer categories except Below Poverty Line (BPL) and agriculture consumers. Keeping in view the above as well as the approved tariff order for FY 2014-15 by Commission, the same has been proposed in the tariff.*

- vi. *No rates have been increased since 2001 for security deposits. The same have been proposed as per the clause 6.10 of the Electricity Supply Code regulation 2010.*
- vii. *As per Clause 6.10 of the Electricity Supply Code Regulations 2010, the licensee may take a security deposit from the consumers for consumption equivalent to the estimated consumption for a specific period. However, the Preparation of DNIT for Pre-paid Metering is under progress after the recent approval of competent authority of Chandigarh Administration.*
- ix. *CED by its sincere efforts has paid maximum consumers the interest on consumer security deposit as per various orders of JERC. However, as mentioned in MYT petition, there are still few consumers left with non-availability of date of connection to whom to such interest is required to be paid. The efforts are still on and they will be given interest by June 2015 w.e.f. 2003.*
- x.&xi. *These charges are being levied since 2002. The service rentals/service equipment charges have been proposed to be levied as per section 46 of the Electricity Act 2003, which is reproduced as below:*  
*“The State Commission may, by regulations, authorize a distribution licensee to charge from a person requiring a supply of electricity in pursuance of section 43 any expenses reasonably incurred in providing any electric line or electrical plant used for the purpose of giving that supply”*  
*Hence, CED has taken up the matter with Hon’ble JERC in this MYT petition and action shall be taken as per the JERC order.*
- xii. *As per the compliance of JERC Directive on enforcement cell, CED is regularly submitting such information to Hon’ble Commission. It is mention here that through Enforcement Wing of CED, the amount collected for theft cases in the first and second quarter of Financial Year 2014-15 is Rs. 11,58,157/- and Rs. 3,65,847/- respectively.*

- xiii. *The Commission has allowed the observations and objection to be filed on the MYDT petition and business plan even upto March 18<sup>th</sup>, 2015.*
- xiv. *As per section 46 of the Electricity Act 2003 which is reproduced as below:  
“The State Commission may, by regulations, authorize a distribution licensee to charge from a person requiring a supply of electricity in pursuance of section 43 any expenses reasonably incurred in providing any electric line or electrical plant used for the purpose of giving that supply”.*  
*Accordingly, the same has been proposed in the petition please. However, no meter rent is charged, if the consumer purchases his own meter from market. Also no charges are levied for replacement of defective/electromagnetic meter etc.*
- xv. *The detailed orders of Hon’ble JERC dated 27.06.2012 for levy of FPPCA has been put up on the website [www.chdengeering.gov.in](http://www.chdengeering.gov.in) . Accordingly, all the latest FPPCA to be levied are also being put up on the same website for reference of all the consumers.”*

**Unquote**

**Commission’s View:**

These issues shall be appropriately handled by the Commission in due course after the Business Plan is revisited by the CED appropriately and submitted to the Commission for approval. Directions to this effect have already been made by the Commission in this order. The Service equipment charges are levied by the CED as per Gazette notification of Chandigarh Administration dated September 30<sup>th</sup>, 2002. The Commission in its order on 1<sup>st</sup> Tariff Petition of the CED for FY 2012-13 ordered as under.

**Quote**

“.....

*All existing provisions, which are not modified by this Order, shall continue to be in force. ....”*

**Unquote**



**2 Small Industries Association- Shri Yash Pal Mahajan, President**

**Improve the performance of CED to let Small Industry survive.**

**Petitioner's Response**

**Quote**

*"In this regard, it is intimated that in order to ensure for system as well as performance improvement, CED has submitted Business Plan for control period 2015-18 as well as MYT petition based on business plan to Commission which includes long term planning for capital investment, Power procurement etc. which shall take care for all possible avenue for improvements such as system improvement and reduction of losses etc whose benefits shall reach to the electricity consumers of UT Chandigarh."*

**Unquote**

**Commission's View:**

The Commission has directed CED for an action on on Energy Efficiency, T&D losses, Metering, Standards of Performance etc. for improvement in the interest of various Stakeholders.

**3 Chandigarh Industrial Area Tenants Association**

Interest on Advance Consumption Deposit (ACD) is not paid by the CED as per JERC's Supply Code 2010, Alternative mechanism of Bank Guarantee format not yet finalized by CED.

**Petitioner's Response**

**Quote**

*"The treatment on consumer security and interest thereon has been ensured by CED as per JERC MYT regulation 2014. Further CED has already issued commercial instruction regarding acceptance of security in form of Bank Guarantee and standardized a bank guarantee format."*

**Unquote**

**Commission's View:**

Interest on ACD has been paid to some to some of the Consumers and the other Consumers will be paid the Interest by June 30<sup>th</sup> , 2015.

The Commission takes note that the Bank Guarantee Mechanism has been finalized by the Petitioner.

**4 Chandigarh Beopar Mandal**

- i.T&D loss is much less in other states.
- ii.Defaulters with outstanding more than 1.00 Lacs be listed,
- iii.Chandigarh Admiration to subsidize the Consumers being charged subsidized tariff and avoid putting the burden on Subsidizing Customers,
- iv.Fixed Electricity charges should not be increased rather waived of in view of higher tariffs.
- v.Kundi Connection theft still going on, that needs to be stopped. Inventory of Electricity Meters to be kept for replacing the faulty meters, needs to be done.
- vi.Cables short in supply with CED.
- vii.The Transformers are not matching the peak hour loads.

**Petitioner's Response**

**Quote**

“

*i. It is pertinent to mention that since UT Chandigarh has not been provided any Inter State Transmission Point within the periphery of UT Chandigarh as such additional approx 3% notional interstate losses are being borne by CED. Further, around 99% of the consumers in UT Chandigarh are at LT level (440 V) which has an adverse effect on the loss reduction. However, CED is making all efforts for reducing its T&D losses by undertaking various measures*

*In order to ensure for system as well as performance improvement, CED has submitted Business Plan for control period FYs 2015-18 as well as MYT petition based on business plan to Commission which includes long term planning for capital investment plan etc which shall take care for all possible avenue for*

*improvements such as system improvement and reduction of losses etc whose benefits shall reach to the electricity consumers of UT Chandigarh.*

- ii. The Chandigarh Electricity Department (CED) has made sincere efforts in reducing the defaulting amount from both Govt. and Pvt. Organizations'. Notices under section 56 of the Electricity Act 2003 is already printed on the backside of the electricity bill issued to the consumers for the payment of the billed amount by the due date and disconnection when the billed amount is not made by the due date. However, as per provision of JERC regulation, additional ACD is being accepted in three instalments, if required.*

*Further, as per clause 28 of JERC Terms and conditions for determination of Tariff Regulations 2009, a provision of bad debts up to 1% of receivables in the revenue requirement of the CED is allowed and thus, proposed tariff hike does not consider/ include arrears etc.*

*As per the direction of JERC, list of consumers having defaulting amount of Rs 1 Lakh and above has already been uploaded on the website of the department which can be referred for further consideration, if required.*

- ii. No subsidy is given to any category of consumer in Chandigarh. Tariff are fixed by the Hon'ble Commission as per National Tariff Policy which provides 50% average cost of supply should be of lowest category of consumer (BPL etc.) and for other categories it should be within plus/minus 20% of average cost of supply.*

- iii. With regard to proposing fixed charges, it is intimated that as per section 45 of Electricity Act 2003, the charges for electricity supplied by a distribution licensee may include a fixed charge in addition to the charge for the actual electricity supplied. The proposed fixed charge for electricity consumers is to compensate for the fixed cost to maintain the Electricity infrastructure including Operation & Maintenance.*

- iv. The CED has special cell called "Enforcement Cell" which raids the premises based on inputs and also undertakes other vigilance activities like review of*

*loads, checking of by-passing and tampering of meters, checking the accuracy of electricity meter. Moreover, at sub-division level also, the routine checking of premises is also going on to take care of any theft/regularities. To avoid kundi connections, electricity connections have been provided to slum dwellers/ unauthorized colonies/ residents outside lal dora to plug revenue leakage and for safety of human beings from electrocution etc. Many Consumers who found guilty are penalized by the Department as per notifications issued by the JERC/Electricity Act, 2003. Further, CED is submitting quarterly report on the working of enforcement cell to Hon'ble JERC. With the help of police, regular kundi connection removal operations are also being carried out.*

*vi. In this regard, it is intimated that in order to ensure for system as well as performance improvement, CED has submitted Business Plan for control period 2015-18 as well as MYT petition based on business plan to Commission which includes long term planning for capital investment plan, etc which shall take care for all possible avenue for improvements such as system improvement and reduction of losses etc whose benefits shall reach to the electricity consumers of UT Chandigarh. Regarding meter procurement plan, CED is regularly submitting the status report to Hon'ble JERC in suo moto hearing on metering, reading and billing. Other necessary material is being procured as required."*

**Unquote**

**Commission's View:**

The reply of the Petitioner is noted. The Commission shall monitor the actions initiated by CED in respect of System strengthening and arranging capital equipment.

**5 Chandigarh Govt. Electrical Contractors' Association**

- i Major Losses identified at 30-35 Years old 11KV Indoor Sub stations, no augmentation done.
- ii APDRP Scheme funds lapsing
- iii Job against advance Payments made to Power Grid Ltd. since 2008-09 not yet complete.

- iv Consumers including 11 KV connections getting delayed connections on the pretext of overloaded feeders.
- v The Solar Power fed to the Grid from CREST Plant is unaccounted in the petition.

### **Petitioner's Response**

#### **Quote**

“

i.&ii. *As per guidelines of RAPDRP, the WAPOX has estimated the T&D losses for few months and not complete Financial Year. Therefore, these are not correct for comparison purpose.*

*Agreed, 11 KV Indoor Sub Station having Transformers of 800/1000 KVA has not been augmented because this will not have reduced the T&D Losses. Instead, for the last more than 10 years, CED has installed small low loss transformers (300 KVA) as per CEA specification near the load center which has reduced the losses. Further, no funds have been received under RAPDRP Scheme.*

iii. *CED has no manpower/specialization to carry 66 KV works. The Department got the 66 KV works done from PGCIL/NTPC/BBMB as per provisions of GFR. 220 KV Sub Station is vital infrastructure feeding more than 50% power to Chandigarh and is being maintained by CTU which is maintaining all asset of 220 KV in India as CTU. PGCIL, a Govt. of India undertaking is specialized in this field. However, to explore the potential tender for O&M of 220 KV Sub Station has been floated.*

iv. *The department is bound to comply with SoP regulation notified by Hon'ble Commission and in most cases 11 KV connections are released as per SOP. However, for any technical constraints in releasing major load, it must be appreciated that proper planning is needed at 66 KV Grid Sub Station level.*

v. *CED is required to act in this regard as per approved regulation on solar power notified by JERC and after commercial agreement the power produced by CREST will be duly accounted for.”*

#### **Unquote**

**Commission's View:**

The Commission has taken note of this submission.

**6 Chandigarh Residents Social Welfare Federation (Regd.)**

- i CED to collect Rs.11 Crore from various State Departments. List of defaulters with more than Rs.1 Lac outstanding be made. Commission had previously asked for a four monthly status from CED.
- ii Power theft still not attended to.
- iii CED has failed to bring down T&D Losses as compared to Himachal.
- iv T&D Losses due to non-repair of Transformers, irregular Oil Changes, underground Cable joints.
- v Staff Position is low even when number of consumers has increased.
- vi Fault location done manually, Light of Mobile Telephone or a torch. Fault location machine purchased in 1996 for underground cables is stored for repairs.
- vii Service Equipment Charges to be abolished.
- viii Meters rentals for privately owned meters need not be charged.

**Petitioner's Response**

**Quote**

“

*i. The Chandigarh Electricity Department (CED) has made sincere efforts in reducing the defaulting amount from both Govt. and Pvt. Organizations'. Notices under section 56 of the Electricity Act 2003 is already printed on the backside of the electricity bill issued to the consumers for the payment of the billed amount by the due date and disconnection when the billed amount is not made by the due date. However, as per provision of JERC regulation, additional ACD is being accepted in three installments, if required.*

*Further, as per clause 28 of JERC Terms and conditions for determination of Tariff Regulations 2009, a provision of bad debts up to 1% of receivables in the revenue requirement of the CED is allowed and thus, proposed tariff hike does not consider/ include arrears etc. The list of defaulters more than 1 lacs is also*

*uploaded on the website of Electricity Wing of Engineering Department, Chandigarh Administration i.e. [www.chdengineering.gov.in](http://www.chdengineering.gov.in).*

*ii. The CED has special cell called "Enforcement Cell" which raids the premises based on inputs and also undertake other vigilance activities like review of loads, checking of by-passing and tampering of meters, checking the accuracy of electricity meter. Moreover, at sub-division level also, the routine checking of premises is also going on to take care of any theft/regularities. To avoid kundi connections, electricity connections have been provided to slum dwellers/ unauthorized colonies/ residents outside lal dora to plug revenue leakage and for safety of human beings from electrocution etc. Many consumers who found guilty are penalized by the Department as per notifications issued by the JERC/Electricity Act, 2003. Further, CED is submitting quarterly report on the working of enforcement cell to Hon'ble JERC. With the help of police, regular kundi connection removal operations are also being carried out.*

*iii.&iv. It is pertinent to mention that since UT Chandigarh has not been provided any Inter State Transmission Point within the periphery of UT Chandigarh as such additional approx 3% notional interstate losses are being borne by CED. Further, around 99% of the consumers in UT Chandigarh are at LT level (440 Volt) which has an adverse effect on the loss reduction. However, CED is making all efforts for reducing its T&D losses by undertaking various measures*

*In order to ensure for system as well as performance improvement, CED has submitted Business Plan for control period 2015-18 as well as MYT petition based on business plan to Commission which includes long term planning for capital investment plan etc. which shall take care for all possible avenue for improvements such as system improvement and reduction of losses etc whose benefits shall reach to the electricity consumers of UT Chandigarh.*

*It is to mention here that in the Suo-Moto Petition No. 76 of 2015, CED is regularly submitting the requisite information regarding AT&C Loss Reduction*

*Programme to the Hon'ble Commission. It is mentioned here that CED has shown remarkable improvement in T&D losses from FY 2012-13 as 18.8% to FY 2014-15 as 15% (approx.).*

*v. In this regard, it is intimated that based on approval of manpower study by Hon'ble JERC, the complete case for the approval of Govt. of India had been sent to higher office and is under process. Such posts shall be filled up after the approval of Govt. of India.*

*vi. In this connection it is submitted that estimate and NIT has been prepared. As soon as the approval is granted by the O/o CE UT, tenders will be invited for procurement of Fault Locating Van. However, faults are located immediately as the Department has outsource this service.*

*viii. These charges are being levied since 2002. These service rentals/service equipment charges have been proposed to be levied as per section 46 of the Electricity Act 2003 which is reproduced as below:*

*"The State Commission may, by regulations, authorize a distribution licensee to charge from a person requiring a supply of electricity in pursuance of section 43 any expenses reasonably incurred in providing any electric line or electrical plant used for the purpose of giving that supply"*

*Hence, CED has taken up the matter with Hon'ble JERC in this MYT petition and action shall be taken as per the JERC order.*

*ix. As per section 46 of the Electricity Act 2003 which is reproduced as below:*

*"The State Commission may, by regulations, authorize a distribution licensee to charge from a person requiring a supply of electricity in pursuance of section 43 any expenses reasonably incurred in providing any electric line or electrical plant used for the purpose of giving that supply".*

*Accordingly, the same has been proposed in the petition please. However, no meter rent is charged, if the consumer purchases his own meter from market.*



*Also no charges are levied for replacement of defective/electromagnetic meter etc.”*

**Unquote**

**Commission’s View:**

There will be no charges under this head w.e.f. from the present Tariff Order.

However for records it was examined, these service Charges were levied as per Chandigarh Administration Gazette notification dated September 30<sup>th</sup> 2002. The Commission while issuing orders on the Petition for FY 2012-13 ordered in Chapter 8 “COMMISSION’s ORDER” as under:

**Quote**

*Sl. No 3.*

*“.....*

*All existing provisions which are not modified by this Order shall continue to be in force. ....”*

**Unquote**

**7 Indian Citizen’s Forum (Regd.)**

- i DS category consumers using connection for Commercial use be put under NRS category.
- ii Tariff Chart be amended to incorporate above change.

**Petitioner’s Response**

**Quote**

*“In this regard, it is intimated that consumer category “DMC” was not granted in the tariff orders approved by the Hon’ble Commission. Further it is intimated that “Usage of electricity for the purpose other than for which it was authorized” is covered under Section 126 of Electricity Act 2003” and such unauthorized use cannot be regularized by creating another consumer category. For such unauthorized use, provision of assessment under section 126 exists there in the Electricity Act 2003.”*

**Unquote**

**Commission's View:**

The Commission has taken note of this submission. The apprehensions of the stakeholders in regard to above issues may be set at rest.

**8 National Consumer Awareness Group- Shri RP Singla**

Reply received from CED on initial objection is Casual and non-specific w.r.t following important parameters.

- i How are the Losses being calculated?
- ii What are the losses due to poor maintenance?
- iii Non-Checking / improper checking of the defective meters at site.
- iv Outsourcing work at higher costs.
- v Non utilization of Funds under APRDP Schemes.
- vi DMC connection to be declared as DS instead of NRS as per the directions of JERC.

**Petitioner's Response**

**Quote**

“

- i. to iii. *In this regard, it is intimated that the calculation of actual T&D Loss is depicted in the Table 4 of MYT petition for the control period 2015-18 (Page No. 13) under "Energy Balance" head. Such reduction of loss has been achieved by the continuous improvement efforts put up by the department. Further, Hon'ble Commission is conducting suo moto hearing on metering issues since year 2012 and in its latest order, Hon'ble Commission has found the status of metering in UT Chandigarh much ahead of other UTs.*
- iv. *All maintenance work is carried out through e-tendering portal/e-quotation portal/applicable rules for fair & wider publicity and at reasonable cost.*
- v. *With regard to progress status on R-APDRP front, CED is updating Hon'ble Commission while submitting status on JERC Directives. No funds have been allotted under RAPDRP Scheme.*
- vii. *It is intimated that consumer category "DMC" was not granted in the tariff orders approved by the Hon'ble Commission as Further it is intimated that*

*“Usage of electricity for the purpose other than for which it was authorized” is covered under Section 126 of Electricity Act 2003” and such unauthorized use cannot be regularized by creating another consumer category. For such unauthorized use, provision of assessment under section 126 exists there in the Electricity Act 2003.”*

**Unquote**

**Commission’s View:**

The Commission has taken note of this submission.

**9 Senior Citizen Welfare Council**

CED to carry out load survey for levying the fixed charges the rather than depending on Self Declaration only.

**Petitioner’s Response**

**Quote**

*“With regard to proposing fixed charges, it is intimated that as per section 45 of Electricity Act 2003, the charges for electricity supplied by a distribution licensee may include a fixed charge in addition to the charge for the actual electricity supplied. The proposed fixed charge for electricity consumers is to compensate for the fixed cost to maintain the Electricity infrastructure including Operation & Maintenance.*

*Further, it is intimated that Chandigarh Electricity Department (CED) is required to send the self-declaration of load forms its electricity consumers so as to ensure the compliance of clause 4.13(2) of JERC (Electricity Supply Code) regulation 2010 as amended from time to time.*

*As CED does not believe in discouraging its law abiding consumers thus to deal with law violating consumers who do not come forward to declare self-connected load, CED requests Hon’ble JERC to increase the penalty from Rs 250/- per kW to Rs 1000/- per kW under clause 4.13(3) under JERC (Electricity Supply*

*Code) First Amendment Regulation 2013, if the connected load is found in excess by more than 20% of the sanctioned load during verification of load.”*

**Unquote**

**Commission’s View:**

The Commission notes the Petitioner’s response. The Commission directs the Petitioner to intensify efforts on Customers’ Load Survey Suggestion about penalty regarding connected load will be examined for all UTs and the state of Goa and a uniform orders will be issued by the Commission.

## 4. FINAL TRUE UP OF FY 2011-12 & FY 2012-13 AND PROVISIONAL TRUING UP FY 2013-14

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### 4.1 Final True up of FY 2011-12 to FY 2012-13

#### **Petitioner's submission**

The Commission had given directions in the previous Tariff Orders to get the accounts prepared on commercial principles and get them audited. Since CED is operating as a department within the Govt. of India, currently the system of account keeping is on cash receipt and expense basis. Further, as per existing rules followed in Chandigarh administration, CAG has audited the pro-forma accounts for FY 2011-12 and FY 2012-13.

However, in absence of audited accounts prepared on commercial principles, the Commission carried out a provisional true up for the FY 2011-12 and FY 2012-13. CED also agrees with the fact that as per the accounting principles the revenue and expenditure to be considered for a financial year should be on accrual basis of accounting, therefore, CED had also requested to treat the gap for previous years as Regulatory Asset which could be considered for tariff hike in subsequent ensuing years after the compliance of JERC directives regarding preparation of accounts on commercial accounting principles and Fixed Asset Register.

The CED has initiated the process of preparation of accounts on commercial accounting principles and Fixed Assets Register. The CED had floated a tender for appointment of consultant for the task but due to lack of responses, it had to revise and extend the tender at multiple times. Now the tender process is in an advanced stage and the work for the preparation of accounts on commercial accounting principles will be completed very soon. The Commission has also granted the time till September 30<sup>th</sup>, 2015 to CED for preparation of accounts. The accounts are expected to be finalized by that time. CED shall apprise the Commission of the progress of work related to preparation of accounts from time to time.

The CED submits that it is making every effort to comply with the Commission's direction on preparing the Fixed Asset Register. However, due to various reasons, the process has got delayed. In the meanwhile, CED requests the Commission to approve the old assets on provisional basis till the time such accounts / Asset Register is made available to the Commission and approve depreciation, return on equity and interest cost in the ARR for FY 2013-14, FY 2014-15 and for FY 2015-16 as submitted by the Petitioner with this petition. The Commission may true-up these components based on the audited accounts and Fixed Assets Register after availability of accounts in the coming years. Further, CED submits that pending the availability of audited accounts on commercial accounting principles, the CED is not filing any final True up for FY 2011-12 and FY 2012-13 and carrying the same gap determined by the Commission for previous years in ARR of control period. The Commission may True-up the gap determined for FY 2011-12 and FY 2012-13 based on the audited accounts on commercial principles basis and Fixed Assets Register available in the coming years.

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

As already mentioned in the earlier Tariff Order dated April 11<sup>th</sup> 2014 the Commission will undertake the True-up for FY 2011-12 and FY 2012-13, once the audited accounts prepared on the commercial principles are made available to the Commission by the CED.

#### **4.2 Provisional True-up for FY 2013-14**

##### **Petitioner's submission**

As detailed earlier, CED is making all efforts to prepare the accounts on the Commercial accounting principle and submit the same to the Commission in due course of time. In this Petition CED has submitted the Expenses and Revenue for FY 2013-14 based on the Performa accounts for FY 2013-14. The CED once again, reiterates its submission that Performa accounts of CED are duly audited by the CAG and it requests the Commission to approve the income and Expenses for FY 2013-14 as recorded in the subsequent paragraphs.

**Commission's Analysis**

The Commission in its last tariff orders dated July 16<sup>th</sup> 2011, May 7<sup>th</sup> 2012, April 15<sup>th</sup> 2013 and April 11<sup>th</sup> 2014 had directed the Petitioner to prepare annual statement of accounts on commercial account principles for regulated business of electricity. Since, ED-Chandigarh is currently operating, as a department within the Govt. of India, the system of account keeping is on cash receipt and expense basis i.e. pro-forma accounts. The Commission has raised serious concerns on non-preparation/non-availability of accounts and asked the utility to provide detailed justification for this non-compliance and reasons why current submission of Petitioner for provisional true-up of FY 2011-12, FY 2012-13 and FY 2013-14 should be considered by the Commission despite this non-compliance.

The Petitioner has responded in this Petition as mentioned in the above Para;

As the audited accounts based on commercial accounting principles are still awaited, Commission is of view it would be inappropriate to consider provisional true up FY 2013-14.

The Commission shall, therefore, undertake the True-up for FY 2013-14 once the audited accounts prepared on the Commercial Principles are made available to the Commission by the CED.

The Commission had approved a gap of Rs 32.87 Crore after review of ARR of FY 2011-12 in tariff order dated 15 April 2013. The Commission has brought forward this gap of Rs 32.87 Crore in ARR of FY 2013-14 as reviewed in this Order. The Commission has approved surplus Revenue Gap of Rs. 23.51 Crore for FY 2013-14 (after taking in to consideration the revenue gap of Rs. 32.87 Crore for FY 2012-13) after review of ARR of FY 2013-14 in the Tariff Order dated April 11<sup>th</sup> 2014.

The Commission would like to emphasize that it has been repeatedly directing the Petitioner to prepare accounts on commercial principles since issuance of first Tariff Order on July 16<sup>th</sup> 2011. While, the Commission acknowledges that the efforts have now been initiated by the Petitioner for preparation of accounts on

commercial principles, considerable time has been lost due to delay in start of actions in this context by the Petitioner.

However, if the Petitioner had adhered to timelines as per the directions issued in various orders, the audited accounts (prepared on commercial principles) would have been available by now for True-up. The Commission is of the view that the delay, which is on account of Petitioner, cannot be burdened on the consumers and therefore no carrying cost will allowed for gap for FY 2013-14 (if any, after True-up is undertaken once the audited accounts on commercial principles are available).

The Petitioner is once again directed to submit the audited accounts on commercial principles, by September 30<sup>th</sup>, 2015 as already directed.

\*\*\*\*\*



## 5. REVIEW OF ANNUAL REVENUE REQUIREMENT FOR FY 2014-15

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### 5.1 Background

The Commission had approved the Aggregate Revenue Requirement for FY 2014-15 as per the provisions of the JERC Tariff Regulations 2009 vide its order on Petition no. 126/2014 dated April 11<sup>th</sup> 2014. The Petitioner has submitted its application of Review for FY 2014-15 along with the MYT Petition for the control period FY 2015-16 to FY 2017-18 on March 11<sup>th</sup>, 2015 as per the Regulation 8 of JERC Tariff Regulations, 2009 to review the variations between approvals and revised estimates/pre-actuals of sale of electricity, income and expenditure for FY 2014-15.

1. After initial scrutiny/analysis, Commission took the petition on record on March 13<sup>th</sup>, 2015.
2. The Commission's office interacted with the Petitioner to seek clarifications and justification on various issues as part of the preliminary analysis of the petition, which were sought to be clarified by the Petitioner as under:
  - a) To provide detailed justification for the non-compliance and reasons why the Petition in its current submission for True-Up of FY 2013-14 should be considered by the Commission despite this non-compliance of Commission's directives for preparation of accounts on commercial accounting principles and preparation of Fixed Asset Register.
  - b) To provide details of long term/short term power purchase, month wise and source wise, for FY 2013-14 (actual for whole year) and FY 2014-15 (actual for first 9 months) and station-wise, month-wise details of FPA/FPPCA, tax, past arrears etc. as per Format 4.
  - c) To submit month wise bills for PGCIL charges, NRLDC FC, REC, RPO, LC, including any arrear bills, if any for FY 2013-14 and FY 2014-15 (actual for first 9 months);

- d) UI summary sheet, indicating the over- drawl and under- drawl along with the UI payable and receivable amount be submitted as per the claimed amounts in the petition. UI Bills for FY 2013-14 and FY 2014-15 (actual for first 9 months) in support of this to be furnished;
3. The Commission's office interacted with the Petitioner to seek clarifications and justification on various issues necessary for the technical validation of data for analysis of the tariff petition. Technical validation session was held on 24 and 25 March 2015 and during validation, a few additional clarifications were required to be made by the Petitioner as under.
  - a) Reasons for projecting 15.0% losses for FY 2014-15, though the approved losses are 14%.
  - b) Reasons for late submission of the ARR petition.
  - c) Status note on BBMB Arrears, etc.
4. The Petitioner furnished information on data gaps along with supporting data on 24-25 March 2015 to substantiate its claims.

The Petitioner has furnished the updated information of actual power purchase cost, Sales & Revenue for 9 months of FY 2014-15 and provisional power purchase cost for FY 2014-15 to the Commission during the technical validation session. The Commission has analyzed the petition and the bills based on the provisions of the regulations and pre-actuals submitted by the Petitioner for FY 2013-14.

The Commission has taken into consideration the following for Review of FY 2014-15:

1. The figures for FY 2014-15 as approved in the Tariff Order dated April 11<sup>th</sup> 2014;
2. Provisional figures for FY 2014-15(RE) based on the actual data / information from April 2014 to December 2014;

## **5.2 Review & Analysis of Performance of FY 2014-15**

The review of performance requires assessment of quantum of energy sales, energy loss as well as various cost elements like power purchase cost, O&M expenses, interest cost and depreciation etc. Revised estimates/pre-actuals submitted by the Petitioner as regards to various components of ARR, the Commission's analysis thereon and decision in respect of items given below are indicated in the following Para's:

- **Review of Energy Requirement**
  - Sales Projections
  - Loss Trajectory
  - Energy Balance
  - Power Purchase Sources
- **Review of the Aggregate Revenue Requirement**
  - Power Purchase Costs & Transmission Charges;
  - Operation and Maintenance Expenses;
  - Employee Expenses
  - Administration & General expenses
  - Repairs & Maintenance Expenses
  - Capital Expenditure and Asset Capitalization
  - Gross Fixed Assets;
  - Depreciation;
  - Interest on Long Term Loans;
  - Interest on Working Capital & Security Deposits;
  - Return on Capital Base/ Net Fixed Assets;
  - Provision for Bad and Doubtful Debts
  - Other expenses.
  - Non-Tariff Income

### 5.3 Estimations of Energy Sales, Connected Load and Number of Consumers

#### Energy Sales

##### Petitioner's submission

The category wise sales for the first nine months of FY 2014-15 are given in the table 5.1 below. The Petitioner has submitted that the sales during the first nine months in CED are historically much higher than proportionately achieved in the first quarter. Hence the sales for the last three months of FY 15 are estimated moderately and not in proportion of first nine months of FY 2015. The sales estimated for the whole year and approved by the Commission in the Tariff Order dated April 11<sup>th</sup> 2014 are given in the table 5.1 below:

**Table 5.1: Energy Sales for FY 2014-15 Petitioner's Submission**

(MU)				
Sl. No	Categories	Approved in the T.O. dated 11 April, 2014	Actual 9 Months	Estimated for Whole Year FY 2014-15
1	Domestic	660.82	627.41	697.57
	SPD-JJ Clusters/ Unauthorized colonies	19.64	53.88	62.86
	0-150 kWh	56.39		
	151-400 kWh	209.18	160.63	187.4
	Above 400 kWh	375.61	412.9	447.31
	2	Commercial	421.44	430.43
2	0-150 kWh	6.26	4.81	5.61
	151-400 kWh	14.77	11.8	13.76
	Above 400 kWh	400.41	413.82	459.8
3	Large Supply	118.75	87.14	101.66
4	Medium Supply	92.14	80.1	97.9
5	Small Power	17.85	15.52	18.97
6	Agriculture	1.59	1.45	1.61
7	Public Lighting	19.63	15.96	19.51
8	Bulk Supply	84.25	69.52	77.24
9	Others Temporary Supply	7	5.12	5.69
	<b>Grand Total</b>	<b>1423.46</b>	<b>1332.64</b>	<b>1499.32</b>

**Connected Load: FY 2014-15**

**Petitioner's submission**

The CED has not envisaged any growth in the consumer load in the next three months of FY 2015 and estimates the connected load to remain at the same level as on December 31<sup>st</sup>, 2014. The connected load as on December 31<sup>st</sup>, 2014 and estimated connected load for FY 2014-15 (RE) is given in the table 5.2 below.

**Table 5.2: Estimated connected Load for FY 2014-15 - Petitioner's Submission**

(kW)				
Sl. No	Categories	Approved in Tariff Order dated 11 <sup>th</sup> April, 2014	Actual 9 months	Estimated for whole year FY 2014-15
1	Domestic	818701	792280	792280
	JJ Clusters	1587	199739	199739
	0-150 kWh	234238		
	151-400 kWh	292166	311837	311837
	Above 400 kWh	290710	280704	280704
2	Commercial	370531	378826	378826
	0-150 kWh	39941	30079	30079
	151-400 kWh	28076	24957	24957
	Above 400 kWh	302514	323789	323789
3	Large Supply	69565	70127	70127
4	Medium Supply	64373	64467	64467
5	Small Power	19269	19244	19244
6	Agriculture	714	719	719
7	Public Lighting	7328	5912	5912
8	Bulk Supply	41716	41298	41298
9	Others Temporary Supply	5728	4187	4187
	<b>Grand Total</b>	<b>1397929</b>	<b>1377060</b>	<b>1377060</b>

**Number of Consumers: FY 2014-15**

**Petitioner's submission**

The CED has not envisaged any growth in the number of consumers as well in the next three months of FY 2014-2015 and estimates the total connections to remain at the same level as on 31 December 2014. The number of consumers as on December 31<sup>st</sup> 2014 and estimated at the end of FY 2015 is given in the table 5.3 below:

**Table 5.3: Estimated Number of Consumers for FY 2014-15 – Petitioner’s Submission**

Sl. No	Categories	Approved in Tariff Order dated 11 April, 2014	Actual 9 months	Estimated for whole year FY 2014-15
1	Domestic	176650	181204	181204
	JJ Clusters	15247		
	0-150 kWh	76495	82492	82492
	151-400 kWh	61191	72149	72149
	Above 400 kWh	23718	26563	26563
2	Commercial	21324	21938	21938
	0-150 kWh	9513	8837	8837
	151-400 kWh	4849	5107	5107
	Above 400 kWh	6962	7994	7994
3	Large Supply	103	104	104
4	Medium Supply	1247	1176	1176
5	Small Power	1298	1281	1281
6	Agriculture	124	874	874
7	Public Lighting	959	564	564
8	Bulk Supply	638	120	120
9	Others Temporary Supply	1272	628	628
	<b>Grand Total</b>	<b>203615</b>	<b>207889</b>	<b>207889</b>

The Petitioner has requested the Commission to approve the above requested energy sales, connected load and number of consumers (tables 5.1, 5.2 and 5.3) for FY 2014-15.

**Commission’s analysis of Energy Sales, Connected Load and number of Consumers**

The Petitioner estimated the category wise energy sales based on 9 months actual from April to December 2014.

The Commission has examined the estimated Energy Sales, projected based on 9 months actuals and 3 months, and considers that the estimates are reasonable and approves the same for the purpose of review of FY 2014-15. The connected load and the number of consumers for FY 2014-15 (RE), projected by the Petitioner are also considered reasonable and hence approved. Any variation in the revised estimated (RE) Projections, will be taken care of at the time of True-Up exercise.

Accordingly, the energy sales, connected load and number of consumers are approved as given in the Tables 5.4, 5.5 and 5.6 below:

**Table 5.4: Energy Sales considered by the Commission for FY 2014-15 (RE)**

**(MU)**

Sl. No.	Categories	FY 2014-15			
		Petitioner's Submission	Approved in T.O. dated 11 April, 2014	Petitioner's Submission for Review	Considered for Review by the Commission
1	Domestic	646.7	660.82	697.57	697.57
	SPD-JJ Clusters/ Unauthorized colonies	19.22	19.64	62.86	62.86
	0-150 kWh	55.19	56.39		
	151-400 kWh	204.71	209.18	187.4	187.4
	Above 400 kWh	367.58	375.61	447.31	447.31
2	Commercial	434.26	421.44	479.18	479.18
	0-150 kWh	6.45	6.26	5.61	5.61
	151-400 kWh	15.21	14.77	13.76	13.76
	Above 400 kWh	412.59	400.41	459.8	459.8
3	Large Supply	137.5	118.75	101.66	101.66
4	Medium Supply	90.01	92.14	97.9	97.9
5	Small Power	17.89	17.85	18.97	18.97
6	Agriculture	1.39	1.59	1.61	1.61
7	Public Lighting	24.23	19.63	19.51	18.51
8	Bulk Supply	81.15	84.25	77.54	77.24
9	Others Temporary Supply	8.79	7	5.69	5.69
	<b>Grand Total</b>	<b>1444.91</b>	<b>1423.46</b>	<b>1499.32</b>	<b>1499.32</b>

Table 5.5: Connected Load considered by the Commission for FY 2014-15 (RE)

Sl. No	Categories	FY 2014-15			
		Petitioner's Submission	Approved in T.O. dated 11 April, 2014	Petitioner's Submission for Review	Considered for Review by the Commission
1	Domestic	814810.08	818701.73	792280	792280
	SPD-JJ Clusters/ Unauthorized colonies	1579.46	1587.01	199739	199734
	0-150 kWh	233124.60	234238.03		
	151-400 kWh	290777.39	292166.18	311837	311837
	Above 400 kWh	289328.63	290710.51	280704	280704
2	Commercial	373416.24	370531.88	378826	378826
	0-150 kWh	40252.5	39941.58	30079	30079
	151-400 kWh	28294.65	28076.09	24957	24957
	Above 400 kWh	304869.09	302514.21	328789	328789
3	Large Supply	73986.36	69565.95	64467	64467
4	Medium Supply	64373.15	64373.15	70127	70127
5	Small Power	19471.9	19471.4	19244	19244
6	Agriculture	721.21	714.07	719	719
7	Public Lighting	6699.05	7328.38	5912	5912
8	Bulk Supply	42133.19	41716.03	41298	41298
9	Others Temporary Supply	5785.99	5728.7	4187	4187
	<b>Grand Total (KW)</b>	<b>1401397.18</b>	<b>1397929.46</b>	<b>1377060</b>	<b>1377060</b>

Table 5.6: Number of Consumers considered by the Commission for FY 2014-15

S. No	Categories	FY 2014-15			
		Petitioner's Submission	Approved in T.O. dated 11 April, 2014	Petitioner's Submission for Review	Considered for Review by the Commission
1	Domestic	176913	176650	181204	181204
	SPD-JJ Clusters/ Unauthorized colonies	15270	15427		
	0-150 kWh	76609	76495	82492	82492
	151-400 kWh	61282	61191	72149	72149
	Above 400 kWh	23753	23718	26563	26563
2	Commercial	22391	21324	21938	21938
	0-150 kWh	9989	9513	8837	8837
	151-400 kWh	5091	4849	5107	5107
	Above 400 kWh	7311	6962	7994	7994



S. No	Categories	FY 2014-15			
		Petitioner's Submission	Approved in T.O. dated 11 April, 2014	Petitioner's Submission for Review	Considered for Review by the Commission
3	Large Supply	105	103	104	104
4	Medium Supply	1236	1247	1176	1176
5	Small Power	1311	1298	1281	1281
6	Agriculture	125	124	874	874
7	Public Lighting	944	959	564	564
8	Bulk Supply	534	638	120	120
9	Others Temporary Supply	941	1272	628	628
	<b>Grand Total</b>	<b>204498</b>	<b>203615</b>	<b>207889</b>	<b>207889</b>

#### **5.4 Intra-State Transmission & Distribution Loss FY 2014-15**

##### **Petitioner's submission**

The CED has estimated the distribution losses at 15% for FY 2014-15 as per the Commission's Order dated May 5<sup>th</sup> 2014 in petition No. 76/2012. The CED once again reiterates and submits before the Commission that actual distribution losses of UT of Chandigarh are much lower after consideration of interstate points inside the limits of UT of Chandigarh. The CED has to bear the additional losses of interstate circuit due to not having any interstate point in its boundary. The Commission is requested to approve the losses as proposed.

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

The Commission approved T&D losses at 14% for FY 2014-15 in the Tariff Order dated April 11<sup>th</sup> 2014, The order, dated May 5<sup>th</sup> 2014 in case no 76/2012, of the Commission is reproduced below.

##### **Quote**

*"The respondent no. 3-ED- Chandigarh submitted a report on loss reduction Programme as per Regulation 15 of Joint Electricity Regulatory Commission for the State of Goa and Union Territories (Terms and Conditions for Determination of Tariff) Regulations, 2009 vide affidavit dated 02.05.2014 as directed vide order dated 27.12.2013 as shown in the table below:*

*For Reduction of T&D Losses*

<i>Sl. No</i>	<i>Name of Licensee</i>	<i>Existing</i>	<i>Targeted</i>		
			<i>2013-14</i>	<i>2014-15</i>	<i>2015-16</i>
1	ED- Chandigarh	15.50%	15%	14.50%	14%

*The Commission examined the information/ report submitted by the respondent. The Commission observed that the existing T&D losses for FY 2013-14 of the respondent are 15.50%. The respondent has undertaken that they will reduce T&D losses to 14% by the end of FY 2016-17. The Commission directs the respondent to make sincere and best efforts to further reduce T&D losses.”*

**Unquote**

It can be seen from the above, the Commission directed the Petitioner to make sincere efforts to further reduce the losses. The losses at 15% proposed by the Petitioner for FY 2014-15 are not approved.

In view of the above, the Commission considers the T&D losses for the purpose of Review for FY 2014-15 at 14% only, as approved in the Tariff order dated April 11<sup>th</sup> 2014.

Therefore the Commission considers the T&D losses for the purpose of Review for FY 2014-15 at 14% only, as approved in the Tariff Order dated April 11<sup>th</sup> , 2014.

**5.5 Inter-State Transmission Loss FY 2014-15**

**Petitioner’s submission**

The inter-state transmission losses of Power Grid Corporation of India Limited have been estimated approximately to be 3.30% for FY 2014-15 by the Petitioner.

**Commission’s Analysis**

The Commission considers the recent 52 weeks moving average of regional losses at 3.78% as the inter-state loss and approves the same for review of ARR of FY 2014-15 which would be revised based on actuals during the Truing up exercise.

## 5.6 Energy Balance FY 2014-15

### Petitioner's submission

Based on the data on projected sales and power purchase obtained, revised energy balance has been prepared for FY 2014-15 by the Petitioner, which is summarized below:

**Table 5.7: Energy balance review of FY 2014-15- Petitioner's Submission**

Particulars	Approved in Tariff Order dated 11 April, 2014	Estimated
Energy Sales	1423.46	1499.32
Loss %	14%	15%
Loss (MUs)	231.73	264.59
Total Energy Required at UT Periphery	1655.18	1763.91
Transmission Loss (%)	3.38%	3.30%
Transmission Loss (MUs)	54.66	60.2
<b>Net Energy requirement</b>	<b>1709.84</b>	<b>1824.1</b>
Gross Power Purchase		
NPCIL	97.46	93.75
BBMB	762.59	694.97
THDC	40.18	37.21
SJVNL	61.13	74.76
NTPC+APCL		431.86
NHPC		247.59
Power Import- Banking		29.09
Bilateral ( Short Term Power)		10.6
Power Exchange	91.33	56.62
Deviation Settlement		216.07
Power Purchase from Other Sources	657.16	
<b>Gross Purchase</b>		<b>1892.51</b>
Power Export – Banking		29.35
UI Sale		30.04
Sale Through Power Exchange		9.00
<b>Energy Available at UT Periphery</b>	<b>1709.84</b>	<b>1824.1</b>

### Commission's Analysis

The Commission in the foregoing paragraph has approved the actual sales, internal and external, based on which the energy requirement is arrived.

Table 5.8: Energy Balance review of FY 2014-15- Commission's Approval

Sl. No.	Particulars	2014-15			
		Petitioner's submission	Approved in T.O dated 11.04.2015	Petitioner's submission for review	Considered for Review by the Commission
<b>A)</b>	<b>ENERGY REQUIREMENT (in MU)</b>				
1	Energy sales within the State/UT (in MU)	1444.91	1423.46	1499.32	1499.32
<b>2</b>	<b>Total sales within the State/UT</b>	<b>1444.91</b>	<b>1423.46</b>	<b>1499.32</b>	<b>1499.32</b>
<b>3</b>	<b>Distribution losses</b>				
i)	%	15.00%	14.00%	15.00%	14%
ii)	MU	254.98	231.73	264.59	244.08
	<b>Losses due to absence of interstate transmission Point</b>				
iii)	%	3.00%		0.00%	
iv)	MU	52.57	0	0	
<b>4</b>	<b>Energy required at State Periphery for Sale to Retail Consumers</b>	<b>1752.47</b>	<b>1655.18</b>	<b>1763.91</b>	<b>1743.40</b>
5	Add: Sales to common pool consumers/ UI (in MU)	0	0	39.04	39.04
A	Sales outside state/UT : UI/(in MU)			30.04	30.04
B	Sales (in MU)	0	0	9.00	9.00
	a) To electricity traders (in MU)				
	b) Through PX (in MU)			9.00	9.00
C	Sales to other distribution licensees	0	0	29.35	29.35
	a) Bilateral Trade (in MU)				
	b) Banking Arrangement (in MU)			29.35	29.35
<b>6</b>	<b>Total Energy Requirement for State (5+6)</b>	<b>1752.47</b>	<b>1655.18</b>	<b>1832.3</b>	<b>1811.79</b>
7	Transmission losses				
i)	%	3.00%	3.38%	3.30%	3.78 %
i)	MU	54.2	54.66	60.2	71.18
<b>B)</b>	<b>ENERGY REQUIRED AT GENERATOR END</b>	<b>1806.67</b>	<b>1709.84</b>	<b>1892.51</b>	<b>1882.96</b>
<b>1</b>	<b>Gross Availability (in MUs)</b>	<b>1731.05</b>	<b>1618.52</b>	<b>1892.51</b>	<b>1882.96</b>

Sl. No.	Particulars	2014-15			
		Petitioner's submission	Approved in T.O dated 11.04.2015	Petitioner's submission for review	Considered for Review by the Commission
2	Power Purchase				
a	NPCIL	124.25	97.46	93.75	93.63
b	BBMB	702.88	762.59	694.97	693.22
c	THDC	62.92	40.18	37.21	37.16
d	SJVNL	76.48	61.13	74.76	74.67
e	Unscheduled Interchange	0	0		0
f	Power Purchase from (NTPC+APCL)	764.52	657.16	679.45	678.11
g	Power import-Banking			29.09	29.09
h	Bilateral ( Short Term Power)			10.6	10.60
i	Deviation Settlement			216.07	216.66
<b>3</b>	<b>PXIL (Buy) to match the energy requirement</b>	75.62	91.33	56.62	49.82
<b>4</b>	<b>Gross Purchase including PX (in MU)</b>	<b>1806.67</b>	<b>1709.84</b>	<b>1892.51</b>	<b>1882.96</b>

**5.7 Power Purchase Quantum and Cost  
Petitioner's submission**

**Power Purchase Quantum and Cost**

The Petitioner submits that it procures power from various sources such as:

- Central Generating Stations (CGS) such as that of NTPC, NHPC and NPCIL
- Other Generating Stations such as that of SJVNL, BBMB, THDC, APCPL
- Other sources such as bilateral agreement, banking arrangement, power exchange and deviation settlement etc.

The Petitioner submits that the allocation from CGS consists of a fixed share of allocation for a year, and a variable share of allocation from the unallocated quota, the quantum of which keeps on changing during the year. Since the allocation of power from various sources is inadequate, the Petitioner is required to procure power from short term sources i.e. power exchange, other trading sources. And also for meeting the peak demand Petitioner is required to procure power from short-term sources and UI as deviation settlement. However, strict care is taken to limit the amount of UI draws. The Petitioner also submits that short term power

purchase and UI power purchase cost power unit has been much lower than the power purchase from various CGS and other sources.

The Petitioner, while projecting power purchase cost has considered the following points:

- Actual power purchase cost for the first nine months of FY 2014-15 has been considered based on the invoices received from various generating stations, short-term sources, etc.
- The power purchase cost for the rest of three months i.e. for last quarter of FY 2014-15 is computed based on the actual power purchase cost incurred in the first nine months of FY 2014-15.
  - a) The fixed cost of three months is computed in proportion of nine months cost for each generating station.
  - b) The variable cost for each plant is computed by variable charge per unit for first the nine months multiplied with units available for three months
  - c) The other charges also computed in proportion of nine months actual cost.
  - d) The rate of power purchase from Power Exchange is taken as actual rate for the month of January and power purchase for deviation settlement is considered to be bought at actual rate in the month of January.
  - e) PGCIL, NRLDC and reactive energy charges are computed in proportion of actual 9 months charges.
  - f) The net banking energy is considered at actuals without any cost incurred.
  - g) Additional purchase of solar power/Energy Certificates of Rs. 1.5 Crore is projected for meeting the Renewable Purchase Obligation in next three months.

The Petitioner submitted the actuals of nine months Power Purchase Quantum and Cost as given in the table 5.9 below:

Table 5.9: Actual 9 months Power Purchase Quantum and cost for FY 2014-15–Petitioner’s Submission

(Rs. Cr)					
Source	Energy (MU)	Fixed Cost (Rs. Crore)	Variable Cost (Rs. Crore)	Other Cost (Rs. Crore)	Gross Total Cost (Rs. Crore)
<b>NTPC Stations</b>					
Anta	23.24	2.7	7.47	-0.01	10.16
Auraiya	13.28	2.09	6.08	0.02	8.18
Dadri GPP	15.65	2.07	6.93	0	9
Dadri II TPP	13.14	2.1	4.6	0.01	6.7
Kahalgaon II	14.83	1.89	3.71	0	5.61
Rihand I	60.96	5.04	9.49	0	14.53
Rihand II	56.99	5.11	9.21	0.01	14.32
Rihand III	39.23	5.27	6.47	-0.34	11.4
Singrauli	24.08	1.25	2.74	-0.03	3.96
Unchahar I	14.06	1.07	3.07	0.01	4.15
Unchahar II	21.43	1.91	5.42	0.01	7.34
Unchahar III	11.96	1.12	2.46	0.04	3.49
Supp+ Rebate				-1.25	-1.25
<b>Sub Total NTPC</b>	<b>308.85</b>	<b>31.61</b>	<b>67.51</b>	<b>-1.68</b>	<b>97.58</b>
<b>NHPC Stations</b>					
Chamera I	74.73	4.91	7.53	0.01	12.45
Chamera II	16.37	2.12	2.4	0	4.53
Chamera III	9.93	1.95	2.17	0	4.12
Dhauliganga	7.74	0.84	1.12	0.01	1.97
Dulhasti	18.13	4.68	5.58	0	10.26
Parbathi III	6.81	0.71	1.83	0	2.54
Salal	7.91	0.37	0.38	0	0.75
Sewa II	5.55	1.34	1.3	0	2.64
Tanakpur	3.41	0.55	0.39	0	0.94
Uri-I	15.18	1.15	1.22	0	2.37
Uri II	19.94	2.19	2.19	0	4.39
Suppl + rebate				6.89	6.89
<b>Sub Total NHPC</b>	<b>185.69</b>	<b>20.79</b>	<b>26.12</b>	<b>6.93</b>	<b>53.84</b>
<b>APCL</b>	<b>15.04</b>	<b>2.98</b>	<b>6.04</b>	<b>-0.32</b>	<b>8.55</b>
<b>NPCIL</b>					
NAPP	27.94		6.62	0.31	6.92
RAPP (#3 and #4)	16.44		4.51	0.05	4.55
RAPP(#5 and #6)	25.93		8.84	0.04	8.88
Supp+ Rebate				0.17	0.17
<b>Sub Total NPCIL</b>	<b>70.31</b>		<b>19.96</b>	<b>0.57</b>	<b>20.53</b>
<b>SJVNL</b>					
Natthpa Jhakri	53.52	6.97	7.34	0.25	14.56

Source	Energy (MU)	Fixed Cost (Rs. Crore)	Variable Cost (Rs. Crore)	Other Cost (Rs. Crore)	Gross Total Cost (Rs. Crore)
Rampur	2.55	-	-	-	-
Supp+ Rebate				16.77	16.77
<b>SJVNL Sub Total</b>	<b>56.07</b>	<b>6.97</b>	<b>7.34</b>	<b>17.03</b>	<b>31.33</b>
<b>BBMB</b>	<b>521.22</b>	<b>24.82</b>	<b>141.46</b>	<b>-2.96</b>	<b>163.31</b>
<b>THDC</b>					
Koteshwar	6.44	1.13	1.31	-0.01	2.43
Tehri	21.46	4.81	4.92	1.02	10.75
Supp+ Rebate				0.87	0.87
<b>THDC Total</b>	<b>27.9</b>	<b>5.94</b>	<b>6.23</b>	<b>1.87</b>	<b>14.04</b>
Banking	29.09			0.73	0.73
Short Term Power Purchase	10.6		3.24	-0.065	3.17
Exchange	36.82		14.22		14.22
UI (Overdrawl)	204.66		66.05		66.05
UI Interest Paid				0.148	0.148
PGCIL Charges					25.98
NRLDC Charges					0.25
Reactive Energy					0.04
REC Cost					10.11
<b>Grand Total</b>	<b>1466.27</b>	<b>93.1</b>	<b>358.18</b>	<b>22.38</b>	<b>510.04</b>

The total power purchase quantum from long-term sources for the balance three months is computed based on the actual energy available for 9 months. The balance of energy required in remaining three months is given in the Table below:

**Table5.10: Short Term Energy Requirements (MU) for 3 months of FY 2014-15- Petitioner's Submission**

Particulars	Estimated
Energy Requirement for the year	1824.1
Energy procured in 9 months	1466.27
Energy Export in 9 months (Exchange+ UI)	-16.77
Energy Available from Long Term Sources	395.03
Energy to be exported – Banking Arrangement	-29.35
Net Short Term Energy requirement for three months of FY 2014-15	8.92
Net Energy Buy from Exchange	10.86
Net Energy Buy/Sale ( ) from UI	-1.94

The estimated power purchase quantum and cost for FY 2014-15 as submitted by the Petitioner is in table 5.11 below:



**Table 5.11: Provisional Power Purchase quantum and Cost for FY 2014-15– Petitioner’s Submission**

Sl. No.	Generating Company	Name of the Project	Units (MU)	Capacity Charges (Rs. Cr)	Energy Charges (Rs. Cr)	Other Charges (Rs. Cr)	Arrears/Supp charges (Rs.Cr)	Rebate (Rs. Cr)	Total Charges (Rs. Cr)	Total charges (Rs./kWh)
<b>I</b>	<b>NTPC</b>									
		Anta	30.99	3.60	9.96	(0.01)			13.55	4.37
		Auraiya	17.70	2.78	8.10	0.02			10.91	6.16
		Dadri GPP	20.87	2.76	9.24	0.01			12.00	5.75
		Dadri II TPP	17.52	2.79	6.13	0.01			8.93	5.10
		Kahalgaon II	19.77	2.52	4.95	0.00			7.47	3.78
		Rihand I	81.27	6.72	12.66	0.01			19.38	2.38
		Rihand II	75.99	6.81	12.27	0.01			19.09	2.51
		Rihand III	52.31	7.02	8.63	(0.34)			15.31	2.93
		Singrauli	32.10	1.67	3.65	(0.03)			5.29	1.65
		Unchahar I	18.75	1.42	4.09	0.02			5.53	2.95
		Unchahar II	28.57	2.55	7.23	0.01			9.78	3.42
		Unchahar III	15.95	1.49	3.11	0.05			4.65	2.92
		Jhajjar (Aravali)	20.06	3.97	8.05	(0.15)			11.88	5.92
		Suppl+Rebate				(1.43)			(0.32)	
		<b>NTPC Total</b>	<b>431.90</b>	<b>46.10</b>	<b>98.07</b>	<b>(1.82)</b>	<b>0.00</b>	<b>0.00</b>	<b>142.35</b>	3.30
<b>II</b>	<b>NHPC</b>									
		Chamera I	99.63	6.54	10.04	0.02			16.60	1.67
		Chamera II	21.82	2.83	3.20	0.00			6.04	2.77
		Chamera III	13.24	2.60	2.89	0.00			5.49	4.15
		Dhauliganga	10.32	1.12	1.50	0.01			2.63	2.55
		Dulhasti	24.17	6.23	7.44	0.00			13.68	5.66
		Parbathi III	9.08	0.95	2.44	0.00			3.39	3.73
		Salal	10.55	0.49	0.51	0.00			1.00	0.95
		Sewa II	7.40	1.78	1.73	0.01			3.52	4.76
		Tanakpur	4.55	0.73	0.52	0.00			1.26	2.77
		Uri I	20.24	1.53	1.63	0.00			3.16	1.56
		Uri II	26.59	2.93	2.92	0.00			5.85	2.20
		Suppl+Rebate				9.18			2.30	
		<b>NHPC Total</b>	<b>247.60</b>	<b>27.73</b>	<b>34.82</b>	<b>6.94</b>	<b>0.00</b>	<b>0.00</b>	<b>69.50</b>	2.81
<b>III</b>	<b>NPCIL</b>									
		NAPP	37.25		8.82	0.41			9.23	2.48
		RAPP B	21.92		6.01	0.06			6.07	2.77
		RAPP C	34.58		11.78	0.05			11.84	3.42
		Suppl+Rebate				0.23			0.06	
		<b>NPCIL Total</b>	<b>93.75</b>	<b>0.00</b>	<b>26.62</b>	<b>0.70</b>	<b>0.00</b>	<b>0.00</b>	<b>27.32</b>	2.91
<b>IV</b>	<b>SJVNL</b>									
		Nathpra Jhakri	71.36	9.29	9.79	0.34			19.42	2.72
		Rampur (UQ)	3.40							0.00

**JERC Order for CED for ARR for MYT & Business Plan for FY 2015-16, Review of FY 2014-15**

Sl. No.	Generating Company	Name of the Project	Units (MU)	Capacity Charges (Rs. Cr)	Energy Charges (Rs. Cr)	Other Charges (Rs. Cr)	Arrears/Supp charges (Rs.Cr)	Rebate (Rs. Cr)	Total Charges (Rs. Cr)	Total charges (Rs./kWh)
		Suppl+Rebate				16.77				
		<b>SJVNL Total</b>	<b>74.76</b>	<b>9.29</b>	<b>9.79</b>	<b>17.11</b>	<b>0.00</b>	<b>0.00</b>	<b>36.19</b>	<b>4.84</b>
<b>V</b>	<b>BBMB</b>									
		BBMB 3.5 %	695.00	33.09	195.90	(2.86)			226.13	3.25
		BBMB 1 LU								
		BBMB 10 LU								
		Pong								
		Dehar								
		<b>BBMB Total</b>	<b>695.00</b>	<b>33.09</b>	<b>195.90</b>	<b>(2.86)</b>	<b>0.00</b>	<b>0.00</b>	<b>226.13</b>	<b>3.25</b>
<b>VI</b>	<b>APCPL</b>									
		IGSTPP								
<b>VII</b>	<b>THDC</b>									
		Koteshwar	8.59	1.50	1.75	(0.01)			3.24	3.77
		Tehri	28.62	6.42	6.56	1.35			14.33	5.01
		Suppl+Rebate				0.87				
		<b>THDC Total</b>	<b>37.21</b>	<b>7.92</b>	<b>8.31</b>	<b>2.21</b>	<b>0.00</b>	<b>0.00</b>	<b>18.44</b>	<b>4.96</b>
<b>VIII</b>	<b>Banking</b>	<b>J&amp;K</b>	<b>29.09</b>			<b>0.73</b>			<b>0.73</b>	<b>0.25</b>
<b>IX</b>	<b>Others</b>									
		Bilateral								
		Source								
<b>X</b>	<b>Short Term</b>									
		Power								
		PTC	10.50		3.20				3.20	3.05
		NETL	0.10		0.03				0.03	3.00
		Suppl+Rebate				(0.06)			(0.06)	
		<b>Short term Total</b>	<b>10.60</b>	<b>0.00</b>	<b>3.23</b>	<b>(0.06)</b>	<b>0.00</b>	<b>0.00</b>	<b>3.17</b>	<b>2.99</b>
	Exchange		<b>56.62</b>		<b>21.05</b>				<b>21.05</b>	<b>3.72</b>
	UI (Buy)		<b>216.10</b>		<b>68.36</b>				<b>68.36</b>	<b>3.16</b>
	UI Interest					0.15			0.15	
		<b>Grand Total</b>	<b>1893.0</b>	<b>124.13</b>	<b>466.15</b>	<b>23.10</b>	<b>0.00</b>	<b>0.00</b>	<b>613.24</b>	<b>3.24</b>
		<b>PGCIL and other Charges</b>								
		PGCIL Charges							33.53	
		NRLDC F & C							0.33	
		Reactive Energy Charges							0.06	
		REC cost							11.61	
		<b>Other charges Total</b>							<b>45.53</b>	
		<b>Total Power Purchase Cost</b>	<b>1893</b>	<b>124.13</b>	<b>466.15</b>	<b>23.1</b>	<b>0</b>	<b>0</b>	<b>652.07</b>	<b>3.48</b>

## Commission's Analysis

### Power Purchase Quantum and Cost

As brought out in the section on energy balance, the power purchase quantum approved by the Commission in its last Tariff Order dated April 11<sup>th</sup> 2014 for FY 2014-15 was 1709.84 MU at an approved power purchase cost of Rs. 537.87 Crore including transmission charges.

The Commission as part of prudence check, verified the station-wise power purchase bills for FY 2014-15 (nine months) from April to December. Commission considered the submissions made by the Petitioner after verification of power purchase bills of nine months from April to December of FY 2014-15. The verified quanta of power purchase units and cost including transmission charges is mentioned in the Table below as per the Power purchase bills submitted by the Petitioner for nine months of FY 2014-15:

**Table 5.12: Quantum of Power Purchase and Cost for FY 2014-15 (April to December) – Summary as verified from power purchase bills**

Sl. No.	Source	Actuals (units and amount verified from bills excluding rebate)					
		Energy Units (MU)		Fixed charges (Rs. Cr)	Variable Cost (Rs. Cr)	Other charges (Rs. Cr)	Total (Rs. Cr)
		Petitioner	Approved				
<b>A</b>	<b>Power Purchase from Renewable</b>						
	(2.60% for – Non Solar) RPO (IEX)						
	(0.40% for Solar)						
<b>B</b>	<b>NPCIL</b>						
	NAPS	27.94	27.94		6.62	0.31	6.93
	RAPP (Unit 3 & 4)-B	16.44	16.44		4.51	0.05	4.56
	RAPP (Unit 5 & 6)-C	25.93	25.93		8.84	0.04	8.88
<b>C</b>	<b>Unscheduled Interchange</b>						
<b>D</b>	<b>BBMB</b>						
	BBMB 3.5%	218.72	218.72		3.60		3.60
	BBMB 1 LU	27.5	27.5		10.61		10.61

Sl. No.	Source	Actuals (units and amount verified from bills excluding rebate)					
		Energy Units (MU)		Fixed charges (Rs. Cr)	Variable Cost (Rs. Cr)	Other charges (Rs. Cr)	Total (Rs. Cr)
		Petitioner	Approved				
	<i>BBMB 10 LU</i>	275	275		149.05		149.05
<b>E</b>	<b>THDC</b>						
	<i>Koteshwar</i>	6.44	6.44	1.13	1.31	(0.01)	2.43
	<i>Tehri</i>	21.46	21.46	4.81	4.92	1.02	10.75
	<i>Supp+Rebate</i>						
	<i>Total</i>						
<b>F</b>	<b>SJVNL</b>						
	<i>NATHPA JHAKRI</i>	53.52	53.52	6.97	7.34	0.25	14.56
	<i>RAMPUR (U Q)</i>	2.55	2.55				0.00
	<i>Supp+Rebate</i>					16.77	16.77
	<i>Total</i>						
<b>G</b>	<b>NTPC, NHPC &amp; Other Stations</b>						
	<i>Salal</i>	7.91	7.91	0.37	0.38	0.00	0.75
	<i>Uri I</i>	15.18	15.18	1.15	1.22	0.00	2.37
	<i>Uri II</i>	19.94	19.94	2.19	2.19	0.00	4.38
	<i>Singrauli</i>	24.08	24.08	1.25	2.74	(0.03)	3.96
	<i>Chamera I</i>	74.73	74.73	4.91	7.53	0.01	12.45
	<i>Tanakpur</i>	3.41	3.41	0.55	0.39	0.00	0.94
	<i>Rihand III</i>	39.23	39.23	5.27	6.47	(0.34)	11.40
	<i>Rihand II</i>	56.99	56.99	5.11	9.21	0.01	14.33
	<i>Rihand I</i>	60.96	60.96	5.04	9.49	0.00	14.53
	<i>Chamera II</i>	16.37	16.37	2.12	2.40	0.00	4.52
	<i>Dhauliganga</i>	7.74	7.74	0.84	1.12	0.01	1.97
	<i>Chamara III</i>	9.93	9.93	1.95	2.17	0.00	4.12
	<i>Unchahar III</i>	11.96	11.96	1.12	2.33	0.04	3.49
	<i>Unchahar II</i>	21.43	21.43	1.91	5.42	0.01	7.34
	<i>Unchahar I</i>	14.06	14.06	1.07	3.07	0.01	4.15
	<i>Sewa II</i>	5.55	5.55	1.34	1.30	0.00	2.64
	<i>Dulhasti</i>	18.13	18.13	4.68	5.58	0.00	10.26
	<i>Kahalgaon II</i>	14.83	14.83	1.89	3.71	0.00	5.60
	<i>Dadri II</i>	13.14	13.14	2.10	4.60	0.01	6.71
	<i>Anta</i>	23.24	23.24	2.70	7.47	(0.01)	10.16
	<i>Auriya</i>	13.28	13.28	2.09	6.08	0.02	8.19
	<i>Dadri</i>	15.65	15.65	2.07	6.93	0.00	9.00
	<i>Parbathi III</i>	6.81	6.81	0.71	1.83	0.00	2.54
	<i>Supp+Rebate</i>					6.89	6.89

Sl. No.	Source	Actuals (units and amount verified from bills excluding rebate)					
		Energy Units (MU)		Fixed charges (Rs. Cr)	Variable Cost (Rs. Cr)	Other charges (Rs. Cr)	Total (Rs. Cr)
		Petitioner	Approved				
	<b>APCPL</b>						
	<i>Jajjar</i>	15.04	15.04	2.98	6.04	(0.15)	8.87
<b>H</b>	<b>Other Charges</b>						
	<i>Banking J&amp;K</i>	29.09	29.09			0.73	0.73
	<i>PTC</i>	10.5	10.5		3.20		3.20
	<i>NETL</i>	0.1	0.1		0.03		0.03
	<i>supp+Rebate</i>					(0.07)	(0.07)
	<b>Sub Total</b>						
	<i>Exchange</i>	36.82	36.82		14.22		14.22
	<i>UI Buy</i>	204.66	204.66		66.05		66.05
	<i>UI Interest</i>					0.15	0.15
	<b>Grand Total</b>	<b>1466.26</b>	<b>1466.26</b>	<b>68.32</b>	<b>379.97</b>	<b>25.72</b>	<b>474.01</b>
	<b>PGCIL and other Charges</b>						
	<i>PGCIL Charges</i>						25.98
	<i>NRLDC F &amp; C</i>						0.25
	<i>Reactive Energy Charges</i>						0.04
	<i>REC Cost</i>						10.11
	<b>Total Power Purchase Cost</b>						<b>510.39</b>

The Commission notes that the Solar Power export to the Grid ,from the Solar Roof Tops installed in Chandigarh for which Tariff was decided under Petition No. 133/2014 dated 13 October, 2014 has not been accounted for. The Solar Power fed to the grid also adds to RPO compliance. During True up exercise for FY 2014-15, the Solar Power fed to the Grid shall also make a part of the Energy Balance. The Petitioner during Technical Validation informed that Solar Power received from Solar Roof Tops in Chandigarh till that date is 1.3 MUs.

Accounting errors have been noticed in the documents submitted by the Petitioner during technical validation held on 24-25 March 2015.

The power purchase bills submitted by CED during technical validation held on 24 and 25 of March, 2015, covering the quantum of power and cost towards power purchase i.e., fixed and variable costs of 9 months from April, 2014 to December, 2014 for various Power Stations have been verified and have tallied with the submission of the Petitioner except in case of RAPP 3&4 and Uri I. For these Power Stations, it is noticed that there are minor variations in energy charges and purchase quantum respectively like RAPP 3&4 Energy Charges total up to Rs.4.58 Crore against Rs.4.51 Crore shown by the Petitioner, RAPP 5&6 total has been shown as Rs. 8.84 Crore against actuals of Rs. 8.81 Crore.

However, the values projected by the Petitioner are considered for arriving at power purchase quantum and cost for Review of ARR for FY 2014-15. The data shall be verified again during True-up exercise for FY 2014-15.

These figures shall be covered up in the True up exercise for FY 2014-15.

## **5.8 Power Purchase Quantum and Cost for remaining three months of FY 2014-15**

### **1 Central Generating Stations –NTPC**

While estimating the energy availability from NTPC Stations for remaining three months of FY 2014-15, the following is considered:

- **Allocation of Share:**

The Commission has considered the gross % age of firm allocation and allocation of the unallocated quota made by the Northern Regional Power Committee , from the various generating stations including Singrauli, Rihand I,II & III, Unchahar I,II and III, Kahalgaon, Dadri-II, Anta-G, Anta-RLNG, Auraiya, Auraiya- RLNG, Dadri-G, and Dadri-RLNG as per the actual for first nine months of FY 2014-15.

- **Gross Energy Availability:**

The Commission has estimated the gross energy availability from the existing NTPC stations based on the installed capacity and the average of figures of Plant Load Factor from April to December 2014. The net energy sent out is worked out after

considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009;

- **Energy Available to the Petitioner:**

The effective share from the station has been applied on the energy sent out to arrive at the energy to be purchased by the Petitioner from respective stations. Accordingly, the Commission has approved the availability from NTPC stations based on the merit order dispatch principles;

The Commission has considered the following assumptions to arrive at the Power purchase cost for the remaining three months of the FY 2014-15 from the NTPC stations:

**a) Fixed Charges:**

The fixed charges are considered based on the actuals for FY the 1<sup>st</sup> 9 months of FY 2014-15, and prorate for the rest of the 3 months.

**b) Variable Charges:**

The Commission has considered the average variable cost for the period October 2014 to December 2014 submitted by the Petitioner (verified from the bills) for consideration of the per unit of variable charges.

**2 Central Generating Stations –NHPC**

While estimating the energy availability from NHPC Stations for remaining three months of FY 2014-15, the following is considered:

- **Allocation of Share:**

The Commission has considered the gross %age of firm allocation and allocation of the unallocated quota from the various generating stations including Salal, Tanakpur, Chamera I, II & III, Uri, Dhauliganga, Dulhasti, Sewa II as per the actual for first 9 months of FY 2014-15.

- **Gross Energy Availability:**

The Commission has estimated the gross energy availability from the existing NHPC stations based on the average of actual energy generation for the first nine months of FY 2014-15 after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009.

- **Energy Available to the Petitioner:**

The effective share from the station has been applied on the energy sent out to arrive at the energy to be purchased by the Petitioner from respective stations.

The Commission has considered the following assumptions to arrive at the Power purchase cost for remaining three months of the FY 2014-15 from the NHPC stations:

**a) Fixed Charges:**

The fixed charges are computed in proportion of 9 months of actual billed for each station.

**b) Variable Charges:**

The Commission has considered the average variable cost for the period October 2014 to December 2014 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2014-15.

**3 Central Generating Stations –NPCIL**

While estimating the energy availability from NPCIL Stations for remaining three months of FY 2014-15, the following is considered:

- **Allocation of Share:**

The Commission has considered the gross % age of firm allocation and allocation of the unallocated quota from the various generating stations including NAPS, RAPP (Unit3, 4, 5 & 6) as per the actuals of first 9 months of FY 2014-15.



- **Gross Energy Availability:**

The Commission has estimated the gross energy availability from the existing NPCIL stations based on the installed capacity and the average of figures of Plant Load Factor for the first nine months of FY 2014-15. The net energy sent out is worked out after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009;

- **Energy Available to the Petitioner:**

The effective share from the station has been applied on the energy sent out to arrive at the energy to be purchased by the Petitioner from respective stations.

- **Merit order Dispatch:**

The Commission has considered the nuclear plants as must run and has not subjected them for merit order dispatch.

- **Power Purchase Cost**

The Commission has considered the following assumptions to arrive at the Power purchase cost for remaining three months of the FY 2014-15 from the NPCIL stations:

- **Variable Charges:**

The Commission has considered the average variable cost for the period october 2014 to December 2014 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2014-15.

#### **4 Other Generating Stations –Nathpa Jhakri (SJVNL),BBMB (including Dehar & Pong), Koteshwar and Tehri (THDC) and Jhajjar**

While estimating the energy availability from the above hydro generating stations for the remaining three months of FY 2014-15, the following is considered:

- **Allocation of Share:**

The Commission has considered the gross % age of firm allocation and allocation of the unallocated quota from the above mentioned generating stations except BBMB (including Dehar & Pong) as per the actuals for the first nine months of FY 2014-15.

- **Gross Energy Availability:**

The Commission has estimated the gross energy availability from the existing hydro generating stations based on the average of actual energy generation for the first nine months of FY 2014-15. The net energy sent out is worked out after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009;

- **Energy Available to the Petitioner:**

The effective share from the station has been applied on the energy sent out to arrive at the energy to be purchased by the Petitioner from respective stations.

- **Merit order Dispatch:**

The Commission has considered the availability of 11 LUs (1 LU + 10 LU per day) from BBMB as essential (despite its high cost) keeping in view of fact the CED is deficit in power in current scenario and will not get this confirmed allocation again once it surrenders and thus has not subjected this allocation from BBMB for merit order dispatch.

The Commission has considered the following assumptions to arrive at the power purchase cost for remaining three months of the FY 2014-15 from the above mentioned hydro generating stations and APCPL-IGSTPP:

**a) Fixed Charges:**

The fixed charges are considered in proportion to 9 months actuals from April to December of FY 2014-15.

**b) Variable Charges:**

The Commission has considered the average variable cost for the period September 2014 to December 2014 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2014-15.

- **Renewable Energy Obligation**

As per JERC (Procurement of Renewable Energy) Regulations 2010 clause 1 sub clause (1), each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.

The Petitioner has to purchase 3.30% of total energy purchase from renewable sources for FY 2014-15 including 0.70% for Solar and 2.60% for Non-Solar. For FY 2014-15, the Petitioner has submitted that it has met almost its entire RPO through purchase of Renewable Energy Certificates (RECs) and requested the Commission for approval of Rs. 11.61 Crore for the purchase of RECs during FY 2014-15.

As per the order dated 27 December 2013 in the suo moto petition no. 61/2012, wherein the Commission has stated that:

**Quote:**

*".....The Commission examined the report and observed that the respondent has submitted the report to meet RPO as per the JERC (Procurement of Renewable Energy) Regulations 2010 of back log for FY 2010-11, FY 2011-12, FY 2012-13 and current financial year FY 2013-14 in the format Annexure "A" of the order dated 25.10.2013. The respondent in the report assured the Commission to meet the RPO as per JERC (Procurement of Renewable Energy) Regulations, 2010 of back log for FY 2010-11, FY 2011-12, FY 2012-13 and current year FY 2013-14 in time.*

*Therefore, the Commission directs the respondent to meet RPO as per the JERC (Procurement of Renewable Energy) Regulations, 2010 of backlog for FY 2010-11, FY 2011-12, FY 2012-13 and current FY 2013-14 in time. The Commission further directs the respondent to submit a detailed compliance report to meet RPO backlog for FY 2010-11, FY 2011-12, FY 2012-13 and current year FY 2013-14 by 17.04.2014.*

*In the default, the Commission shall be constrained to proceed under the Regulation 4 of the JERC (Procurement of the Renewable Energy) Regulations 2010 against the licensee/obligated entities.....”*

**Unquote**

The Commission considers the RPO Compliance status from FY 2010-11 onwards as summarized in Table 5.13 below:

**Table 5.13: RPO Compliance Status up to FY 2014-15- Commission’s Analysis**

(MUs)						
Sl. No.	Description	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
1	Sales Within State	1372.08	1301.48	1365.05	1420.16	1499.32
2	<b>RPO Obligation (in %)</b>					
	- Solar	0.25%	0.30%	0.40%	0.40%	0.60%
	-Non Solar	0.75%	1.70%	2.60%	2.60%	2.70%
3	<b>RPO Obligation (in MU)</b>					
	- Solar	3.43	3.90	5.46	5.68	9.00
	-Non Solar	10.29	22.13	35.49	36.92	40.48
4	RPO Compliance (Actual Purchase)					
	- Solar	0	0	0	0	0
	-Non Solar	0	0	0	0	0
5	RPO Compliance (REC Certificate Purchase)					
	- Solar	0	0	2.36	15.89	6.15
	-Non Solar	0	10.75	52.73	43.29	34.75
6	Total RPO Compliance					
	- Solar	0	0	2.36	15.89	6.15
	-Non Solar	0	10.75	52.73	43.29	34.75
7	Shortfall in RPO Compliance Shortfall shown(-)					
	- Solar	-3.43	-3.90	-3.10	-10.21	-2.85
	-Non Solar	-10.29	-11.38	17.24	6.37	-5.73
8	Cumulative Shortfall in RPO Compliance Shortfall shown (-)					
	- Solar	-3.43	-7.33	-10.43	-0.23	-3.07
	-Non Solar	-10.29	-21.67	-4.43	1.94	-3.79
9	<b>Floor Price of REC Certificates /MWH</b>					
	- Solar				<b>9300</b>	<b>9300</b>

Sl. No.	Description	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15
	<i>-Non Solar</i>				1500	1500
10	<b>Provision for meeting shortfall in RPO Compliance</b>					
	<i>- Solar</i>	0			0	5.39
	<i>-Non Solar</i>	0			0	4.23
	<i>-Total</i>	0			0	9.62

Relying on the progress reports submitted by the Petitioner against the suo moto petition 61/2010, it is observed that the Petitioner has already ensured partial compliance of RPO since FY 2011-12 onwards including backlog of RPO Compliance. The RPO Compliance data for fourth quarter of FY 2014-15 is not available with the Commission. The same shall be examined at the time of True up of ARR for FY 2014-15. The Petitioner has also to send the quarterly progress report on the same under suo moto Petition no. 61/ 2012 also. The Floor Price and Forbearance price of Solar RECs have been revised w.e.f 30.12.2014 as Rs. 3500 and Rs. 5800 respectively as per CERC Order on Petition No. SM/016/2014 (Suo Motu) dated December 30<sup>th</sup> 2014. The Petitioner is also receiving Solar Power fed into the UT's Grid from Roof Tops in Chandigarh. The Solar Tariff for the Roof Tops commissioned is as per the Commission's Tariff Order No. 133/2014 dated October 13<sup>th</sup> 2014 (Tariff Rs. 6.80/kWh w/o Accelerated Depreciation). The Petitioner during technical validation confirmed that on February 15<sup>th</sup>, 2015, it has purchased 1000 Solar RECs on March 15<sup>th</sup>, 2015 and 3000 Non-Solar RECs at Floor Price. In addition, 1.3 MU have been received by that date (March 25<sup>th</sup>, 2015) as Solar Power from Roof Top Projects in Chandigarh that was exported to the Grid.

Since REC cost to the extent of Rs. 10.11 Crore is already provided for the first nine months no further REC is considered for the next three months of FY 2014-15. Any credit/deficit of RPO compliance will be carried forward to FY 2015-16.

**Transmission Charges (PGCIL, NRLDC F&C and Reactive Energy Charges)**

PGCIL, NRLDC and Reactive charge are considered as proportion to the actuals of nine months charges.

The Commission also allows the Petitioner's claim of other charges for the remaining months of FY 2014-15 including NRLDC, Reactive Energy Charges as projected by the Petitioner which are less than the prorata charges of the first nine months.

Accordingly, the total transmission charges approved for the remaining three months of FY 2014-15 are Rs. 7.63 Crore.

Table 5.14: Approved Power purchase quantum from above mentioned stations under merit order dispatch for remaining three months of FY 2014-15 (RE)

Sl. No.	Source	Capacity (MW)	Average PLF/Gross Generation	Latest Entitlement		Gross Generation (MUs)	Auxiliary Consumption (%)	Net Generation (MUs)	Purchase (MUs)	PGCIL Losses (MUs)	Energy available at periphery (MUs)	Merit Order purchase for 3 months
				%	MW							
<b>A</b>	<b>Power Purchase from Renewable</b>											
1	<i>(2.60% for - NonSolar) RPO (IEX)</i>											
2	<i>(0.40% for Solar)</i>											
<b>B</b>	<b>NPCIL</b>											
1	NAPS	440	65.42	1.63%	7.17	630.39	10.00%	567.35	9.25	0.35	8.90	9.25
2	RAPP (Unit 3 & 4)-B	440	94.78	0.66%	2.90	913.30	10.00%	821.97	5.43	0.21	5.22	5.43
3	RAPP (Unit 5 & 6)-C	440	69.51	1.43%	6.29	669.80	10.00%	602.82	8.62	0.33	8.29	8.62
<b>C</b>	<b>Unscheduled Interchange</b>											
<b>D</b>	<b>BBMB</b>											
	BBMB 3.5%	1325	10527.48	3.50%	46.38	2595.82	2.00%	2543.90	73.00	2.76	70.24	73.00
	BBMB 1 LU				41.67				9.00			9.00
	BBMB 10 LU				4.17				90.00			90.00
	PONG				13.86							
	DEHAR				34.65							
<b>E</b>	<b>THDC</b>											
	Koteshwar	400	36.08	0.69%	2.76	316.06	2.00%	309.74	2.14	0.08	2.06	2.14
	Tehri	1000	35.68	0.93%	9.30	781.39	2.00%	765.76	7.12	0.27	6.85	7.12

Sl. No.	Source	Capacity (MW)	Average PLF/Gross Generation	Latest Entitlement		Gross Generation (MUs)	Auxiliary Consumption (%)	Net Generation (MUs)	Purchase (MUs)	PGCIL Losses (MUs)	Energy available at periphery (MUs)	Merit Order purchase for 3 months
				%	MW							
	<i>Supp+Rebate</i>											
	<i>Total</i>											
<b>F</b>	<b>SJVNL</b>											
	<i>NATHPA JHAKRI</i>	1500	62.89	0.87%	13.05	2065.94	1.20%	2041.15	17.76	0.67	17.09	17.76
	<i>RAMPUR (U Q)</i>	412	30.55	0.31%	1.28	275.65	1.20%	272.34	0.84	0.03	0.81	0.84
	<i>Supp+Rebate</i>											
	<i>Total</i>											
	<b>NTPC, NHPC &amp;</b>											
<b>G</b>	<b>Other Stations</b>											
	<i>Salal</i>	690	65.09	0.27%	1.86	983.57	1.00%	973.74	2.63	0.10	2.53	2.63
	<i>Uri I</i>	480	78.12	0.62%	2.98	821.20	1.20%	811.34	5.03	0.19	4.84	5.03
	<i>Uri II</i>	240	111.60	1.14%	2.74	586.57	1.20%	579.53	6.62	0.25	6.37	6.62
	<i>Singrauli</i>	2000	84.41	0.23%	4.66	3697.16	7.25%	3429.11	7.99	0.30	7.69	7.99
	<i>Chamera I</i>	540	54.42	3.90%	21.06	643.57	1.20%	635.85	24.80	0.94	23.86	24.80
	<i>Tanakpur</i>	94	43.49	1.28%	1.20	89.53	1.00%	88.63	1.13	0.04	1.09	1.13
	<i>Rihand III</i>	1000	79.17	0.83%	8.25	1733.82	9.00%	1577.78	13.02	0.49	12.52	13.02
	<i>Rihand II</i>	1000	92.12	1.05%	10.50	2017.43	9.00%	1835.86	19.28	0.73	18.55	19.28
	<i>Rihand I</i>	1000	81.18	1.23%	12.30	1777.84	7.50%	1644.50	20.23	0.76	19.46	20.23
	<i>Chamera II</i>	300	65.38	1.28%	3.84	429.55	1.20%	424.39	5.43	0.21	5.23	5.43
	<i>Dhauliganga</i>	290	33.25	1.23%	3.57	211.17	1.20%	208.64	2.57	0.10	2.47	2.57
	<i>Chamara III</i>	120	114.50	1.11%	1.33	300.91	1.20%	297.30	3.30	0.12	3.18	3.30
	<i>Unchahar III</i>	210	124.46	0.76%	1.60	572.39	9.00%	520.88	3.96	0.15	3.81	3.96
	<i>Unchahar II</i>	420	85.77	0.99%	4.16	788.91	9.00%	717.91	7.11	0.27	6.84	7.11
	<i>Unchahar I</i>	420	97.95	0.57%	2.39	900.94	9.00%	819.86	4.67	0.18	4.50	4.67



Sl. No.	Source	Capacity (MW)	Average PLF/Gross Generation	Latest Entitlement		Gross Generation (MUs)	Auxiliary Consumption (%)	Net Generation (MUs)	Purchase (MUs)	PGCIL Losses (MUs)	Energy available at periphery (MUs)	Merit Order purchase for 3 months
				%	MW							
	<i>Sewa II</i>	120	52.86	1.34%	1.61	138.92	1.20%	137.25	1.84	0.07	1.77	1.84
	<i>Dulhasti</i>	390	73.55	0.98%	3.82	628.19	1.20%	620.65	6.08	0.23	5.85	6.08
	<i>Kahalgaon II</i>	1500	80.11	0.20%	3.00	2631.61	6.50%	2460.56	4.92	0.19	4.74	4.92
	<i>Dadri II</i>	980	83.06	0.26%	2.55	1782.63	6.00%	1675.68	4.36	0.16	4.19	4.36
	<i>Anta</i>	419.33	51.20	1.69%	7.09	470.19	3.00%	456.08	7.71	0.29	7.42	7.71
	<i>Auriya</i>	663	28.45	1.10%	7.29	413.09	3.00%	400.69	4.41	0.17	4.24	3.40
	<i>Dadri</i>	829.78	34.67	0.85%	7.05	630.03	3.00%	611.13	5.19	0.20	5.00	5.19
	<i>Parbathi III</i>	520	18.10	1.11%	5.77	206.12	1.20%	203.65	2.26	0.09	2.18	2.26
<b>H</b>	<b>APCPL</b>											
	<i>Jajjar</i>	1500	66.78	0.25%	3.75	2193.72	9.00%	1996.29	4.99	0.19	4.80	4.99
<b>I</b>	<b>Other Charges</b>											
	<i>PTC</i>											0
	<i>J&amp;K</i>											
	<i>NETL</i>											
	<b>Sub Total</b>											
	<i>Exchange</i>								13	0.49	12.51	13.00
	<i>UI Buy</i>								12	0.45	11.55	12.00
	<i>UI Interest</i>											
	<b>Power Purchase Quantum</b>								<b>417.68</b>	<b>12.05</b>	<b>306.63</b>	<b>416.7</b>

**Table 5.15: Approved Power purchase cost from above mentioned stations under merit order dispatch for remaining three months of FY 2014-15**

Sl. No.	Source	Merit Order Purchase for 3 Months					
		Energy Units (MU)	Fixed charges (Rs. Cr)	Variable Charges (Rs/kWh)	Variable Cost (Rs. Cr)	Other charges (Rs. Cr)	Gross Total (Rs. Cr)
<b>A</b>	<b>Power Purchase from Renewable</b>						
	<i>(2.60% for - Non Solar) RPO (IEX)</i>						
	<i>(0.40% for Solar)</i>						
<b>B</b>	<b>NPCIL</b>						
	<i>NAPS</i>	9.27		2.37	2.20		2.20
	<i>RAPP (Unit 3 &amp; 4)-B</i>	5.43		2.74	1.49		1.49
	<i>RAPP (Unit 5 &amp; 6)-C</i>	8.62		3.41	2.94		2.94
<b>C</b>	<b>Unscheduled Interchange</b>						
<b>D</b>	<b>BBMB</b>						
	<i>BBMB 3.5%</i>	73.00		0.17	1.20		1.20
	<i>BBMB 1 LU</i>	9.00		3.86	3.47		3.47
	<i>BBMB 10 LU</i>	90.00		5.42	48.78		48.78
<b>E</b>	<b>THDC</b>						
	<i>Koteshwar</i>	2.14	0.38	1.95	0.42		0.80
	<i>Tehri</i>	7.12	1.60	2.30	1.64		3.24
	<i>Supp+Rebate</i>						
	<i>Total</i>						
<b>F</b>	<b>SJVNL</b>						
	<i>NATHPA JHAKRI</i>	17.76	2.32	1.44	2.56		4.88
	<i>RAMPUR (U Q)</i>	0.84		0.00	0.00		0.00
	<i>Supp+Rebate</i>						0.00
	<i>Total</i>						
<b>G</b>	<b>NTPC, NHPC &amp; Other Stations</b>						
	<i>Salal</i>	2.63	0.12	0.48	0.13		0.25
	<i>Uri I</i>	5.03	0.38	0.80	0.40		0.78
	<i>Uri II</i>	6.62	0.73	1.55	1.03		1.76
	<i>Singrauli</i>	7.99	0.42	1.23	0.98		1.40
	<i>Chamera I</i>	24.80	1.64	0.90	2.23		3.87
	<i>Tanakpur</i>	1.13	0.18	1.15	0.13		0.31
	<i>Rihand III</i>	13.02	1.76	1.73	2.25		4.01
	<i>Rihand II</i>	19.28	1.70	1.73	3.33		5.03
	<i>Rihand I</i>	20.23	1.68	1.66	3.36		5.04

Sl. No.	Source	Merit Order Purchase for 3 Months					Gross
		Energy	Fixed	Variable	Variable	Other	
	<i>Chamera II</i>	5.43	0.71	1.40	0.76		1.47
	<i>Dhauliganga</i>	2.57	0.28	1.45	0.37		0.65
	<i>Chamara III</i>	3.30	0.65	2.07	0.68		1.33
	<i>Unchahar III</i>	3.96	0.37	1.43	0.57		0.94
	<i>Unchahar II</i>	7.11	0.64	2.19	1.56		2.20
	<i>Unchahar I</i>	4.67	0.36	2.21	1.03		1.39
	<i>Sewa II</i>	1.84	0.45	2.34	0.43		0.88
	<i>Dulhasti</i>	6.08	1.56	3.08	1.87		3.43
	<i>Kahalgaon II</i>	4.92	0.63	2.42	1.19		1.82
	<i>Dadri II</i>	4.36	0.70	3.87	1.69		2.39
	<i>Anta</i>	7.71	0.90	3.44	2.65		3.55
	<i>Auriya</i>	3.40	0.70	4.47	1.52		2.22
	<i>Dadri</i>	5.19	0.69	4.36	2.26		2.95
	<i>Parbathi III</i>	2.26	0.24	3.18	0.72		0.96
	<i>Supp+Rebate</i>						0.00
	<b>APCPL</b>						
	<i>Jajjar</i>	4.99	0.99	4.23	2.11		3.10
	<b>Other Charges</b>						
	<i>Banking J&amp;K</i>						0.00
	<i>PTC</i>						0.00
	<i>NETL</i>						0.00
	<i>supp+Rebate</i>						0.00
	<b>Sub Total</b>						
	<i>Exchange</i>	13		3.45	4.49		4.49
	<i>UI Buy</i>	12		2.02	2.42		2.42
	<i>UI Interest</i>						0.00
	<b>Grand Total</b>	<b>416.70</b>	<b>22.78</b>		<b>104.87</b>	<b>0.00</b>	<b>127.65</b>
	<b>PGCIL and other charges</b>						
	<i>PGCIL Charges</i>						7.55
	<i>NRLDC F &amp; C</i>						0.07
	<i>Reactive Energy Charges</i>						0.01
	<i>REC Cost</i>						0
	<b>Sub Total</b>						<b>7.63</b>
	<b>Total Power Purchase Cost</b>						<b>135.28</b>

- **Power Purchase Cost approved for FY 2014-15**

For determining the power purchase cost, merit order dispatch principles have been applied. The must-run stations have been assumed at the top of the merit order and variable cost incurred for meeting the energy requirement within the state has been calculated from the plants at the top of the merit order. The transmission charges for FY 2014-15 for the remaining three months have been considered as per the POC charges applicable for FY 2014-15 and first nine months as per the submissions made by the Petitioner based on the actuals.

The Commission has considered the actual transmission charges paid by the licensee from April 2014 to December 2014 and has estimated the transmission charges from January 2014 to March 2015 on pro-rata basis.

In accordance with the foregoing paragraphs the Commission approves the following Power Purchase Cost for FY 2014-15.

Based on the above, the total Power purchase quantum and cost from various sources (including over-drawal of Power under UI mechanism and transmission charges) as approved for review of FY 2014-15 is mentioned below:

**Table 5.16: FY 2014-15 Power Purchase cost on MOD principles – Commission’s Approval**

Sl. No.	Source	Merit Order Purchase at Approved Losses				
		Energy Units (MU)	Fixed charges (Rs. Cr)	Variable charges (Rs. Cr)	Other charges (Rs. Cr)	Gross Total (Rs. Cr)
<b>A</b>	<b>Power Purchase from Renewable</b>					
	<i>(2.60% for - Non Solar) RPO (IEX)</i>					
	<i>(0.40% for Solar)</i>					
<b>B</b>	<b>NPCIL</b>					
	NAPS	37.21	0.00	8.82	0.31	9.13
	RAPP (Unit 3 & 4)-B	21.87	0.00	6.00	0.05	6.05
	RAPP (Unit 5 & 6)-C	34.55	0.00	11.78	0.04	11.82
					0.00	0.00
						0.00

Sl. No.	Source	Merit Order Purchase at Approved Losses				
		Energy Units (MU)	Fixed charges (Rs. Cr)	Variable charges (Rs. Cr)	Other charges (Rs. Cr)	Gross Total (Rs. Cr)
<b>C</b>	<b>Unscheduled Interchange</b>					0.00
						0.00
<b>D</b>	<b>BBMB</b>					0.00
	<i>BBMB 3.5%</i>	291.72	0.00	4.80	0.00	4.80
	<i>BBMB 1 LU</i>	36.50	0.00	14.08	0.00	14.08
	<i>BBMB 10 LU</i>	365.00	0.00	197.83	0.00	197.83
	<i>PONG</i>					0.00
	<i>DEHAR</i>					0.00
						0.00
<b>E</b>	<b>THDC</b>					0.00
	<i>Koteshwar</i>	8.58	1.51	1.73	(0.01)	3.23
	<i>Tehri</i>	28.58	6.41	6.56	1.02	13.99
	<i>Supp+Rebate</i>				0.00	0.00
	<i>Total</i>					0.00
						0.00
<b>F</b>	<b>SJVNL</b>					0.00
	<i>NATHPA JHAKRI</i>	71.28	9.29	9.90	0.25	19.44
	<i>RAMPUR (U Q)</i>	3.39	0		0.00	0.00
	<i>Supp+Rebate</i>				16.77	16.77
	<i>Total</i>					
<b>G</b>	<b>NTPC, NHPC &amp; Other Stations</b>					0.00
	<i>Salal</i>	10.54	0.49	0.51	0.00	1.00
	<i>Uri I</i>	20.21	1.53	1.62	0.00	3.15
	<i>Uri II</i>	26.56	2.92	3.22	0.00	6.14
	<i>Singrauli</i>	32.07	1.67	3.72	(0.03)	5.36
	<i>Chamera I</i>	99.53	6.55	9.76	0.01	16.32
	<i>Tanakpur</i>	4.54	0.73	0.52	0.00	1.25
	<i>Rihand III</i>	52.25	7.03	8.72	(0.34)	15.41
	<i>Rihand II</i>	76.27	6.81	12.54	0.01	19.36
	<i>Rihand I</i>	81.19	6.72	12.85	0.00	19.57
	<i>Chamera II</i>	21.80	2.83	3.16	0.00	5.99
	<i>Dhauliganga</i>	10.31	1.12	1.49	0.01	2.62
	<i>Chamera III</i>	13.23	2.6	2.85	0.00	5.45
	<i>Unchahar III</i>	15.92	1.49	2.90	0.04	4.43
	<i>Unchahar II</i>	28.54	2.55	6.98	0.01	9.54
	<i>Unchahar I</i>	18.73	1.43	4.10	0.01	5.54
	<i>Sewa II</i>	7.39	1.79	1.73	0.00	3.52
	<i>Dulhasti</i>	24.21	6.24	7.45	0.00	13.69
	<i>Kahalgau II</i>	19.75	2.52	4.90	0.00	7.42

Sl. No.	Source	Merit Order Purchase at Approved Losses				
		Energy Units (MU)	Fixed charges (Rs. Cr)	Variable charges (Rs. Cr)	Other charges (Rs. Cr)	Gross Total (Rs. Cr)
	<i>Dadri II</i>	17.50	2.8	6.29	0.01	9.10
	<i>Anta</i>	30.95	3.6	10.12	(0.01)	13.71
	<i>Auriya</i>	16.68	2.79	7.60	0.02	10.41
	<i>Dadri</i>	20.84	2.76	9.19	0.00	11.95
	<i>Parbathi III</i>	9.07	0.95	2.55	0.00	3.50
	<i>Supp+Rebate</i>	0.00	0		6.89	6.89
	<b>APCPL</b>					
	<i>Jajjar</i>	20.03	3.97	8.15	(0.15)	11.97
	<b>Other Charges</b>					0.00
	<i>Banking J&amp;K</i>	29.09	0		0.73	0.73
	<i>PTC</i>	10.5	0	3.20	0.00	3.20
	<i>NETL</i>	0.1	0	0.03	0.00	0.03
	<i>supp+Rebate</i>		0	0.00	(0.07)	(0.07)
	<b>Sub Total</b>			0.00		0.00
						0.00
	<i>Exchange</i>	49.82	0	18.71	0.00	18.71
	<i>UI Buy</i>	216.66	0	68.47	0.00	68.47
	<i>UI Interest</i>	0	0	0.00	0.15	0.15
	<b>Grand Total</b>	<b>1882.96</b>	<b>91.1</b>	<b>484.84</b>	<b>25.72</b>	<b>601.66</b>
	<b>PGCIL and other charges</b>					
	<i>PGCIL Charges</i>					33.53
	<i>NRLDC F &amp; C</i>					0.32
	<i>Reactive Energy Charges</i>					0.05
	<i>REC Cost</i>					10.11
	<b>Total Power Purchase Cost</b>					<b>645.67</b>

**Commission's Analysis / Approval of Power Purchase Cost:**

The Petitioner has projected a power purchase cost of Rs. 652.07 crore (Table 5.11), but the total works out to Rs. 658.92 crore. The Commission has analysed the same and found the difference of Rs 13.25 crore (NTPC and NHPC cost difference Rs. 1.53 crore, Power exchange Rs. 2.34 Crore, BBMB Rs. 9.42 crores). This will be examined at the time of True up.

## 5.9 Operations and Maintenance Expenses- FY 2014-15

### Petitioner's submission

The Petitioner has submitted that Operation and Maintenance expenses consist of three elements viz., Employee Expenses, A&G Expenses and R&G Expenses.

#### 5.9.1 Employees Expenses

The Petitioner has projected the Employee cost at Rs. 58.65 Crore for the Review for FY 2014-15 against Rs. 59.75 Crore approved in the Tariff Order dated April 11<sup>th</sup> 2014 as detailed in the Table 5.17 below:

**Table 5.17: Employees Expenses (RE) for FY 2014-15 – Petitioner's Submission**

Particulars	(Rs. Cr)	
	Actual	Estimate for Whole Year
Basic Pay	20.11	24.33
Dearness allowance	22.52	27.25
House Rent Allowance	2.14	2.59
Fixed Medical Allowance	0.51	0.61
Medical Reimbursement Charges	0.28	0.49
Other Allowances	2.40	2.51
Stipend	0.02	0.02
Travelling Allowance	0.01	0.01
Sub-Total-A	48.00	57.82
Leave Encashment	0.83	0.83
Sub-Total-B	0.83	0.83
<b>Total Employees' Expenses</b>	<b>48.83</b>	<b>58.65</b>

The Petitioner has submitted actual employees' expenses as incurred by the CED in three quarters of FY 2014-15 as given in the above Table. The three months employees expenses are computed in the same proportion as incurred in first nine months of the FY 2014-15. The CED has requested the Commission to approve the same for review for FY 2014-15

The Petitioner has also submitted the details of the number of employees for FY 2014-15 as detailed in the Table 5.18 below:

**Table 5.18: No. of Employees for FY 2014-15 - Petitioner's Submission**

		(Rs. Cr.)
SL. No	Particulars	Estimated
1	No of Employees as on 1st April 2014	1065
2	No of Employees added during the year	
3	Employees on deputation added during the year	
4	Total No OF Employees (1+2+3)	1065
5	No of Employees Retired during the year	40
6	No of Employees at the end of FY 2014-15 (4-5)	1025

### Commission's Analysis

The Employee Cost estimated by the CED in the Review for FY 2014-15 is marginally lower than that approved in the Tariff Order dated April 11<sup>th</sup> 2014. The Commission finds that the number of employees has come down from 1065 to 1025 during the FY 2014-15 as furnished by the CED in their Petition.

The Commission has therefore considered Rs. 58.65 Crore towards employee expenses for the review for the FY 2014-15 as detailed in the Table 5.19 below:

**Table 5.19: Employees' Expenses(RE) considered for FY 2014-15 - Commission's Approval**

(Rs. Cr)				
SL. No.	Particulars	Approved by the Commission as per Tariff order 11 <sup>th</sup> April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
1	Employee Expenses	59.75	58.65	58.65

### 5.8.2 Administration and General Expenses

#### Petitioner's submission

The Petitioner has projected A&G Expenses at Rs. 2.62 Crore in Review for FY 2014-15 against Rs. 2.58 Crore approved for the year in Tariff Order dated April 11<sup>th</sup> 2014 as detailed in the Table below:

**Table 5.20: A&G Expenses (RE) for FY 2014-15 - Petitioner's Submission**

		(Rs. Cr.)	
Particulars	Actual	Estimate for Whole Year	
Rent, Rates & Taxes & Freight			
Telephone Charges	0.111	0.148	
Officer Expenses	1.033	1.377	
Insurance	0.000	0.000	



Particulars	Actual	Estimate for Whole Year
Regulatory Expenses (License + Petition Fees)	0.022	0.029
Consultancy Fees and Other Professional Fees	0.003	0.004
Electricity & Water Charges	0.260	0.347
Advertisement & Publicity	0.073	0.098
Legal, Professional & Special Service Charges	0.014	0.018
Expenses of CGRF (office)	0.000	0.000
Registration Charges -PGCIL etc	0.000	0.000
Other material related expenses	0.044	0.058
Sub-Total	1.560	2.080
Add/Deduct share of others (to be specified) wages	0.405	0.540
<b>Total Expenses</b>	<b>1.960</b>	<b>2.620</b>

The Petitioner has submitted the actual Administration and General Expenses as incurred by the CED in the first nine months of FY 2014-15. The three months (the last quarter of FY 2014-15) Administration and General Expenses are computed in the same proportion as incurred in first nine months of the FY 2014-15 for review and requested the Commission to approve the same for FY 2014-15 (RE).

#### Commission's Analysis

The CED has considered A&G Expenses at Rs. 2.62 Crore based on the actual for nine months during the year which are marginally higher than that approved in the Tariff Order dated April 11<sup>th</sup> 2014. The A&G Expenses are controllable in nature and therefore the Commission retains these expenses at Rs. 2.58 Crore as approved in the Tariff Order dated April 11<sup>th</sup>, 2014.

**Table 5.21: A&G Expenses considered for FY 2014-15**

(Rs. Cr.)

Sl. No.	Particulars	Approved by the Commission as per Tariff order 11 April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
1	A&G Expenses	2.58	2.62	2.58

### 5.8.3 Repair and Maintenance Expenses

#### Petitioner's submission

The Petitioner has projected the R&M Expense at Rs.10.81 Crore in the Review for FY 2014-15 against Rs. 10.68 Crore approved for the year in the Tariff Order dated April 11<sup>th</sup> 2014 as detailed in the Table 5.22 below:

**Table 5.22: R&M Expenses (RE) for FY 2014-15- Petitioner's Submission**

Particulars	(Rs. Cr)	
	Actual	Estimate for Whole Year
Plant & Apparatus		
EHV substations	0.32	0.43
33kv substation	0.03	0.03
11 kv substation	0.12	0.16
Switchgear and cable connections	0.65	0.86
Others	2.85	3.80
Total	3.96	5.28
Buildings (Electricity Residential & Non-Residential)	0.44	0.58
Hydraulic works & civil works		
Line cable & network		
EHV Lines		
33kV lines		
11kV lines	0.02	0.03
LT lines	2.42	3.22
Meters and metering equipment	0.01	0.01
Others	0.04	0.05
Total	2.48	3.31
Vehicles	0.87	1.17
Furniture & Fixtures		
Officer equipment	0.06	0.08
Minor R&M Works		
Sub-Total	7.82	10.42
Add/Deduct share of others (To be specified)	0.29	0.39
<b>Total R &amp; M expenses</b>	<b>8.11</b>	<b>10.81</b>

The Petitioner has submitted the actual Repair and Maintenance Expenses as incurred by the CED in the first nine months of FY 2014-15 as given in the above Table. The three months Repair and Maintenance Expenses are computed in the same proportion as incurred in the first nine months of the FY 2014-15.

### Commission's Analysis

The R&M expenses projected in the Review are marginally higher than that approved in the Tariff Order. The R&M Expenses are controllable in nature and the Commission, therefore retains the R&M Expenses at 10.68 Crore in the Review as approved in the Tariff Order dated April 11<sup>th</sup>, 2014.

**Table 5.23: R&M Expenses (RE) considered for FY 2014-15- Commission's Analysis**

(Rs. Cr)

Sl. No.	Particulars	Approved by the Commission as per Tariff order 11 <sup>th</sup> April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
1	R&M Expenses	10.68	10.81	10.68

Based on the above the revised estimated O&M expenses for the Review for FY 2014-15 as compared to expenses approved by the Commission in the Tariff order dated April 11<sup>th</sup>, 2014 are shown in the Table below.

**Table 5.24: O&M expenses for FY 2014-15 (RE) – Commission's Approval**

(Rs. Cr)

Particulars	Approved by the Commission as per Tariff order 11 <sup>th</sup> April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
Employees' Expenses	59.75	58.65	58.65
Administration and General	2.58	2.62	2.58
Repair and Maintenance Expenses	10.68	10.81	10.68
Total Operation and Maintenance Expenses	73.02	72.07	71.91

## 5.9 GFA and Depreciation FY 2014-15

### Petitioner's submission

The Petitioner has submitted the opening assets for FY 2014-15 as per CED Proforma accounts at Rs. 417.78 Crore. There has been addition of Rs. 7.64 Crore in the first nine months of FY 2014-15. The CED doesn't expect any further capitalization in the remaining three months of the year. In the absence of the Fixed Asset Register and audited annual accounts, the Commission had disallowed the GFA in previous Tariff Order and has therefore not considered the same for ARR determination process. The CED has submitted that it is making every effort to comply with the Commission's direction on preparing the Fixed Asset Register and tendering is under process and requested the Commission to approve the fixed assets in the table below provisionally and approve the actual after Fixed Assets Register is submitted. This would not put one time extra burden on UT of

Chandigarh consumers when the Commission approves all the fixed assets in one go in future and requested the Commission to approve the depreciation as proposed in the petition. The actual capital expenditure incurred by the Petitioner is shown in the Table 5.25 below.

**Table 5.25: Assets Addition (RE) for FY 2014-15 – Petitioner’s Submission**

(Rs. Cr.)		
Particulars	Approved in the TO dated 11 April, 2014	Estimated
Transformers		6.97
Meters		0.67
Total	39.6	7.64

The CED has stated that the depreciation for FY 2014-15 is estimated on the average rate of 5.28% and requested to approve the opening and closing balance of the assets and deprecation as computed below:

**Table 5.26: Actual and Estimated Depreciation for FY 2014-15 – Petitioner’s Submission**

(Rs. Cr.)		
Particulars	Approved in the TO dated 11 <sup>th</sup> April, 2014	Estimated
Opening Assets at the Beginning of the year	58.00	417.78
Addition of assets during the year	39.6	7.64
Gross Fixed assets at the end of the year	97.59	425.42
Average Assets	77.8	421.6
Average Rate of Depreciation	5.28%	5.28%
Depreciation for the year	4.11	22.26

### Commission’s Analysis

The Petitioner has stated that in the absence of Fixed Asset Registers, the asset wise details are not available and the details are being integrated and will be furnished in future filings. The Commission is of the view that in the absence of Fixed Asset Registers, the opening value of fixed assets is on assumption basis.

As per Regulation 26 of JERC (Terms and conditions for determination of Tariff), Regulation 2009, depreciation shall be computed on historical cost of the assets including additions during the year.

The CED was directed in its previous Tariff Orders to conduct the physical inventory of assets and construct asset /depreciation registers and file the same along with next tariff petition but the same has not been submitted till date by the Petitioner. The Petitioner has projected the capital expenditure of Rs. 7.64 Crore for the FY 2014-15. As indicated in earlier Para, it is provisionally considered to capitalize Rs. 7.64 Crore during the FY 2014-15 for review.

Regulation 26 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 specifies that depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The effective rate of depreciation for distribution assets is 5.28% vide Appendix-III (Depreciation schedule of CERC (Terms and Conditions of Tariff) Regulations, 2009. In the absence of Fixed Asset Register and record of assets not being available, the Commission has considered the opening value of assets as approved by the Commission in Tariff Order dated April 11<sup>th</sup> 2014 with additions during FY 2014-15, and depreciation is arrived as shown in the Table below:

**Table 5.27: GFA & Depreciation : FY 2014-15 – Commission’s Analysis**

(Rs. Cr)

Sl. No.	Particulars	Approved by the Commission as per Tariff order 11 April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
1	Opening Value of Assets at the	58.00	421.06	58.00
2	Additions during the year	39.6	39.6	7.64
3	Gross Fixed Assets at the end of year	97.59	460.66	65.64
4	Average Assets	77.8	440.86	61.82
5	Average Rate of	5.28%	5.28%	5.28%
6	Depreciation for the year	4.11	23.28	3.26

The Commission is aggrieved to note that the approval by the Commission in respect of Sl.No. 2 in the above Table is not fully utilized. The Commission directs the Petitioner to put in all efforts to utilize these funds fully for improving SoP.

The Commission however, approves the Depreciation at Rs. 3.26 Crore in the review for FY 2014-15.

#### 5.10 Interest on Normative Loan FY 2014-15

##### Petitioner's submission

The Petitioner has submitted that the entire capital expenditure incurred by CED has been funded through equity infusion by GOI through budgetary support without any external borrowings. As per Regulation 25 of JERC Tariff Regulations, 2009, the interest rate on the amount of equity above 30% treated as loan shall be the weighted average rate of interest on loan capital of the licensee. Therefore, for the purpose of determination of ARR, CED has considered debt equity ratio of 70:30 for estimating normative loan for FY 2014-15. Depreciation has been considered as repayment for the year. The interest at the SBI PLR rate of 14.75% as on 1 April, 2014 has been applied on the average normative debt in order to project the amount of normative interest on normative long-term loans for FY 2014-15. The Petitioner request the Commission to approve the interest on normative loans as computed in the table 5.28 below:

**Table 5.28: Earlier Approved and Estimated Interest on Normative Loan for FY 2014-15 – Petitioner's Submission**

Particulars	(Rs. Cr)	
	Approved in the TO dated 11 April, 2014	Estimated
Opening Normative Loan	41.91	270.63
Add: Normative Loan during the year	27.72	5.35
Less: Normative Repayment	4.19	22.26
Closing Normative Loan	65.44	253.72
Average Normative Loan	53.68	262.17
Rate of Interest (SBAR rate)	14.75%	14.75%
<b>Interest on Normative Loan including bank charges</b>	<b>7.92</b>	<b>38.67</b>

### Commission's Analysis

The Petitioner has claimed interest on normative loan considering the repayment as equivalent to depreciation charges by considering debt-equity ratio of 70:30 of gross fixed assets. But the gross fixed assets and the normative loan considered by the Petitioner are on assumption basis in the absence of Fixed Asset Register. The Commission has therefore taken into consideration the opening balance of loan at Rs. 41.91 Cr as approved in the ARR for FY 2014-15 in the Tariff Order dated April 11<sup>th</sup>, 2014. The Commission has also taken into consideration normative loan of Rs. 5.35 Cr towards 70% of the assets of Rs. 7.64 Cr as projected by the CED for capitalisation. The repayment of loan is considered equivalent to depreciation approved in the Review. The Commission has considered the SBI-PLR as per Regulation 29(4) of JERC Determination of Tariff Regulations 2009 of 14.75% as the interest rate for the computation of interest charges. SBAR rates have been replaced by SBIPLR but SBIPLR still continues. JERC Regulations provide for SBIPLR, hence the same is used. The details are given in the Table 5.29 below:

**Table 5.29: Interest on Normative Loan for FY 2014-15- Commission's Approval**

Particulars	(Rs. Cr)		
	Approved by the Commission as per Tariff order 11 April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
Opening Normative Loan	41.91	270.63	41.91
Add: Normative Loan	27.72	5.35	5.35
Less: Loan Repayment	4.19	22.26	3.26
Closing Normative Loan	65.44	253.72	44
Average Normative Loan	53.68	262.17	42.96
Rate of Interest (SBIPLR rate)	14.75%	14.75%	14.75%
Interest on Normative Loan including bank charges	7.92	38.67	6.34

**The Commission approves the interest on normative loan at Rs. 6.34 Crore in the Review for FY 2014-15 against Rs. 38.67 Crore claimed by CED.**

## 5.11 Interest on Working Capital FY 2014-15

### Petitioner's submission

The Petitioner has computed the working capital for FY 2014-15 as per Regulation 29 of JERC (Terms and Conditions for determination of Tariff Regulations), 2009. As per Commission's previous Tariff Order, the closing balance of security deposit has been deducted from the total working capital requirement considering security deposit available with CED accounts. The SBI advance rate as on 1 April 2014 is considered for computation of interest on working capital. The CED has requested to approve the interest on working capital as given in the Table 5.30 below:

**Table 5.30: Interest on Working Capital: FY 2014-15- Petitioner's Submission**

Particulars	(Rs. Cr)	
	Approved	Estimated
Fuel cost for 2 months	0	0
Power Purchase Cost of 1 month	44.82	54.34
O&M Expenses for 1 months	6.09	6.01
Security Deposit	36.73	35.55
Net Working Capital	14.19	24.79
Interest Rate	14.50%	14.75%
Interest on Working Capital	2.09	3.66

### Commission's Analysis

The Commission has computed requirement of working capital based on the provisions of the Regulations. Working capital has been reduced by the amount of Consumer Security Deposit available with the Petitioner considering its usage for meeting part of working capital requirements. The SBI advance rate as on April 1<sup>st</sup> 2014 is considered by the Commission for computation of interest on working capital for the review for the FY 2014-15. The Petitioner has not considered the value of power purchase sales through UI and exchange of Rs. 9.57 Crore. This will be taken care at the time of True up. The detailed calculation is given in the 5.31 Table below:



**Table 5.31: Interest on Working Capital: FY 2014-15- Commission's Approval**

Particulars	(Rs. Cr)		
	Approved by the Commission as per Tariff order 11 April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
Fuel cost for 2 months	0	0	0
Power Purchase Cost for 1 month	44.82	54.34	53.81
O&M Expenses for 1 month	6.09	6.01	5.99
<b>Total working capital</b>	<b>50.91</b>	<b>60.35</b>	<b>59.80</b>
Less: Security Deposit	36.73	35.55	35.55
<b>Net Working Capital</b>	<b>14.19</b>	<b>24.79</b>	<b>24.25</b>
Interest Rate	14.50%	14.75%	14.75%
<b>Interest on Working Capital</b>	<b>2.09</b>	<b>3.66</b>	<b>3.58</b>

**The Commission therefore considers the interest on working capital at Rs. 3.58 Crore as reasonable and approves the same for the Review for FY 2014-15.**

#### **5.12 Interest on Consumer Security Deposit: FY 2014-15**

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

The Petitioner has submitted that as per provision of Regulation 25 (4) of Tariff Regulations 2009 and in accordance with Clause 47(4) of Electricity Act 2003, the distribution licensee is required to pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the Commission. The CED is obligated to pay interest on consumer security deposit and entitled to claim the same through tariff. The Petitioner has further submitted that the addition in security deposit in FY 2014-15 is much less than the previous years. As per clause 6.10(3) of JERC Supply Code Regulations, 2010 concerning the security deposit, the consumer is required to pay only additional deposit based on his average consumption during the period concerned and the tariff applicable if it exceeded the amount of security deposit held by the licensee by 20%. Hence in the case the additional security required to be deposited is within limit of 20%, no additional security deposit is required to be deposited which is a reason of lesser addition in Security deposit for the year. Accordingly, the Petitioner has furnished the opening and closing balance and addition during FY 2014-15 and claim of interest

on security deposit is given in the table 5.32 below, and requested the Commission to approve the same.

**Table 5.32: Interest on Consumer Security Deposit : FY 2014-15 – Petitioner’s Submission**  
(Rs. Cr.)

Particulars	Approved in the TO dated 11 April, 2014	Estimated
Opening Consumer Security Deposit	35.92	32.55
Net Addition During the year	1.6	3.00
Closing Consumer Security Deposit	37.52	35.55
Average Deposit	36.72	34.05
Bank Rate	8.75%	8.50%
Interest on Consumer Security Deposit	3.07	2.89

### Commission’s Analysis

The Commission has assessed the need and availability of funds to the licensee. Consumer’s security deposit is the quantum of consumer’s funds available to the licensee and hence deducted from the funds available to meet working capital requirements and the interest on working capital is allowed on the balance amount. The Consumer is allowed interest on security deposit to be paid to the consumer as per section 47 (4) and regulation 25 of the JERC Tariff Regulations 2009 and the same is allowed as expenditure in the ARR. The Commission provisionally approves the same for the purpose of review for FY 2014-15 as projected by CED. The rate of interest is considered at 8.75% being the Bank rate applicable for FY 2014-15 as per table 5.33 below.

**Table 5.33: Interest on Consumer Security Deposit considered for review for FY 2014-15**  
(Rs. Cr)

Particulars	Approved by the Commission as per Tariff order 11 April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
Opening Consumer Security Deposit	35.92	32.55	32.55
Net Addition During the	1.60	3.00	3.00
Closing Consumer Security Deposit	37.52	35.55	35.55
Average Deposit	36.72	34.05	34.05
Bank Rate	8.75%	8.50%	8.75%

Particulars	Approved by the Commission as per Tariff order 11 April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
Interest on Consumer Security Deposit	3.07	2.89	2.98

**The Commission therefore considers the Interest on Consumer Security Deposit of Rs. 2.98 Crore in the Review for FY 2014-15.**

### 5.13 Return on Capital Base for FY 2014-15

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

The Petitioner has submitted that the provision 23 (2) and 24 of Tariff Regulations 2009 provide for entitlement for Returns on Capital Base/ Net Fixed Assets by utility/licensee which have not been unbundled i.e. integrated utility. The CED has computed the Return on Capital on the assets as per its accounts. The Commission had not approved the total fixed assets of the CED in absence of the Fixed Asset Register and had directed the CED to prepare the Fixed Asset Register on urgent basis. CED has initiated the process of creation of Fixed Asset Register and provisionally computed the Return on capital employed as per assets in its accounts. However, the CED has created all of its assets from equity yet it has considered normative equity equal to 30% of the total assets as per JERC Tariff Regulations. Reasonable return equal to 3% of net fixed assets after deduction of accumulated depreciation is considered for claim of Return on Equity as computed in the table given below. CED has requested the Commission to take a lenient view on this and approve the RoE as given below as approval of entire amount in future on availability of FAR would put undue burden on consumers of UT and requested the Commission to approve the same as given in the Table 5.34 below.

**Table 5.34: Return on Equity: FY 2014-15 - Petitioner's Submission**

(Rs. Cr)

Particulars	Approved in TO dated 11 April, 2014	Estimated
Gross block at beginning of the Year	58.00	417.78
Less accumulated depreciation	5.25	106.71
Net block at beginning of the year	52.74	311.07
Less accumulated consumer contribution	0.00	0.00
Net fixed assets at beginning of the year	52.74	311.07
Reasonable Return at 3% of NFA	1.58	9.33

### Commission's Analysis

The basic requirement for consideration of return on capital base is the audited Annual Accounts and Fixed Assets and Depreciation Registers. ED Chandigarh has not prepared the statement of accounts viz., profit and loss account, balance sheet etc. Since the Petitioner has not been maintaining adequate information and hence the Commission has considered Rs. 58.00 Crore as the gross block at the beginning of FY 2014-15 and accumulated depreciation of Rs. 5.25 Crore The Commission has accordingly considered Rs. 1.58 Crore towards Return on Capital Base for FY 2014-15 as detailed in the Table 5.35 below:

**Table 5.35: Return on Capital Base for review: FY 2014-15- Commission Approval**

(Rs. Cr.)

Particulars	Approved by the Commission as per Tariff order 11 April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
Gross block at beginning of the Year	58.00	417.78	58.00
Less: accumulated depreciation	5.25	106.71	5.25
Net block at beginning of the year/ Closing equity	52.74	311.07	52.74
Less accumulated Consumer contribution	0.00	0.00	0.00
Net fixed assets at beginning of the year	52.74	311.07	52.74
Reasonable Return at 3% of NFA	1.58	9.33	1.58

The Commission approves an amount of Rs. 1.58 Crore towards return on Net Fixed Assets as in the above Table 5.35.

**5.14 Provision for Bad and Doubtful Debt: FY 2014-15**

**Petitioner's Submission**

The Petitioner has submitted that In accordance with Clause 28 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 the Commission may, after the generating company / licensee gets the receivables audited, allow a provision for bad debts up to 1% of receivables in the revenue requirement of the licensee. Accordingly, CED has proposed the provision for bad and doubtful debts at 1% of the estimated receivables for FY 2014-15. The CED has estimated the provision of bad debt as Rs. 7.86 crores for review of FY 2014-15.

**Commission's Analysis**

The Commission may, after the generating company/licensee gets the auditing of the receivables, allow a provision for bad debts up to 1% of receivables in the revenue requirement of the generating company/licensee vide Regulation 28 of JERC Tariff Regulations.

The Commission has considered provision for bad and doubt full debt in the review for FY 2014-15 at 0.50% of the total receivables i.e Rs. 3.54 Crore only on the estimated revenue of Rs. 707.13 Cr from retail sales, in the absence of audited accounts.

**5.15 Non- tariff Income**

**Petitioner's Submission**

The Petitioner has submitted the actual non-tariff income for the first eight months of FY 2014-15 and estimated for the whole FY 2014-15 as given in the Table 5.36 below and requested to approve the same for the review for FY 2014-15.

**Table 5.36: Non-Tariff Income for FY 2014-15- Petitioner's Submission**

Particulars	(Rs. Cr)		
	Approved	Actual till November	Estimated for the Year
Meter/Service rent		5.4	8.1
Late Payment Surcharge		2.54	3.8
Theft/Pilferage of Energy		0.08	0.1
Misc. receipts/Income		3.86	5.8
Total Non-Tariff Income	16.13	11.88	17.82

### Commission's Analysis

The Commission has considered the non-tariff income as proposed by the Petitioner for Review for FY 2014-15 based on the actual of 8 months during the years as detailed in the table 5.37 below. The reviewed figure of Rs.17.82 Crore. is subject to True up.

**Table 5.37: Non-Tariff Income for FY 2014-15- Commission's Approval**

Particulars	(Rs. Cr)		
	Approved by the Commission as per Tariff order 11 April 2014	Petitioner's submission for Review for the FY 2014-15	Considered for Review for the FY 2014-15
Total Non-Tariff Income	16.13	11.88	17.82

## 5.16 Revenue from Sale of Surplus Power

### Petitioner's Submission

The Petitioner has submitted that CED had total under-drawal of 16.68 MU till December 2014 and 17.14 MU till January 2015 which fetched an amount of Rs. 3.57 Crore till December 2014 and Rs. 3.67 Crore till January 2015. Apart from this CED earned Rs. 2.69 Lakhs for the power sold through exchange till December 2014. As delineated in section of power purchase, CED expects sale of 30.04 MU as UI power and 9.00 MU through exchange in FY 2014-15. The rate at which UI power and power from exchange is sold through is considered as actual average 10 months rate. The total estimated revenue from sale of surplus power for FY 2014-15 is estimated in the table 5.38 below.

**Table 5.38: Revenue from Sale of Power for FY 2014-15 – Petitioner’s Submission**

Particulars	(Rs. Cr)	
	Approved	Estimated
UI Power Sold		6.42
Power Sold Through Exchange		3.15
Revenue from Sale of Surplus Power	0	9.57

**Commission’s Analysis:**

The Commission has considered the actual revenue, at the rates obtained for the first nine months, and considered the revenue from sale of surplus power, as projected by the Petitioner after verification of the statement/ bills. The Commission considers the total sale of surplus power for FY 2014-15 at Rs. 9.57 Crore for sale of 30.04 MU in UI mechanism and 9 MU from power exchange as reasonable and approved for review of ARR for FY 2014-15.

**5.17 Revenue at approved retail tariff of FY 2014-15**

**Petitioner`s submission**

The Petitioner has submitted that it has computed the revenue at existing tariff for FY 2014-15 as per Tariff Order for FY 2014-15 considering sales for FY 2014-15 as detailed earlier. The revenue is projected at Rs.707.13 Crore.

**Commission`s Analysis**

The category wise revenue, for the approved sales for FY 2014-15, works out to Rs. 707.13 Crore, as given in the Table 5.39 below:

Table 5.39: Revenue for FY 2014-15 with Existing Tariff

(Rs. Cr)

Sl. No.	Category	No. of Connections (No)	Connected Load (kW/HP)	Sale of Energy (MU)	Tariff Rate		Revenue			Average Rate of realization (Rs/kwh)
					F.C (Rs/Con) or (Rs/kW) or (Rs./HP)	E.C (Ps/kWh)	F.C (Rs.Cr)	E.C (Rs.Cr)	Total (Rs.Cr)	
a	B	c	D	d	e	f	g	h	i	j
<b>1</b>	<b>DOMESTIC</b>									
	SPD-JJ CLUSTERS/0-150	82492	199739	62.86	0	230	0.00	14.46	14.46	
	151-400	72149	311837	187.40	0	420	0.00	78.71	78.71	
	Above 400	26563	280704	447.31	0	440	0.00	196.82	196.82	
	<b>TOTAL DOMESTIC</b>	<b>181204</b>	<b>792280</b>	<b>697.57</b>			<b>0.00</b>	<b>289.98</b>	<b>289.98</b>	<b>4.16</b>
<b>2</b>	<b>COMMERCIAL</b>									
	0-150 units	8837	30079	5.61	6	430	0.22	2.41	2.63	4.69
	151-400 units	5107	24957	13.76	70	450	2.10	6.19	8.29	6.02
	Above 400 units	7994	323789	459.80	70	470	27.20	216.11	243.30	
	<b>TOTAL COMMERCIAL</b>	<b>21938</b>	<b>378825</b>	<b>479.17</b>			<b>29.51</b>	<b>224.71</b>	<b>254.22</b>	<b>5.31</b>
<b>4</b>	<b>Industrial-HT</b>									
	large supply	104	70127	101.66	70	470	5.89	47.78	53.67	5.28
	medium supply	1176	64467	97.90	70	450	5.42	44.06	49.47	5.05
	<b>Total HT</b>	<b>1280</b>	<b>134594</b>	<b>199.56</b>			<b>11.31</b>	<b>91.84</b>	<b>103.14</b>	<b>5.17</b>
<b>5</b>	<b>Small Power</b>	<b>1281</b>	<b>19244</b>	<b>18.97</b>	6	440	0.14	8.35	8.49	<b>4.47</b>
<b>6</b>	<b>Public Lighting</b>	<b>564</b>	<b>5912</b>	<b>19.51</b>	70	430	0.50	8.39	8.89	<b>4.55</b>
<b>7</b>	<b>Agriculture</b>	874	719	1.61		230		0.37	0.37	<b>2.30</b>
		<b>874</b>	<b>719</b>	<b>1.61</b>			<b>0.00</b>	<b>0.37</b>	<b>0.37</b>	<b>2.30</b>
<b>8</b>	<b>Bulk supply</b>	<b>120</b>	<b>41298</b>	<b>77.24</b>	70	450	<b>3.47</b>	<b>34.76</b>	<b>38.23</b>	<b>4.95</b>
<b>9</b>	<b>Temporary</b>	<b>628</b>	<b>4187</b>	<b>5.69</b>		670	<b>0.00</b>	<b>3.81</b>	<b>3.81</b>	<b>6.70</b>
<b>10</b>	<b>Grand Total</b>	<b>207889</b>	<b>1377059</b>	<b>1499.32</b>			<b>44.92</b>	<b>662.20</b>	<b>707.13</b>	<b>4.75</b>



### 5.18 FPPCA billed during the year

The Petitioner had submitted the FPPCA billed till December 31<sup>st</sup> 2014 and estimates for FY 2014-15 as given in the Table 5.40 below:

**Table 5.40: FPPCA Billed during the FY 2014-15 – Petitioner’s Submission**

Particulars	(Rs. Cr)	
	Billed FPPCA (Rs Crores) till 31.12.2014	Estimated for the year
Domestic	6.85	6.85
Commercial	6.81	6.81
Large supply	1.19	1.19
Medium supply	1.12	1.12
Small power	0.19	0.19
Public light	0.20	0.20
Bulk supply	0.62	0.62
Total	17.00	17.00

#### Commission’s Approval

The Commission provisionally, accepts the submission of the Petitioner and approves Rs. 17.00 Core as FPPCA for FY 2014-15, which will be subject to True up.

### 5.19 Aggregate Revenue Requirement and Revenue Surplus/(Gap) in the Review for FY 2014-15

The Commission has considered and approved the Review of ARR for FY 2014-15 based on the items of expenditure indicated in the preceding sections and updated information submitted by the Petitioner. The revised estimates of Aggregate Revenue Requirement submitted by the Petitioner and approved by the Commission for FY 2014-15 in Tariff Order dated April 11<sup>th</sup>, 2014, revised estimates submitted for Review of FY 2014-15 submitted by the Petitioner and approved by the Commission are given in the Table 5.41 below:

**Table 5.41: Aggregate Revenue Requirement and gap (RE) considered for the review for FY 2014-15- Petitioner's Submission**

(Rs. Cr)

Sl. No	Particulars	FY 2014-15		
		Approved in Tariff order 11 April 2014	Petitioner's submission for Review	Approved by the Commission
1	Cost of fuel			
2	Cost of power purchase for full year	537.87	652.07	645.67
3	Employee costs	59.75	58.65	58.65
4	Administration and general expenses	2.58	2.62	2.58
5	R&M expenses	10.68	10.81	10.68
6	Depreciation	4.11	22.26	3.26
7	Interest and finance	7.92	38.67	6.34
8	Interest on working	2.09	3.66	3.58
9	Interest on Security	3.07	2.89	2.98
10	Return on Capital Base	1.58	9.33	1.58
11	Provision for Bad Debt	3.34	7.81	3.54
12	Advance against depreciation	0.00	0.00	0.00
<b>13</b>	<b>Total Revenue Requirement</b>	<b>633</b>	<b>808.77</b>	<b>738.86</b>
14	Less: Non-Tariff Income	16.13	17.82	17.82
15	Less: Revenue from Sale through UI	0.00	6.42	6.42
16	Less: Revenue from Sale of Power-Exchanges	0.00	3.15	3.15
<b>17</b>	<b>Net Revenue Requirement (13-14-15- 16)</b>	<b>616.87</b>	<b>781.37</b>	<b>711.47</b>

The revenue Gap projected by the Petitioner and considered by the Commission for review for FY 2014-15 is in table 5.42 below:

**Table 5.42: Estimation of deficit / surplus review for FY 2014-15 – Commission’s Analysis**  
(Rs. Cr)

Sl. No	Particulars	FY 2014-15		
		Approved in Tariff order 11 April 2014	Petitioner's submission for Review	Approved for Review by the Commission
1	Net Revenue Requirement Sl. 17 of above table	616.87	781.37	711.47
2	Revenue from retail sales at Existing Tariff	668.24	707.13	707.13
3	FPPCA billed during the	0	17.00	17.00
4	Revenue (Gap)/Surplus for the Year (1-2-3)	51.37	(57.24)	(12.66)
5	Gap/ (Surplus) for the previous year *	23.51	13.12	(23.51)
6	Net Gap/( Surplus)	74.89	(44.13)	(36.17)

\* As approved for review of FY 2013-14 in the tariff order dated April 11<sup>th</sup>, 2014.

### **Commission’s Analysis and Approval**

The Commission has estimated the Revenue surplus of Rs. 36.17 Crore in the Review for FY 2014-15 including the revenue surplus of Rs. 23.51 Crore for the previous year’s (FY 2013-14) approved in the Tariff Order dated April 11<sup>th</sup>, 2014. These figures will be addressed again in the True up exercise for FY 2014-15.

As in the above paras, the Commission has reviewed the variations between approvals and actuals of sale of electricity, income and expenditure for FY 2014-15 and the revised estimates, estimated the energy sale, income and expenditure as submitted by the Petitioner and permitted necessary adjustments in cases where variations seemed to be for reasonable and justifiable reasons.

Except for cumulative surplus of Rs.36.17 Crs after the review of ARR for FY 2014-15, other deviations have left no impact that is required to be passed on to the Consumers.

The above surplus in revenue is addressed in the Chapter 6 on ARR for FY 2015-16. The Review exercise is for maintaining the parameters of ARR as approved by the Commission.

The CED is required to maintain a check on these deviations and put in efforts to get the auditing of the accounts done urgently for proper True up not later than filing the next Petition of ARR & Tariff for FY 2016-17.

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## **6. AGGREGATE REVENUE REQUIREMENTS FOR FY 2015-16**

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### **6.1 Background-Petition for ARR Approval-FY 2015-16**

The CED has submitted the ARR for the MYT control Period, FY 2015-16 to FY 2017-18, for approval as required under Regulation 4.28 of JERC (Multi Year Distribution Tariff) Regulations 2014.

As indicated in Para 2.4.1 the Commission has taken a decision to determine the ARR for FY 2015-16 only instead of MYT period of FY 2015-16 to FY 2017-18 and determine the tariff of FY 2015-16 considering the various provisions of JERC Tariff Regulations 2009. Accordingly the figures projected for FY 2015-16 only are considered.

### **6.2 Analysis of Aggregate Revenue Requirement of the FY 2015-16**

The determination of Aggregate Revenue Requirement requires assessment of quantum of energy sales, T&D losses as well as various cost elements like power purchase cost, O&M expenses, interest cost and depreciation etc. Revised estimates/pre-actuals submitted by the Petitioner as regards to various components of ARR of previous year, the Commission's analysis thereon and decision in respect of items given below as indicated in the following Para's:

- Assessment of Energy Requirement
  - i. Sales Projections
  - ii. Loss Trajectory
  - iii. Energy Balance
  - iv. Power Purchase Sources
  
- Assessment of the Aggregate Revenue Requirement
  - i. Power Purchase Costs & Transmission Charges;
  - ii. Operation and Maintenance Expenses;

- Employee Expenses
- Administration & General expenses
- Repairs & Maintenance Expenses
  - a. Capital Expenditure and Asset Capitalization
  - b. Gross Fixed Assets;
  - c. Depreciation;
  - d. Interest on Long Term Loans;
  - e. Interest on Working Capital & Security Deposits;
  - f. Return on Capital Base/ Net Fixed Assets;
  - g. Provision for Bad and Doubtful Debts
  - h. Other expenses
  - i. Non-Tariff Income

As per the regulation no. 13 of JERC Tariff Regulations 10/2009,

**Quote “**

1. *The Aggregate Revenue Requirement of the generating company or the licensee shall comprise of the following:*
  - i. Fuel Cost for own generation, if applicable.
  - ii. Cost of Power Purchase, if any
  - iii. Operation and Maintenance Expenses,
  - iv. Depreciation, including Advance Against Depreciation,
  - v. Interest and Cost of Finance,
  - vi. Return on Equity,
  - vii. Income Tax
  - viii. Provision for Bad & Doubtful Debts
  - ix. Other Expenses.
2. *The data should be provided for three years*
  - i. *Audited figures for the previous year; Information for the previous year shall be based on the audited accounts; in the absence thereof, the audited accounts for*

*the immediately preceding year shall be filed along with the un-audited accounts for the previous year.*

- ii. Estimated figures for the current financial year should be based on actual figures for the first six months and the estimated figures for the second six-months of the year. The estimated figures for the second half year of the current financial year should be based on the actual audited figures for the second half of the previous year with adjustments that reflect known and measurable changes expected to occur between them. These adjustments must be specifically documented and justified.*
- iii. Forecasted figures for the ensuing year should be based on the current year figures with adjustments that reflect known and measurable changes expected to occur between them. These adjustments must be specifically documented and justified.”*

3. *The Aggregate Revenue Requirement of the generating company or the licensee shall be worked out by adjusting the following in the revenue requirement computed under Clause (1) above:*

- i. Necessary adjustments under Regulation 9 ‘Review and Truing Up’.*
- ii. Income from surcharge and additional surcharge from Open Access Consumers, if any ;*
- iii. Transmission and/or Wheeling Charges recovered from the Open Access Customers, if any ;*
- iv. Authorized portion of Income/revenue from Other Business engaged in by the licensee for optimum utilization of assets, if any, in accordance.*

*“Unquote*

### **6.3 Estimations of Energy Sales, Connected Load and Consumers growth FY 2015-16**

#### **6.3.1 Energy Sales FY 2015-16 Petitioner’s Submission**

The category wise CAGR sales growth till FY 2013-14 over last five years, three years and one year is given in table 6.1 below:

**Table 6.1: Basis for Estimation Energy Sales Growth on FY 2013-14 Sales – Petitioner’s Projections**

Sl. No.	Categories	5 Year CAGR	3 Year CAGR	1 Year CAGR
1	Domestic	7%	4%	1%
2	Commercial	7%	3%	3%
3	Large Supply	-3%	-3%	-3%
4	Medium Supply	1%	4%	0%
5	Small Power	4%	-1%	0%
6	Agriculture	8%	8%	1%
7	Public Lighting	9%	6%	-1%
8	Bulk Supply	17%	4%	0%
9	Others Temporary supply	-43%	-27%	-3%

It can be observed that sales in various categories like large, medium and small power, agriculture and temporary supply is decreasing over past many years while the sales in other categories except Consumer categories consuming above 400 Units under domestic and commercial categories are increasing at very a meek rate. The general economic scenario in the country for past few years has kept sales growth at modest ratio.

Further, the MYT Regulation under 5.3 necessitates the utility to take DSM measures and set targets for reduction in demand by applying various energy efficiency and demand side management schemes. The Regulations require to quantify the reduction in power purchase quantum due to the Energy Efficiency and DSM Schemes. Petitioner has submitted that the various Energy Efficiency schemes are covered under R-APDRP project which is not being implemented due to Non-Performance of IT implementing Agency (ITIA) M/s. SPANCO by the Government of Punjab.

The implementation of R-APDRP scheme is very crucial for employing IT enabled methods in reducing losses and demand of the UT of Chandigarh. The matter is taken up with the Government of Haryana for carrying out the work by Haryana ITIA and the response from DHBVN Haryana has been received recently and referred to PFC/MoP for approval. However, CED is committed to reduce the demand of UT by implementation of DSM measures and as an additional initiative,



CED has taken up the matter of DSM for improving energy efficient street lighting system in UT Chandigarh with TERI and the proposal is under progress. CED requests the Hon'ble Commission to exempt CED for quantifying the targets of demand reduction due to DSM measures for this year. The Revenue Requirement for carrying out the Energy Efficiency and DSM schemes and Energy savings from such schemes would be submitted with future petitions.

For the purpose of Petition, the sales growth considered for FY 2015-16 over the estimated sales of FY 2014-15 and category wise sales projected is given in the table below:

**Table 6.2: Category wise sales for FY 2015-16 – Petitioner's Projections**

			(MU)
Sl. No	Categories	Growth Rate Used	FY 2015-16 projected
1.	Domestic	5%	732.44
	SPD-JJ Clusters/Unauthorized colonies		66.00
	0-150 kWh		
	151-400 kWh		196.77
	Above 400 kWh		469.68
2.	Commercial	3%	493.55
	0-150 kWh		5.78
	151-400 kWh		14.18
	Above 400 kWh		473.60
3.	Large Supply	0%	101.66
4.	Medium Supply	0%	97.90
5.	Small Power	0%	18.97
6.	Agriculture	1%	1.63
7.	Public Lighting	5%	20.49
8.	Bulk Supply	8%	83.42
9.	Others Temporary Supply	0%	5.69
	Grand Total		1555.75

### 6.3.2 Connected Load Growth for FY 2015-16

#### Petitioner's Submission

The load growth considered for projection for FY 2015-16 over the estimated connected load for FY 2014-15 is as given in the table 6.3 below:

**Table 6.3: Projected category wise connected load FY 2015-16- Petitioner's Submission**

Sl. No	Categories	Growth Rate Used	FY 2015-16 Projected
1.	Domestic	5%	831893.80
	SPD-JJ Clusters/Unauthorized colonies		209725.50
	0-150 kWh		
	151-400 kWh		327428.60
	Above 400 kWh		294739.70
2.	Commercial	6%	401556.00
	0-150 kWh		31884.02
	151-400 kWh		26454.74
	Above 400 kWh		343216.80
3.	Large Supply	2%	71529.55
4.	Medium Supply	4%	67045.60
5.	Small Power	1%	19436.83
6.	Agriculture	2%	733.38
7.	Public Lighting	3%	6089.36
8.	Bulk Supply	10%	45427.80
9.	Others Temporary Supply	0%	4186.54
	<b>Grand Total</b>		<b>1447898.00</b>

### 6.3.3 Number of Consumers for FY 2015-16

#### Petitioner's submission

The number of consumers is considered for FY 2015-16 with a growth rate of 1% over estimated consumers of FY 2014-15, as given in the Table 6.4 below.

**Table 6.4: Category wise Consumers projected for FY 2015-16- Petitioner's Submission**

Sl. No	Category wise Consumers -Numbers	Growth Rate considered	FY 2015-16 projections
1.	Domestic	1%	183166
2.	Commercial	0.1%	21970
3.	Large Supply	0%	105
4.	Medium Supply	5%	1235
5.	Small Power	0%	1281
6.	Agriculture	0%	120
7.	Public Lighting	7%	941
8.	Bulk Supply	10%	620
9.	Others Temporary Supply	0%	628
	<b>Grand Total</b>		<b>210066</b>

## **Commission's Analysis**

### **Energy Sales, Connected load and Consumer growth**

The Commission has been pursuing with the Licensees under its jurisdiction about saving the Energy through deploying efficient equipment, energy saving lamps, timely switching off street lights and park lights under the jurisdiction of the Licensees, and other measures of demand side management ( DSM) ,reducing T&D losses etc.

This issues has been raised in the Parliament and accordingly ,CEA vide its letter no CEA/DPD/PQ/2015/579-610 dated March 13<sup>th</sup>,2015 to all the Electricity Regulatory Commissions has asked for the reasons of wastage of electricity if any and the time limit to fix it.

The energy growth shall take into account the above measures.

The Commission has drawn energy growth on 5 year, 4 year, 3 year, 2 year CAGR and Y-O-Y growth rate up to FY 2013-14, as given in the table 6.5 below:

**Table 6.5: Category wise energy sales & growth rates – Commission’s Analysis**

Category	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14		CAGR				
	Actual	Actual	Actual	Actual	Actual	Actual	Approved	5 years	4 Years	3 years	2 year	YoY
Domestic	433	471.9	518.00	525.79	586.54	608.24	617.79	7.03%	6.55%	5.50%	7.56%	3.70%
SPD-JJ Clusters/ Unauthorized colonies							18.36					
0-150 kWh			74.00	69.00		65.76	52.72					
151-400 kWh			444.00	456.79		196.50	195.56					
Above 400 kWh						345.97	351.15					
Commercial	318	440.5	398.00	417.36	397.54	446.18	421.44	7.01%	0.32%	3.88%	3.40%	12.24%
0-150 kWh			133.00	133.29		5.74	6.26					
151-400 kWh			265.00	284.07		14.04	14.77					
Above 400 kWh						426.40	400.41					
Large Supply	145	141.4	140	128.72	137.5	123.94	118.75	-3.09%	-3.24%	-3.98%	-1.87%	-9.86%
Medium Supply	101	116.5	89	103.71	103.84	104.53	92.14	0.69%	-2.67%	5.51%	0.40%	0.67%
Small Power	17	20.7	21	22.02	20.11	20.36	17.85	3.67%	-0.41%	-1.03%	-3.84%	1.25%
Agriculture	1	1	2	1.27	1.4	1.46	1.44	7.86%	9.92%	-9.96%	7.22%	4.29%
Public Lighting	14	15.1	17	17.45	21.98	21.20	18.63	8.65%	8.85%	7.64%	10.22%	-3.55%
Bulk Supply	39	57.7	73	74.67	87.34	86.56	78.11	17.29%	10.67%	5.84%	7.67%	-0.89%
Others Temporary Supply	124	10.5	27	10.5	8.79	7.68	7	-42.67%	-7.52%	-34.23%	-14.48%	-12.63%
<b>Total</b>	<b>1,192</b>	<b>1,275.30</b>	<b>1285</b>	<b>1301.48</b>	<b>1365.04</b>	<b>1420.16</b>	<b>1373.15</b>	<b>3.56</b>	<b>2.73</b>	<b>3.39</b>	<b>4.46</b>	<b>4.04</b>

**Table 6.6: Category wise Connected load & Growth rates- Commission's Analysis**

Category	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14		CAGR				
	Actual	Actual	Actual	Actual	Actual	Actual	Approved	5 years	4 Years	3 years	2 Years	YoY
Domestic	588925	609933	609,926	658,690	731236	773459	771893	5.60%	6.12%	8.24%	8.36%	5.77%
SPD-JJ Clusters/ Unauthorized colonies							1496					
0-150 kWh			201,281	209,049		225647	222342					
151-400 kWh			408,644	449,642		287995	275462					
Above 400 kWh						259818	274089					
Commercial	260796	274628	301,758	318,272	326156	360348	348987	6.68%	7.03%	6.09%	6.41%	10.48%
0-150 kWh			98,708	101,193		32354	37619					
151-400 kWh			203,051	217,079		27224	26444					
Above 400 kWh						300770	284924					
Large Supply	64321	65937	65026	65763	64023	69671	68825	1.61%	1.39%	2.33%	2.93%	8.82%
Medium Supply	51222	53566	55564	57603	59811	62011	62050	3.90%	3.73%	3.73%	3.76%	3.68%
Small Power	17398	18484	18500	18652	18754	19015	19110	1.79%	0.71%	0.92%	0.97%	1.39%
Agriculture	986	1006	737	675	707	715	714	-6.23%	-8.18%	-1.01%	2.92%	1.13%
Public Lighting	3845	2966	5039	5455	5583	5791	6116	8.54%	18.21%	4.75%	3.03%	3.73%
Bulk Supply	27119	42977	28745	30378	41303	41299	41716	8.78%	-0.99%	12.84%	16.60%	-0.01%
Others Temporary Supply	8654	8763	24741	27840	5672	4229	5729	-13.34%	-16.65%	-44.50%	-61.03%	-25.44%
<b>Total</b>	<b>1023266</b>	<b>1078260</b>	<b>1110036</b>	<b>1183328</b>	<b>1253245</b>	<b>1336539</b>	<b>1325139</b>					

**Table 6.7: Category wise number of Consumers & Growth rates – Commission’s Analysis**

Category	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14		CAGR				
	Actual	Actual	Actual	Actual	Actual	Actual	Approved	5 years	4 Years	3 years	2 Years	YoY
Domestic	165,121	167,208	168,429	170,364	172,549	174407	174717	1.10%	1.06%	1.17%	1.18%	1.08%
SPD-JJ Clusters/ Unauthorized colonies							15080					
0-150 kWh			100,729	98,000		90321	75658					
151-400 kWh			67,700	72,364		62003	60521					
Above 400 kWh						22083	23458					
Commercial	24,066	24,420	24,837	25,359	20,309	21447	21325	-2.28%	-3.19%	-4.77%	-8.04%	5.60%
0-150 kWh			22,802	23,198		9811	9513					
151-400 kWh			2,035	2,161		4951	4849					
Above 400 kWh						6685	6963					
Large Supply	103	102	102	104	101	105	103	0.39%	0.73%	0.97%	0.48%	3.96%
Medium Supply	879	884	1,042	1,076	1,116	1154	1174	5.60%	6.89%	3.46%	3.56%	3.41%
Small Power	1,371	1,409	1,286	1,291	1,285	1285	1298	-1.29%	-2.28%	-0.03%	-0.23%	0.00%
Agriculture	163	167	133	122	123	122	124	-5.63%	-7.55%	-2.84%	0.00%	-0.81%
Public Lighting	554	568	678	775	807	846	873	8.84%	10.47%	7.66%	4.48%	4.83%
Bulk Supply	219	258	286	348	503	529	518	19.29%	19.66%	22.75%	23.29%	5.17%
Others Temporary Supply	265	266	751	903	922	737	931	22.70%	29.02%	-0.63%	-9.66%	-20.07%
<b>Total</b>	<b>192741</b>	<b>195282</b>	<b>197544</b>	<b>200342</b>	<b>197715</b>	<b>200632</b>	<b>201063</b>					

The Commission has considered the revised estimates of FY 2014-15 (including actual data till 31 December 2014 for all categories) for projecting the category wise connected load, number of consumers and Energy sales for FY 2015-16.

Considering the growth rates of over last six years (FY 2008-09 to FY 2013-14) as indicated above for different categories of consumers, the Commission considers the CAGR adopted by the Petitioner for the energy sales, connected load and number of consumers is reasonable.

Thus, the CAGR as approved in the table 6.8 below has been applied on the approved figures of Sales, Connected Load and Number of Consumers for FY 2014-15 (revised) as detailed in Chapter 5 to arrive at the figures of FY 2015-16. The details are given in the table 6.8 below:

**Table 6.8: Energy sales, Connected load and No. of Consumers for FY 2015-16– Commission’s Analysis**

Sl. No	Categories	Energy sales (MU)			Connected load (kW)			Number of consumers		
		As projected	Approved	CAGR Adopted	As projected	Approved	CAGR Adopted	As projected	Approved	CAGR Adopted
A	b	c	d	e	F	g	h	i	j	K
A	Domestic	732.44	732.44	5%	831893.8	831893.8	5%	183166	183166	1%
1	<i>JJ Cluster</i>	66	66		209725.5	209725.5				
2	<i>0-150 kWh</i>									
3	<i>151 kWh-400 kWh</i>	196.77	196.77		327428.6	327428.6				
4	<i>Above 400 kWh</i>	469.68	469.68		294739.7	294739.7				
B	Commercial	493.55	493.55	3%	401556	401556	6%	21970	21970	0.10%
4	<i>0-150 kWh</i>	5.78	5.78		31884.02	31884.02				
5	<i>151 kWh-400 kWh</i>	14.18	14.18		26454.74	26454.74				
6	<i>Above 400 kWh</i>	473.6	473.6		343216.8	343216.8				
C	Large Supply	101.66	101.66	0%	71529.55	71529.55	0%	105	105	0%
D	Medium Supply	97.9	97.9	0%	67045.6	67045.6	1%	1281	1281	0%
E	Small Power	18.97	18.97	0%	19436.83	19436.83	4%	1235	1235	5%
F	Agriculture	1.63	1.63	1%	733.38	733.38	2%	120	120	0%
G	Public Lighting	20.49	20.49	5%	6089.36	6089.36	3%	941	941	7%
H	Bulk Supply	83.42	83.42	8%	45427.8	45427.8	10%	620	620	10%
I	Others-Temporary Supply	5.69	5.69	0%	4186.54	4186.54	0%	628	628	0%
	<b>Grand Total</b>	<b>1555.75</b>	<b>1555.75</b>		<b>1447898</b>	<b>1447898</b>		<b>210066</b>	<b>210066</b>	

**Commission's Approval:**

The energy sales, connected load and number of consumers are at columns d, g, j of above table

**6.4 Intra-State Transmission & Distribution Loss: FY 2015-16**

**Petitioner's submission**

The Petitioner submitted that it is making all efforts in reducing the distribution losses in UT of Chandigarh. It has initiated and implementing various schemes for reducing the technical and commercial losses, however, losses in UT is much lower than the average losses in country and incremental reduction in losses at this level becomes more difficult. Further, CED once again reiterates and submits before the Hon'ble Commission that actual distribution losses for UT of Chandigarh are much lower considering interstate point inside the limits of UT of Chandigarh. The energy input in CED is currently being metered at 400 kV Nalagarh, 220 kV Mohali and 220 kV Dhoolkot (BBMB) which has resulted in higher T&D losses for CED. The CED has to bear the additional losses of interstate circuit due to not having any interstate point in its boundary. The CED has taken up the issue with CEA and PGCIL and expect the early resolution of the matter.

During the 30th Standing Committee meeting of CES held on dated 02.01.2013, in principal approval for establishment of 2\*60 MVA, 200/66 kV Substation along with 200 kV D/C line from Barwala (Panchkula) was accorded. It was also decided during the meeting that the scheme may be fine-tuned after discussion with Chandigarh, HVPNL and CTU Further. It was decided that the M/s Power grid site office would carry out walk over survey from 400/220 kV Barwala (Panchkula) Substation to UT Chandigarh bounding from both proposed locations namely Hallomajra and Raipur Kalan. CED vide memo no. 6170 dated 18.12.2013 requested M/s PGCIL to carry out walk over survey as per the MOM issued by CEA vide letter no. 7/1/2013-SP&PA dated 5.12.2013 and also conveys that the land for 220 kV substation is available at 2 sites namely Hallomajra and Raipur Kalan. Further it is gathered that M/s PGCIL local site office has carried out walk over survey for both



the sites and is learnt that report along with BOQ has been sent by the local office to regional HQ of Power grid.

The Distribution losses for FY 2015-16 are projected by the CED based on the Commission order dated May 5<sup>th</sup>, 2014 in Suo-moto petition no.76/2012. The loss reduction of 0.25% is anticipated in FY 2016-17 and 0.25 percentage for FY 2017-18, which is less as compared to previous years due to the fact that incremental reduction after certain point becomes more difficult and cost involved in reducing the losses are usually more than the revenue gained. However, the CED would request the Commission to review the targets for the MYT Period once the interstate point is provided to CED and actual T&D loss level could be ascertained. The projected distribution losses for FY 2015-16 are 14.5% and we request the Commission to approve the same.

#### **Commission's analysis**

The Commission acknowledges the efforts being done by the Petitioner for identification of various concern areas for high T&D losses and steps being taken for reduction of these losses.

While it is acknowledged that creation of an interstate point within the periphery of Chandigarh may reduce the losses currently being borne by the Petitioner to bring the power to its periphery, the Commission is of view that the efforts currently being undertaken will take at least another 2 years to finally materialize. Till such time the interstate point is actually functional within the periphery of the Petitioner, the Commission shall continue its existing approach for determination of T&D losses wherein, the Commission, while approving T&D losses, considers the power availability at the licensee's periphery as accounted by Northern Region Power Committee.

The T&D losses comprise of intra-state transmission and distribution losses. The Commission would like to reiterate that the approved losses were allowed considering the existing infrastructure, input and output points and Abraham Committee Report. The Commission has considered the T&D losses of 15% as

approved in tariff order dated April 15<sup>th</sup>, 2013 and while approving the same the entire network of CED was covered. Further, the mentioned network belongs to the CED and is accordingly maintained. Accordingly, the Commission does not find any merit in the Petitioner's current submission and hence has not considered any revision of losses as approved by the Commission.

In the Order dated May 5<sup>th</sup>, 2014 in Petition No. 76/2012 of the Commission examined the information /report submitted by the respondent stating that the targeted reduction of T&D losses would be during 2014-15 and directed the respondent to make sincere and best efforts to further reduce the T&D losses.

The Commission did not give its approval for 15% losses for FY 2014-15 and considered at 14% only for review of FY 2014-15, as indicated in the earlier chapter number 5.

Chandigarh is a Metropolitan area and T&D loss in Metropolitan areas such as Ahmedabad area are only 7 to 8 %. In the absence of energy audit as specified in Regulation 15 of Tariff Regulations, 2009, the Commission for the purpose of determination of ARR for FY 2015-16, approves the T&D loss level at 13.75%, with 0.25% reduction over the approved estimated losses for FY 2014-15. The Commission has taken into consideration the difficulties expressed by the Petitioner and reduced only 0.25% instead of T&D loss trajectory of 0.5%, though as per the recommendation of Abraham Committee the reduction should be 1%.

However, the sharing of gain or loss on account of over-achievement or under achievement of target specified by the Commission will be dealt in the true-up of FY 2015-16 on the basis of actual T&D loss level and audited figures of Quantum of Power purchase and Sales for FY 2015-16.

The Commission has been insisting on the study to be carried out for T&D losses. This was being put off due to APDRP project planned to be undertaken. The Commission directs that a study with the help of Nic or should be undertaken

immediately if the funding from PFC is getting delayed or being denied to CED on any ground.

## 6.5 Inter-State Transmission Losses-FY 2015-16

### Petitioner's submission

The Inter-state transmission losses of Power Grid Corporation of India Limited have been projected to be 3.00% for FY 2015-16 in line with actual losses for FY 2012-13.

### Commission's view

The Commission considers the recent 52 weeks moving average of regional losses i.e. 3.78% as the inter-state loss as considered for review of ARR of FY 2014-15 which would be revised based on actual during the truing up exercise.

## 6.6 Energy Balance

### Petitioner's submission

Based on the data on projected sales and power purchase obtained, projected energy balance for FY 2015-16 is as follows:

**Table 6.9: Energy Balance for FY 2015-16 Projected – Petitioner's Submission**

Particulars	FY 2015-16
Energy Sales	1555.75
Loss %	14.50%
Loss (MUs)	263.84
Total Energy Required at UT Periphery	1819.59
Transmission Loss (%)	3.00%
Transmission Loss (MUs)	56.28
Net Energy requirement	1875.86

### Commission's Analysis

Based on the Energy requirement, Energy availability and Transmission & Distribution Losses for FY 2015-16 as indicated in earlier Para's, the Energy balance for FY 2015-16 is presented below. As can be seen, there will be an additional power requirement to meet the energy requirement for FY 2015-16. The power from short-term sources/power exchanges has been considered to balance the energy requirement for FY 2015-16.

**Table 6.10: Energy Balance for FY 2015-16 - Commission's Approval**

Sl. No	Particulars	Petitioner's Submission	Approved by the Commission
<b>A</b>	<b>Energy Required in MU</b>		
1	Energy Sales within State/UT (MU)	1555.75	1555.75
<b>2</b>	<b>Total Sales within State/UT</b>	<b>1555.75</b>	<b>1555.75</b>
3	Distribution Losses		
	%	14.50%	13.75%
	MU	263.84	248.02
<b>4</b>	<b>Energy Required at State Periphery</b>	<b>1819.59</b>	<b>1803.77</b>
5	Transmission Losses		
	%	3.00%	3.78%
	MU	56.28	70.73
<b>6</b>	<b>Energy Required at Generation End (excluding solar)</b>	<b>1875.87</b>	<b>1871.13</b>
7	Solar	-	3.50
8	Net energy required at Generation End		<b>1874.63</b>
<b>B</b>	<b>Gross availability Sources(MU)</b>		
1	Power Purchase from Renewable Sources ( Solar Roof Top Plants in Chandigarh)		3.50
2	NPCIL	96.93	87.38
3	BBMB	701.93	693.22
4	THDC	48.83	37.46
5	SJVNL	59.2	74.41
6	Unscheduled Interchange		
7	Power Purchase from NTPC+NHPC+APCPL	603.52	648.05
8	PXIL (Buy), short term power and Deviation settlement to match the energy requirement	365.45	330.63
	<b>Gross Purchase including PX (MU)</b>	<b>1875.87</b>	<b>1874.63</b>

## 6.7 Power Purchase Quantum and Cost for FY 2015-16

### Petitioner's submission

#### Power Purchase Quantum

The Petitioner submitted that it procures power from various sources such as:

- Central Generating Stations (CGS) such as that of NTPC, NHPC and NPCIL
- Other Generating Stations such as that of SJVNL, BBMB, THDC, APCPL
- Other sources such as bilateral agreement, banking arrangement, power exchange and UI power as deviation settlement etc.

It is also submitted that the allocation from CGS consists of a fixed share of

allocation for a year, and a variable share of allocation from the unallocated quota, the quantum of which keeps on changing during the year and since the allocation of power from various sources is inadequate, the Petitioner is required to procure power from short term sources i.e. power exchange(s) and other trading sources. And for meeting the peak demand Petitioner is required to procure power from short-term sources and UI power as deviation settlement. However, strict care has been taken to limit the amount of UI draws. The Petitioner also submits that, short-term power purchase and UI power purchase cost of power per unit has been much lower than the power purchase from various CGS and other sources. The Energy availability to CED from various plants is considered on the below mentioned methodology

- a. The current allocation from different plants to U.T. of Chandigarh has been considered for the availability to CED for FY 2015-16.
- b. The generation from thermal plants, (Including Nuclear plants) are computed based on auxiliary consumption approved by CERC and actual PLF of the thermal plants for last year.
- c. The generation from Hydro plants are computed based on average actual units generate by these plants for last two years for old plants and actual energy generation for previous year FY 2014 for some plants like Chamera III, Parbathi III, Sewa II, Uri II, Koteshwar and Tehri.
- d. The shortfall in energy is proposed to be met through short term power purchase, power from Exchange(s) and deviation settlement as UI power.

#### **Power Purchase Cost for FY 2015-16**

The power purchase cost for these plants is computed based on the actual power purchase cost incurred in FY 2013-14.

- a. The fixed cost for FY 2014-15 is kept same as fixed charges billed by each plant for FY 2013-14.
- b. The Energy Charges for each plant is computed by multiplying variable charge per units for FY 2013-14 escalated at 5% with units available

- from each plant mentioned above.
- c. The Other charges are not projected for control period
- d. The Short term power, power through exchange and deviation settlement is proposed to be bought at Rs. 3.50 per unit
- e. Fixed charges for BBMB is taken as a whole as actual billed for FY 2013-14 and Energy charges per unit computed for BBMB as whole escalated at 5%
- f. PGCIL Charges, NRLDC Charges, Reactive Energy charges are computed as per actuals billed per unit in FY 2013-14.

The power purchase cost estimated by the Petitioner is given in the Table 6.9 below:

**Table 6.11: Projected Power Purchase Cost estimated FY 2015-16 – Petitioner’s Submission**

(Rs. Cr)

Plant	Units MU	Capacity Charges	Energy Charges	Total Charges	Total Cost Rs/ kWh
NTPC Stations					
Anta	32.41	3.6	10.93	14.53	4.48
Auraiya	19.11	2.78	9.19	11.97	6.26
Dadri GPP	28.04	2.76	13.03	15.79	5.63
Dadri II TPP	14.02	2.3	5.16	7.46	5.32
Kahalgaon II	17.47	2.52	4.59	7.11	4.07
Rihand I	80.13	6.62	13.1	19.72	2.46
Rihand II	66.8	6.56	11.33	17.89	2.68
Rihand III	51.1	6.95	8.85	15.8	3.09
Singrauli	28.28	1.41	3.37	4.78	1.69
Unchahar I	15.84	1.39	3.63	5.02	3.17
Unchahar II	26.79	2.42	7.11	9.53	3.56
Unchahar III	10.08	1.4	2.07	3.47	3.44
NHPC Stations					
Chamera I	93.2	7	9.86	16.86	1.81
Chamera II	18.11	3.47	2.79	6.26	3.46
Chamera III	10.41	2.86	2.39	5.25	5.04
Dhauliganga	8.73	0.6	1.33	1.93	2.21
Dulhasti	20.54	7.44	6.64	14.08	6.85
Parbathi III	7.33	4.25	2.07	6.32	8.62
Salal	7.84	0.45	0.39	0.84	1.07
Sewa II	5.96	2.2	1.46	3.66	6.14
Tanakpur	4.81	0.55	0.58	1.13	2.35

Plant	Units MU	Capacity Charges	Energy Charges	Total Charges	Total Cost Rs/ kWh
Uri-I	14.03	1.56	1.19	2.75	1.96
Uri II	9.6	2.74	1.11	3.85	4.01
APCL	12.89	6.51	5.43	11.94	9.26
NPCIL					
NAPP	39.63		9.86	9.86	2.49
RAPP (#3 and #4)	20.5		5.9	5.9	2.88
RAPP(#5 and #6)	36.8		13.17	13.17	3.58
SJVNL					
Natthpa Jhakri	55.63	9.94	8.01	17.95	3.23
Rampur	3.57	0.94	1.01	1.95	5.46
BBMB	701.03	33.09	230.93	264.02	3.77
THDC					
Koteshwar	10.65	2.08	2.27	4.35	4.08
Tehri	38.7	7.88	9.19	17.06	4.41
Short Term Exchange	150		52.5	52.5	3.50
Short Term	180		63	63	
Dev. Settlement	35.4		12.41	12.41	3.51
PGCIL Charges				35.79	
NRLDC Charges				0.35	
Reactive Energy Charges				0.06	
Roc				14.55	
<b>Grand Total</b>	<b>1875.86</b>			<b>719.99</b>	<b>3.84</b>

### Commission's Analysis of Power Purchase Quantum and Cost: FY 2015-16

#### Central Generating Stations –NTPC

While estimating the energy availability from NTPC Stations for FY 2015-16, the following is considered:

**Allocation of Share:** The Commission has considered the gross %age of firm allocation and allocation of the unallocated quota from the various generating stations including Singrauli, Rihand I,II & III, Unchahar I,II and III, Kahalgaon, Dadri-II, Anta-G, Anta-RLNG, Auraiya, Auraiya- RLNG, Dadri-G, and Dadri-RLNG as specified in latest revised allocation order no. NRPC/ OPR/ 103/02/2014-15 dated December 30<sup>th</sup>, 2014 of NRPC, Govt. of India;

**Gross Energy Availability:** The Commission has estimated the gross energy availability from the existing NTPC stations based on the installed capacity and the

average of figures of first 9 months of FY 2014-15. The Net energy sent out is worked out after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009;

**Energy Available to the Petitioner:** The effective share from the stations has been applied on the energy sent out to arrive at the energy to be purchased by the Petitioner from respective stations. Accordingly, the Commission has approved the availability from NTPC stations based on the merit order dispatch principles;

The Commission has considered the following assumptions to arrive at the Power purchase cost for FY 2014-15 from the NTPC stations:

**Fixed Charges:** The fixed charges are considered at the level approved for review of FY 2014-15

**Variable Charges:** The Commission has considered the average variable cost for the period October 2014 to December 2014 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2015-16.

#### **Central Generating Stations –NHPC**

While estimating the energy availability from NHPC Stations for FY 2015-16, the following is considered:

**Allocation of Share:** The Commission has considered the gross percentage of firm allocation and allocation of the unallocated quota from the various generating stations including Salal, Tanakpur, Chamera I, II & III, Uri, Dhauliganga, Dulhasti, Sewa II as specified in latest revised allocation order no. NRPC/ OPR/ 103/02/2014-15 dated December 30<sup>th</sup>, 2014 of NRPC, Govt. of India;

**Gross Energy Availability:** The Commission has estimated the gross energy availability from the existing NHPC stations based on the first nine months actuals of FY 2014-15. The Net energy sent out is worked out after considering the applicable auxiliary consumption as per the Central Electricity Regulatory



Commission (Terms and Conditions of Tariff) Regulations, 2009.

**Energy Available to the Petitioner:** The effective share from the stations has been applied on the energy sent out to arrive at the energy to be purchased by the Petitioner from respective stations.

The Commission has considered the following assumptions to arrive at the Power purchase cost for FY 2015-16 from the NHPC stations:

**Fixed Charges:** The fixed charges are considered at the level approved for review of FY 2014-15.

**Variable Charges:** The Commission has considered the average variable cost for the period October 2014 to December 2014 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2015-16.

**Central Generating Stations –NPCIL:** While estimating the energy availability from NPCIL Stations for FY 2015-16 the following is considered:

**Allocation of Share:** The Commission has considered the gross percentage of firm allocation and allocation of the unallocated quota from the various generating stations including NAPS, RAPP (Unit 3, 4, 5 & 6) as specified in latest revised allocation order no. NRPC/ OPR/ 103/02/2014-15 dated December 30<sup>th</sup>, 2014 of NRPC, Govt. of India;

**Gross Energy Availability:** The Commission has estimated the gross energy availability from the existing NPCIL stations based on the installed capacity and the average of figures of Plant Load Factor for the first nine months actuals of FY 2014-15. The Net energy sent out is worked out after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009;

**Energy Available to the Petitioner:** The effective share from the stations has been applied on the energy sent out to arrive at the energy to be purchased by the Petitioner from respective stations.

**Merit order Dispatch:** The Commission has considered the nuclear plants as must run and has not subjected them for merit order dispatch.

The Commission has considered the following assumptions to arrive at the Power purchase cost for FY 2015-16 from the NPCIL stations:

**Variable Charges:** The Commission has considered the average variable cost for the period October 2014 to December 2014 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2015-16.

**Other Generating Stations –Nathpa Jhakri (SJVN),BBMB (including Dehar & Pong), Koteshwar and Tehri (THDC) and Jhajjar**

While estimating the energy availability from above hydro generating Stations for FY 2015-16, the following is considered:

**Allocation of Share:** The Commission has considered the gross percentage of firm allocation and allocation of the unallocated quota from the above mentioned generating stations except BBMB (including Dehar & Pong) as specified in latest revised allocation order no. NRPC/ OPR/ 103/02/2014-15 dated 30-12-2014 of NRPC, Govt. of India. The Petitioner has an allocation of 11 lakh units (1 LU + 10 LU) from BBMB in addition to an allocation of 3.5% from BBMB (including Dehar & Pong). The allocation from BBMB is considered at the level approved for review of FY 2014-15.

**Gross Energy Availability:** The Commission has estimated the gross energy availability from the existing hydro generating stations based on the first nine months actuals of FY 2014-15. The Net energy sent out is worked out after considering the applicable auxiliary consumption as per the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009;

**Energy Available to the Petitioner:** The effective share from the stations has been applied on the energy sent out to arrive at the energy to be purchased by the Petitioner from respective stations.

The Commission has considered the following assumptions to arrive at the Power purchase cost for FY 2015-16 from the above-mentioned hydro generating stations

and APCPL- STPP:

**Fixed Charges:** The fixed charges are considered at the level approved for review at FY 2014-15.

**Variable Charges:** The Commission has considered the average variable cost for the period October 2014 to December 2014 submitted by the Petitioner (verified from the bills) for consideration of the per unit variable charges for the FY 2015-16.

### Renewable Energy Obligation

As per JERC (Procurement of Renewable Energy) Regulations 2010 clause 1 sub clause (1) Each distribution licensee shall purchase electricity (in kWh) from renewable energy sources, at a defined minimum percentage of the total consumption of all the consumers in its area during a year.

The Petitioner has to purchase 3.55% of total energy purchase from renewable sources for FY 2015-16 that includes 0.85% for Solar and 2.70% for Non-Solar. For FY 2015-16 of the energy sales, the Petitioner has submitted that it will meet its entire RPO obligation through purchase of Renewable Energy Certificates (RECs) and requested the Commission for approval of Rs. 14.55 Crore for the purchase of RECs during FY 2015-16. The actual requirement of REC Certificates along with the cost is summarized below:

**Table 6.12: RPO Compliance for FY 2015-16**

Particulars	(Rs. Cr)
Sales Within State MU	1555.75
RPO Obligation (in %)	
- Solar	0.85%
-Non Solar	2.70%
RPO Obligation (in MU)	
- Solar	13.22
Solar Power available in Chandigarh Estimated MUs	3.50
RPOs to be bought MUs	9.72
-Non Solar	42.01

<b>Particulars</b>	
Cumulative Shortfall in RPO Compliance after adjusting purchase approved for FY 2014-15	
- <i>Solar</i>	0.77
- <i>Non Solar</i>	0
<b>Floor Price of REC Certificates /MWH</b>	
- <i>Solar</i>	3500
- <i>Non Solar</i>	1500
<b>Provision for RPO Compliance Rs. Crore</b>	
- <b>Buying Solar Power from Roof Tops @Rs 6.80 / KWh</b>	2.38
- <b><i>Solar (Balance RPOs) as RECs Rs. Crore</i></b>	4.17
- <b><i>Non Solar Rs. Crore</i></b>	0
- <b><i>Total Rs. Crore</i></b>	<b>6.55</b>

The Commission already highlighted that in the Tariff Order Dated April 11<sup>th</sup>, 2014 solar power will also be available from Rooftop Solar Photovoltaic Power Projects of Chandigarh Renewal Energy Science & Technology Promotion Society (CREST) during the FY 2014-15 which will ensure RPO Compliance (Solar) to certain extent.

#### **Short Term Power Purchase for meeting the energy shortfall**

The Commission has considered the purchase of power of 329 MU for meeting the shortfall of energy, which is likely to be met at the provisional rate of Rs. 3.33 per kWh as the actuals of first nine months of FY 2014-15.

#### **Transmission Charges (PGCIL, NRLDC F&C and Reactive Energy Charges)**

The Commission considered the PGCIL, NRLDC, F&C & Reactive Energy Charges as proposed by the Petitioner, which totals to Rs. 36.20 Crore.

The Commission's approval of Power Purchase Quantum for FY 2015-16 is indicated in Table 6.13 below. The Cost of Power Purchase for FY 2015-16 as approved by the Commission is as in Table 6.14.

Table 6.13: Power purchase quantum for FY 2015-16-Commission's Approval

Sl. No.	Source	Capacity (MW)	Average PLF	Latest Entitlement		Gross Generation (MUs)	Auxiliary Consumption (%)	Net Generation (MUs)	Purchase (MUs)	PGCIL Losses (MUs)	Energy available at periphery (MUs)
				%	MW						
<b>A</b>	<b>Power Purchase from Renewable</b>										
1	(2.75% for – Non-Solar) RPO (IEX)										
2	(0.85% for Solar)										
<b>B</b>	<b>NPCIL</b>										
1	NAPS	440	65.42	1.63%	7.17	2521.55	10.00%	2269.39	36.99	1.40	35.59
2	RAPP (Unit 3 & 4)-B	440	94.78	0.66%	2.9	3653.20	10.00%	3287.88	21.70	0.82	20.88
3	RAPP (Unit 5 & 6)-C	440	69.51	1.19%	5.24	2679.19	10.00%	2411.27	28.69	1.08	27.61
<b>C</b>	<b>Unscheduled Interchange</b>										
<b>D</b>	<b>BBMB</b>										
	BBMB 3.5%	2711	35.81	3.50%	94.89	8504.29	2.00%	8334.20	291.70	11.03	280.67
	BBMB 1 LU								36.50	1.38	35.12
	BBMB 10 LU								365.00	13.80	351.20
	PONG										
	DEHAR										
<b>E</b>	<b>THDC</b>										
	Koteshwar	400	36.08	0.70%	2.8	1264.24	2.00%	1238.96	8.67	0.33	8.34

Sl. No.	Source	Capacity (MW)	Average PLF	Latest Entitlement		Gross Generation (MUs)	Auxiliary Consumption (%)	Net Generation (MUs)	Purchase (MUs)	PGCIL Losses (MUs)	Energy available at periphery (MUs)
				%	MW						
	<i>Tehri</i>	1000	35.68	0.94%	9.4	3125.57	2.00%	3063.06	28.79	1.09	27.70
	<i>Supp+Rebate</i>										
	<i>Total</i>										
<b>F</b>	<b>SJVNL</b>										
	<i>NATHPA JHAKRI</i>	1500	62.89	0.87%	13.05	8263.75	1.20%	8164.58	71.03	2.69	68.35
	<i>RAMPUR (U Q)</i>	412	30.55	0.31%	1.28	1102.59	1.20%	1089.36	3.38	0.13	3.25
	<i>Total</i>										
	<b>NTPC, NHPC &amp;</b>										
<b>G</b>	<b>Other Stations</b>										
	<i>Salal</i>	690	65.09	0.27%	1.86	3934.30	1.00%	3894.96	10.52	0.40	10.12
	<i>Uri I</i>	480	78.12	0.62%	2.98	3284.79	1.20%	3245.37	20.12	0.76	19.36
	<i>Uri II</i>	240	-	0.81%	1.94	2346.28	1.20%	2318.12	18.78	0.71	18.07
	<i>Singrauli</i>	2000	84.41	0.19%	3.8	14788.63	7.25%	13716.46	26.06	0.99	25.08
	<i>Chamera I</i>	540	54.42	3.90%	21.06	2574.28	1.20%	2543.39	99.19	3.75	95.44
	<i>Tanakpur</i>	94	43.49	1.28%	1.2	358.11	1.00%	354.53	4.54	0.17	4.37
	<i>Rihand III</i>	1000	79.17	0.77%	7.65	6935.29	9.00%	6311.12	48.60	1.84	46.76
	<i>Rihand II</i>	1000	92.12	1.00%	10	8069.71	9.00%	7343.44	73.43	2.78	70.66
	<i>Rihand I</i>	1000	81.18	1.18%	11.8	7111.37	7.50%	6578.02	77.62	2.93	74.69
	<i>Chamera II</i>	300	65.38	1.28%	3.84	1718.19	1.20%	1697.57	21.73	0.82	20.91
	<i>Dhauliganga</i>	290	33.25	1.23%	3.57	844.68	1.20%	834.55	10.26	0.39	9.88
	<i>Chamara III</i>	120	-	1.11%	1.33	1203.62	1.20%	1189.18	13.20	0.50	12.70
	<i>Unchahar III</i>	210	-	0.70%	1.47	2289.57	9.00%	2083.51	14.58	0.55	14.03

Sl. No.	Source	Capacity (MW)	Average PLF	Latest Entitlement		Gross Generation (MUs)	Auxiliary Consumption (%)	Net Generation (MUs)	Purchase (MUs)	PGCIL Losses (MUs)	Energy available at periphery (MUs)
				%	MW						
	<i>Unchahar II</i>	420	85.77	0.93%	3.91	3155.65	9.00%	2871.64	26.71	1.01	25.70
	<i>Unchahar I</i>	420	97.95	0.55%	2.31	3603.78	9.00%	3279.44	18.04	0.68	17.36
	<i>Sewa II</i>	120	52.86	1.34%	1.61	555.66	1.20%	549.00	7.36	0.28	7.08
	<i>Dulhasti</i>	390	73.55	0.98%	3.82	2512.76	1.20%	2482.61	24.33	0.92	23.41
	<i>Kahalgaon II</i>	1500	80.11	0.20%	3	10526.45	6.50%	9842.23	19.68	0.74	18.94
	<i>Dadri II</i>	980	83.06	0.21%	2.06	7130.53	6.00%	6702.70	14.08	0.53	13.54
	<i>Anta</i>	419.3	51.2	1.70%	7.13	1880.61	3.00%	1824.19	31.01	1.17	29.84
	<i>Auriya</i>	663	28.45	1.10%	7.29	1652.34	3.00%	1602.77	17.63	0.67	16.96
	<i>Dadri</i>	830	34.67	0.85%	7.06	2520.79	3.00%	2445.16	20.78	0.79	20.00
	<i>Parbathi III</i>	520	18.1	1.11%	5.77	824.49	1.20%	814.60	9.04	0.34	8.70
<b>H</b>	<b>APCPL</b>										
	<i>Jajjar</i>	1500	66.78	0.26%	3.9	8774.89	9.00%	7985.15	20.76	0.78	19.98
	<i>Exchange</i>										
	<i>Short term power</i>								330.63	12.50	318.13
	<i>Deviation settlement</i>										
	<i>Solar</i>								3.50		3.50
	<b>Power Purchase Quantum</b>								<b>1874.63</b>	<b>70.73</b>	<b>1803.91</b>

The gross power purchase approved is 1874.64 MU against 1875.87 MU projected by the Petitioner due to reduced requirements after correcting the T&D losses as already approved by the Commission vide its order dated 5 May 2014.

Table 6.14: Power purchase cost for FY 2015-16- Commission's Approval

Sl. No.	Source	Merit Order Purchase at Approved Losses					
		Energy Units	Fixed charges	Variable Charges	Variable charges	Other charges	Gross Total
		(MU)	(Rs. Crore)	(Rs./kWh)	(Rs. Crore)	(Rs. Crore)	(Rs. Crore)
<b>A</b>	<b>Power Purchase from Renewable</b>						
	<i>(2.70% for – Non-Solar) RPO (IEX)</i>				6.15		6.15
	<i>(0..85% for Solar)</i>				8.4		8.4
<b>B</b>	<b>NPCIL</b>						
	<i>NAPS</i>	36.99	0	2.37	8.77		8.77
	<i>RAPP (Unit 3 &amp; 4)-B</i>	21.70	0	2.74	5.95		5.95
	<i>RAPP (Unit 5 &amp; 6)-C</i>	28.69	0	3.41	9.78		9.78
<b>C</b>	<b>Unscheduled Interchange</b>						
<b>D</b>	<b>BBMB</b>						
	<i>BBMB 3.5%</i>	291.70	0	0.17	4.96		4.96
	<i>BBMB 1 LU</i>	36.50	0	4.25	15.51		15.51
	<i>BBMB 10 LU</i>	365.00	0	5.42	197.83		197.83
	<i>PONG</i>						
	<i>DEHAR</i>						
<b>E</b>	<b>THDC</b>						
	<i>Koteshwar</i>	8.67	1.51	1.95	1.69		3.20



Sl. No.	Source	Merit Order Purchase at Approved Losses					Gross Total
		Energy Units	Fixed charges	Variable Charges	Variable charges	Other charges	
		(MU)	(Rs. Crore)	(Rs./kWh)	(Rs. Crore)	(Rs. Crore)	
	<i>Tehri</i>	28.79	6.41	2.3	6.62		13.03
	<i>Supp + Rebate</i>						
	<i>Total</i>						
<b>F</b>	<b>SJVNL</b>						
	<i>NATHPA JHAKRI</i>	71.03	9.29	1.44	10.23		19.52
	<i>RAMPUR (U Q)</i>	3.38	0.94	2.83	0.96		1.90
	<i>Supp + Rebate</i>						0.00
	<i>Total</i>						
<b>G</b>	<b>NTPC, NHPC &amp; Other Stations</b>						
	<i>Salal</i>	10.52	0.49	0.48	0.50		0.99
	<i>Uri I</i>	20.12	1.53	0.8	1.61		3.14
	<i>Uri II</i>	18.78	2.92	1.55	2.91		5.83
	<i>Singrauli</i>	26.06	1.67	1.23	3.21		4.88
	<i>Chamera I</i>	99.19	6.55	0.9	8.93		15.48
	<i>Tanakpur</i>	4.54	0.73	1.15	0.52		1.25
	<i>Rihand III</i>	48.60	7.03	1.73	8.41		15.44
	<i>Rihand II</i>	73.43	6.81	1.73	12.70		19.51
	<i>Rihand I</i>	77.62	6.72	1.66	12.89		19.61
	<i>Chamera II</i>	21.73	2.83	1.4	3.04		5.87
	<i>Dhauliganga</i>	10.26	1.12	1.45	1.49		2.61
	<i>Chamera III</i>	13.20	2.6	2.07	2.73		5.33
	<i>Unchahar III</i>	14.58	1.49	1.43	2.09		3.58

Sl. No.	Source	Merit Order Purchase at Approved Losses					Gross Total
		Energy Units	Fixed charges	Variable Charges	Variable charges	Other charges	
		(MU)	(Rs. Crore)	(Rs./kWh)	(Rs. Crore)	(Rs. Crore)	
	<i>Unchahar II</i>	26.71	2.55	2.19	5.85		8.40
	<i>Unchahar I</i>	18.04	1.43	2.21	3.99		5.42
	<i>Sewa II</i>	7.36	1.79	2.34	1.72		3.51
	<i>Dulhasti</i>	24.33	6.24	3.08	7.49		13.73
	<i>Kahalgaon II</i>	19.68	2.52	2.42	4.76		7.28
	<i>Dadri II</i>	14.08	2.8	3.87	5.45		8.25
	<i>Anta</i>	31.01	3.6	3.44	10.67		14.27
	<i>Auriya</i>	17.63	2.79	4.47	7.88		10.67
	<i>Dadri</i>	20.78	2.76	4.36	9.06		11.82
	<i>Parbathi III</i>	9.04	0.95	3.18	2.88		3.83
	<i>Supp+Rebate</i>						
	<b>APCPL</b>						
	<i>Jajjar</i>	20.76	3.97	4.23	8.78		12.75
	<b>Other Charges</b>						
	<i>Banking J&amp;K</i>						0
	<i>PTC</i>						0
	<i>NETL</i>						0
	<i>supp+Rebate</i>						0
	<b>Sub Total</b>						
	<i>Exchange</i>						
	<i>Short term power</i>	330.63		3.33	110.10		110.10
	<i>Deviation settlement</i>						

Sl. No.	Source	Merit Order Purchase at Approved Losses					Gross Total
		Energy Units	Fixed charges	Variable Charges	Variable charges	Other charges	
		(MU)	(Rs. Crore)	(Rs./kWh)	(Rs. Crore)	(Rs. Crore)	
	<i>Solar</i>	3.5		6.8	2.38		2.38
	<b>Grand Total</b>	<b>1874.64</b>	<b>92.04</b>		<b>518.88</b>	<b>0.00</b>	<b>610.92</b>
	<b>PGCIL and other charges</b>						
	<i>PGCIL Charges</i>						35.79
	<i>NRLDC F &amp; C</i>						0.35
	<i>Reactive Energy Charges</i>						0.06
	<b>Total Power Purchase Cost</b>						<b>647.12</b>

The power purchase cost approved is Rs. 647.12 Crore against Rs. 719.99 Crore projected by the Petitioner, for the following reasons:

- i. The T&D losses are approved at 13.75% against 14.50% projected by the Petitioner.
- ii. The fixed charges are considered by the Commission based on actuals of first 9 months of FY 2014-15, whereas the Petitioner considered at the level of actuals of FY 2013-14, which are on higher side.
- iii. The Petitioner has escalated by 5% the variable charge over the actuals of FY 2013-14, whereas the Commission considered the per unit variable charges at the overall rate of October to December 2014 actuals.

**The Commission considers the Power purchase cost for ARR for FY 2015-16 at Rs. 647.12 Crore for procurement of 1874.63 MU of energy and Renewable Energy Certificates to meet the RPO compliance for FY 2015-16 as reasonable and approves the same for ARR of FY 2015-16.**

Further, any variation on account of Fuel and Power Purchase cost shall be calculated as per the formula specified by the Commission separately and any impact shall be passed directly to the consumers. The formula will be applicable from FY 2015-16.

The licensee will compute fuel and power procurement cost variations on quarterly basis and adjustment shall be made in consumer bills starting after a month following the end of the quarter based on the Fuel & Power Purchase Cost Adjustment (FPPCA) formula notified separately by the Commission. For the purpose of calculation using FPPCA formula notified by the Commission, **the approved per unit cost of power purchase (Approved) for use in the FPPCA formula (paise per unit) is 393 paise per unit for FY 2015-16.** The approved per unit cost of power purchase for FY 2015-16 to be considered in the FPPCA formula excludes transmission charges of PGCIL, SLDC charges, RLDC charges and charges for reactive energy.

## **6.8 Operations and Maintenance Expenses for FY 2015-16**

### **Petitioner's Submission**

The Petitioner has submitted that the Operation & Maintenance Expenses consists of three elements viz., Employee Expenses, A&G Expense and R&M Expense. Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses. Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits. Repairs and Maintenance Expenses go towards the day to day upkeep of the distribution network of the CED and form an integral part

of the CED's efforts towards reliable and quality power supply as well as in the reduction of losses in the system.

The CED has stated that Regulation 21 of JERC Regulations 2014 specifies that the Commission shall stipulate a separate trajectory of norms for each component of O&M expenses. The norms may consider no of employees per 1000 customers and per substation, A&G expenses per employee, R&M expenses as percentage of assets, productivity improvement etc. The norms shall exclude onetime expenses such as expenses arising due to change in accounting policy, arrears etc, expenses beyond control of utility, the justified inflation shall apply while projecting the O&M expenses for a year.

### **Employees Expenses**

The CED has submitted that as per Commission's order dated December 29th, 2014 the total sanctioned posts for CED are 1490 no's. Accordingly the total employees are estimated for FY 2015-16. Total Number of employees estimated for FY 2015-16 is given in the Table below:

**Table 6.15: Number of Employees for FY 2015-16- Petitioner's Projections**

(Rs. Cr)		
<b>S. No</b>	<b>Particulars</b>	<b>FY 2015-16</b>
1	No of Employees as on 1 <sup>st</sup> April	1025
2	No of Employees to be added during the year	67
3	Employees on deputation to be added during the year	-
4	Total No. of Employees (1+2+3)	1092
5	No of Employees Retired during the year	56
6	No of Employees at the end of Financial Year (4-5)	1036

The Petitioner has further submitted that as per Regulation 21.1 employees cost shall be computed as per the approved norms escalated by wholesale price index (WPI) adjusted by provisions for expenses beyond control of the Distribution Licensee and one time expected expenses such as recovery of terminal benefits, implication of pay Commission, arrears and interim relief. The Employee expenses shall be governed by the following formula

$$EMP_n = (EMP_b * WPI \text{ Inflation}) + Provision$$

Where:

*EMP<sub>n</sub>*: Employee expense for the year n

*EMP<sub>b</sub>*: Including yearly increments of employees, bonus, promotion, VRS, employee expenses as per norm

*WPI Inflation*: is the average increase in the wholesale price index (WPI) for immediately preceding three years

*Provision*: Provision for expenses as necessitated by the licensee due to expansion of the consumer base, yearly increments of the employees, and any expected one-time expenses as specified above

CED has not considered any one time expenses for projecting the employees' expenses for FY 2015-16 and hence provisions are kept as 0. The average increase in WPI for immediately three years has been 7.42% which is considered as inflation factor for escalating the estimated Employees expenses for FY 2014-15. The projected Employees expenses for FY 2015-16 is given below and requested to approve the same.

**Table 6.16: Employees' Expenses for FY 2015-16 – Petitioner's Projections**

(Rs. Cr)

Particulars	FY 2015-16
Employee Expenses	60.45

**Commission's Analysis**

As per the regulation 27 of JERC tariff regulations 2009

***"27. Operation and Maintenance Expenses***

*1) Operation & Maintenance expenses ' or ' O&M expenses' shall mean repair and maintenance (R&M) expenses, employee expenses and administrative & general (A&G) expenses including insurance.*

*While determining the O&M expenses for generation functions within the State, the Commission shall be guided, as far as feasible, by the principles and*

*methodologies of CERC on the manner, as amended from time to time.*

2) *While determining the O&M expenses for transmission functions within the State, the Commission shall be guided, as far as feasible by the principles and methodologies specified by CERC on the matter, as amended from time to time:*

*Provided further that the Commission may, if it considers it just, practical and proper considering the size of the total transmission system of, and the quantum of electricity handled by, an integrated Utility, treat its transmission system as an integral part of its distribution system itself.*

3) *O&M expenses for distribution functions shall be determined by the Commission as follows:*

*O&M expenses as approved by the Commission for the first time for a year shall be considered as base O&M expenses for determination of O&M expenses for subsequent years;*

*Base O&M expenses as above shall be adjusted according to variation in the rate of WPI per annum to determine the O&M expenses for subsequent year, where WPI is the Wholesale Price Index on April 1 of the relevant year;*

*In case of unbundling of the Electricity Department and formation of separate distribution companies, the Commission will make suitable assessment of base O&M expenses of individual distribution companies separately and allow O&M expenses for subsequent years for individual companies on the basis of such estimation and above principle.*

4) *O&M expenses of assets taken on lease/hire-purchase and those created out of the consumers' contribution shall be considered in case the generating company or the licensee has the responsibility for its operation and maintenance and bear O&M expenses.*

5) *O&M expenses for gross fixed assets added during the year shall be considered from the date of Commissioning on pro-rata basis.*

6) O&M expenses for integrated Utility shall be determined by the Commission on the norms and principles indicated above''

As specified in Regulation 27(3) (b) of JERC Regulation, 2009 the O&M expenses shall be adjusted to variation in rate of WPI per annum to determine the O&M expenses for subsequent year. The WPI inflation Index used for computation of Employee Cost, A&G Expenses and R&M Expenses, is given in Table below:

**Table 6.17: Employees' Expenses for FY 2015-16 – Commission's Analysis**

S. No.	Financial Year	Average WPI
1	FY 2013-14	177.64
2	FY 2012-13	167.62
3	Increase over previous year (%) $[(1-2)/2]*100$	5.98%

WPI Yearly Wholesale Price Index, All Commodities, Published by Office of the Economic Adviser, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP). WPI=100 with base year 2004-05

The Commission approves employee expenses of Rs. 60.45 Crore in APR for FY 2014-15 as a base for estimating the employee expenses for FY 2015-16, was asked by the Petitioner. This amount is within the amount with WPI inflation over FY 2013-14.

The Petitioner has increased the same by 3% over FY 2014-15 approved employee expense which is within escalation of WPI and CPI combined in weighted average of 40:60. Though, the actual amount for FY 2014-15 is Rs. 48.83 Crore which got reduced due to 25 employees getting retired during the year thus reducing employees strength from 1065 to 1025. An amount of Rs. 60.45 Crore as projected by CED for FY 2015-16 is considered approved.

The projected employee expenses considered for FY 2015-16 is shown here under Table 6.16.



**Table 6.18: Employees' Expenses: FY 2015-16 -Commission's Approval**

Particulars	FY 2015-16 (Rs. Crore)
Employees' Expenses	60.45

### **Administration and General Expenses**

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

The Petitioner has submitted that as per Regulation clause 21.3 of the MYT Regulations 2014, the Administration & general expenses shall be calculated as per the norm escalated by wholesale price index and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by distribution licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by the following formula

$$A\&G_n = (A\&G_b * WPI \text{ Inflation}) + Provision$$

*Where:*

*A&G<sub>n</sub>: A&G expense for the year n*

*A&G<sub>b</sub>: A&G Expenses as per the norms*

*WPI Inflation: is the average increase in the wholesale price index (WPI) for immediately preceding three years*

*Provision: Cost for initiatives or other one-time expenses as proposed by the distribution licensee and validated by the Commission*

CED has not considered any one time expenses for projecting the A&G expenses for MYT period and hence provisions are kept as 0. The average increase in WPI for immediately three years has been 7.42% which is considered as inflation factor for escalating the estimated A&G expenses for FY 2014-15. The projected A&G expenses for FY 2015-16 is given below, the Commission is requested to approve the same as projected below by the Petitioner.

**Table 6.19: A&G Expenses for the FY 2015-16- Petitioner’s Projections**

(Rs Crore)	
Particulars	FY 2015-16
Administration and General Expenses	2.81

**Commission’s Analysis**

The Commission has considered Administration & General expenses of Rs 2.58 Crore in APR for FY 2014-15 as base A&G expenses and estimated the A&G expenses for FY 2015-16 with escalation for WPI index increase of 5.98% in FY 2013-14 over FY 2012-13. The A&G expenses approved for FY 2015-16 are shown here under.

**Table 6.20: A&G Expenses for FY 2015-16 – Commission’s Approval**

(Rs Crore)	
Particulars	FY 2015-16
Administration and General Expenses	2.73

**Repair and Maintenance Expenses**

**Petitioner’s Submission**

The Petitioner has stated that as per Regulation 21.2 of JERC regulations 2014 , the Repair and Maintenance expenses shall be calculated as percentage (as per norms defined) of opening gross fixed assets for the year governed by following formula

$$R\&Mn = Kb * GFAn * Inflation Index$$

Where:

*R&Mn*: R&M expense for the Financial Year n

*Kb*: Percentage Point as per the norms

*GFAn* : Opening Gross Fixed Assets for nth Year

*GFA*: Gross Fixed Assets at the beginning of the Financial year

*Inflation Index* is CPI : WPI :: 60 : 40

*CPI is Consumer Price Index issued by Government of India and these indices are for immediately preceding three years*

*WPI is Wholesale Price Index issued by Government of India and these indices are for immediately preceding three years*

The actual R&M expenses are computed as 2.33% of the opening gross assets for the year 2013-14 and estimated as 2.59% for year 2014-15. The average for two years 2.46% is considered as K factor for computing base for R&M expenses.

The average increase in WPI for immediately three years has been 7.42% and CPI for immediately three years computed as 9.50%. The inflation index is computed as 8.67% after giving weightage of 60% to CPI and 40% to WPI. The same percentage is used for escalating the R&M expenses. The projected R&M expenses for FY 2015-16 are given below and requested to approve the same.

**Table 6.21: Projected R&M Expenses for FY 2015-16- Petitioner's Submission**

<b>(Rs. Cr)</b>	
<b>Particulars</b>	<b>FY 2015-16</b>
Repair and Maintenance Expenses	11.35

### **Commission's Analysis**

The Commission is of the view that adequate R&M expenses are necessary for maintenance of infrastructure and for ensuring proper standard of performance of the integrated utility. The Commission has considered the repair and maintenance of expenses of Rs 10.68 Crore as approved in APR for the FY 2014-15 as base R&M expenses and estimated the repair and maintenance expenses for FY 2015-16 with escalation for WPI inflation index increase of 5.98%. The R&M expenses considered for FY 2015-16 are shown here under in the Table.

**Table 6.22: R&M Expenses FY 2015-16- Commission's Approval**

<b>(Rs. Crore)</b>	
<b>Particulars</b>	<b>FY 2015-16</b>
Repair and Maintenance Expenses	11.32

## Summary of O&M Expenses

### Petitioner's Submission

The Petitioner has submitted that the O&M expenses for FY 2015-16 period as shown in the table below and requested the Commission to approve the same.

**Table 6.23: Projected O&M Expenses for FY 2015-16- Petitioner's Submission**

(Rs. Cr)	
Particulars	FY 2015-16
Employees' Expenses	60.45
Administration and General Expenses	2.81
Repair and Maintenance Expenses	11.35
<b>Total Operation and Maintenance Expenses</b>	<b>74.62</b>

### Commission's Analysis

The O&M expenditure approved by the Commission for FY 2015-16 as given below:

**Table 6.24: O&M Expenses FY 2015-16 - Commission's Approval**

Particulars	(Rs. Cr)	
	FY 2015-16	
	Submitted by CED	Approved by the Commission
Employee Expenses	60.45	60.45
Administration and General Expenses	2.81	2.73
Repair and Maintenance Expenses	11.35	11.32
<b>Total Operation and Maintenance Expenses</b>	<b>74.62</b>	<b>74.50</b>

## 6.9 GFA and Depreciation

### Petitioner's Submission

The Petitioner has stated that the opening assets for FY 2015-16 are projected as Rs 425.42 Crore. The CAPEX Plan proposals (scheme wise) for FY 15-16 has been formulated by Chandigarh Electricity Department in order to effect better planning, budgeting and monitoring at macro and micro levels. Accordingly Chandigarh Electricity Department has prepared the Capex plan taking into consideration all the factors which would affect the operations of the company. The Capex plan includes the details of various capital expenditure schemes in

the identified areas and their respective estimates for FY 2015-16. The capital expenditure plan has been separately prepared into two categories:

- a. Capital Investment Plan for 66 KV and above works
- b. Capital Investment Plan for 11 KV and below works

The Petitioner has submitted the capital Expenditure and capitalization for FY 2015-16 as summarized in the table below:

**Table 6.25: Projected Capital Expenditure and Capitalization for FY 2015-16- Petitioner's Submission**

<b>(Rs. Cr)</b>	
<b>Particulars</b>	<b>FY 2015-16</b>
Capital Expenditure	54.47
Capitalization	9.96

The Petitioner has further submitted that in absence of the Fixed Asset Register and audited annual accounts, the Commission had disallowed the GFA in previous tariff order and therefore not considered the same for ARR determination process. CED is making every effort to comply with the Commission's direction on preparing the Fixed Asset Register and tendering is under process for the same. CED has requested the Commission to approve the opening and closing balances of fixed assets in the table below as this would not put one time extra burden on UT of Chandigarh consumers when Commission approves all the fixed assets in one go in future.

**Table 6.26: Projected Fixed Assets for FY 2015-16- Petitioner's Submission**

<b>(Rs. Cr)</b>	
<b>Particulars</b>	<b>FY 2015-16</b>
Opening Balance of Assets	425.42
Addition During the year	9.96
Closing balance of assets	435.38

The Petitioner has submitted the Depreciation for FY 2015-16 estimated on the average rate of 5.28% and requested to approve the depreciation as computed below:

**Table 6.27: Projected Depreciation for FY 2015-16- Petitioner’s Submission**

	(Rs. Cr)
Particulars	FY 2015-16
Average Assets	430.40
Rate of Depreciation	5.28%
Depreciation for the year	22.72

**Commission’s Analysis**

**GFA:**

The Commission has observed that the CED has not submitted updated fixed assets register till now. In absence of updated fixed asset registers to arrive at the historical value of asset, the Commission has adopted the closing balance of assets as approved in the APR for FY 2014-15 and the projected capitalisation of Rs. 9.96 Crore during FY 2015-16 has been considered and accordingly, GFA has been computed for FY 2015-16. The GFA movement is given in the table below:

**Table 6.28: Fixed Assets for FY 2015-16 - Commission’s Analysis**

	(Rs. Cr)
Particulars	FY 2015-16
Opening Balance of Assets	65.64
Addition During the year	9.96
Closing balance of assets	75.60

**Commission’s Analysis**

**Depreciation:**

As per Regulation 26 of JERC (Terms and Conditions for Determination of Tariff) Regulations, 2009 specifies that depreciation for the assets shall be calculated annually at the rates specified by CERC from time to time. The effective rate of depreciation for assets is 5.28% vide Appendix-III (Depreciation schedule of CERC Terms and Conditions of Tariff Regulations, 2009). In view of above, the Commission considers the depreciation of Rs. 3.73 Crore for FY 2015-16, as shown in the Table below:

**Table 6.29: Depreciation for FY 2015-16- Commission's Approval**

		(Rs. Cr)
Particulars	FY 2015-16	
Average Assets	70.62	
Rate of Depreciation	5.28%	
Depreciation for the year	3.73	

**The Commission approves the depreciation at Rs. 3.73 Crore for FY 2015-16.**

## 6.10 Interest on Loan

### Petitioner's Submission

The Petitioner has stated that as per Regulation 24 (b) of JERC Regulations, 2014, if the equity deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan provided that where equity actually deployed is less than 30% of the capital cost, the actual loan shall be considered for determination of interest on loans. The repayment for the control period shall be deemed to be equal to the depreciation allowed for the year, the entire capital expenditure incurred by CED had been funded through equity infusion by GOI through budgetary support without any external borrowings. For the purpose of determination of ARR, CED has considered debt equity ratio of 70:30 for estimating normative loan for MYT control period. Repayment has been considered to be equal to the depreciation. The interest at the SBI PLR rate of 14.75% as on 1<sup>st</sup> April 2015 has been applied on the average normative debt in order to project the amount of normative interest on normative long-term loans for FY 2015-16 and requested the Commission to approve the interest on normative loans as computed in the table below.

**Table 6.30: Projected Interest on Loan for FY 2015-16- Petitioner's Submission**

		(Rs. Cr)
S. No	Particulars	FY 2015-16
1	Opening Normative Loan	253.72
2	Add: Normative Loan during the year	6.97
3	Less: Normative Repayment	22.72
4	Closing Normative Loan	237.96
5	Average Normative Loan	245.84

<b>S. No</b>	<b>Particulars</b>	<b>FY 2015-16</b>
6	Rate of Interest	14.75%
7	Interest on Normative Loan including bank charges	36.26

**Commission’s Analysis**

The Commission is of the view that the basic requirement for consideration of interest on loans is adequate information of the value of fixed assets of the Utility in service (net fixed assets) at the beginning of such year and funding pattern as well as terms and conditions of funding of capital assets.

In the instant case, the Licensee has not provided the actual value of fixed assets, hence the servicing of assets in the form of interest on loan and return on assets is indeterminate at this stage on the opening GFA.

However, the Commission has considered the closing normative loan of Rs. 44.00 Crore as approved in APR for FY 2014-15 and added normative loan addition of Rs. 6.97 Crore being 70% of addition in GFA for FY 2015-16 to calculate the interest on normative loan amount. The Commission has considered the prevailing PLR of the SBI @ 14.75% as per Regulation 25(2) of JERC Regulations, 2009 for FY 2015-16 and computed the interest on loan as given in the table below:

**Table 6.31: Interest on normative Loan for FY 2015-16 - Commission’s Approval**

		<b>(Rs. Cr)</b>
<b>S. No</b>	<b>Particulars</b>	<b>FY 2015-16</b>
1	Opening Normative Loan	44.00
2	Add: Normative Loan during the year	6.97
3	Less: Normative Repayment	3.73
4	Closing Normative Loan	47.24
5	Average Normative Loan	45.62
6	Rate of Interest	14.75%
7	Interest on Normative Loan including bank charges	6.73

**The Commission approves the interest on normative loan at Rs. 6.73 Crore for FY 2015-16.**



## 6.11 Interest on Consumer Security Deposit

### Petitioner's Submission

The Petitioner has stated that the provision of Regulation 25 (4) of Tariff Regulations 2009 and in accordance with Clause 47(4) of Electricity Act 2003 the distribution licensee is to pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the Commission. The CED is obligated to pay interest on consumer security deposit and entitled to claim the same through tariff.

The net addition after refund in the security deposit is estimated to be Rs 3 Crore in the FY 2015-16. As per clause 6.10(3) Supply Code regulations 2010 concerning the security deposit, the consumer is required to pay only additional deposit based on his average consumption during the period concerned and the tariff applicable if it exceeded the amount of security deposit held by the licensee by 20%. Hence in the case as the additional security deposit required to be deposited is within limit of 20% , no additional security deposit is required to be deposited which is a reason of lesser projected addition in Security deposit for FY 2015-16.

The opening and closing balances and addition during the FY 2015-16 and claim of interest on security deposit are as given in the table below. CED has requested the Commission to approve the same.

**Table 6.32: Projected Interest on Consumer Security Deposit for FY 2015-16- Petitioner's Submission**

(Rs. Cr)	
Particulars	FY 2015-16
Opening Consumer Security Deposit	35.55
Net Addition During the year	3.00
Closing Consumer Security Deposit	38.55
Average Deposit	37.05
Bank Rate	8.50%
Interest on Consumer Security Deposit	3.15

### Commission's Analysis

The interest on security deposits from consumers shall be paid to the consumer as per section 47(4) of the Electricity Act, 2003 and regulation 25(4) of the JERC Tariff Regulations 2009 and the same is allowed as expenditure in the ARR.

As per Clause 47(4) of the Electricity Act, 2003 and as specified in regulation 25(4) of JERC Tariff Regulations 2009, the distribution licensee shall pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the Commission. Accordingly the Commission has considered the Bank rate of interest 8.50% per annum to the consumers on their Security deposit for the FY 2015-16 as shown in the table below.

**Table 6.33: Interest on Consumer Security Deposit for FY 2015-16-- Commission's Approval**

	(Rs. Cr)
Particulars	FY 2015-16
Opening Consumer Security Deposit	35.55
Net Addition During the year	3.00
Closing Consumer Security Deposit	38.55
Average Deposit	37.05
Bank Rate	8.50%
Interest on Consumer Security Deposit	3.15

**The Commission approves interest on consumer security deposit at Rs. 3.15 Cr for FY 2015-16.**

### 6.12 Interest on Working Capital

#### Petitioner's Submission

The Petitioner has stated that as per Clause 25 of JERC Regulations 2014 the working capital for the retail supply activity licensee shall consist of

- a. Receivable of two months of billing
- b. Less power purchase cost of one month
- c. Less consumer security deposit but excluding Bank Guarantee/Fixed Deposit Receipt.
- d. Inventory for two months based on Annual Revenue Requirement for previous year

The rate of interest on working capital shall be equal to the base rate for the State Bank of India on the 1<sup>st</sup> April of the relevant financial year.

The CED further submitted that it has not kept records of its inventory but it has initiated the process of making fixed asset register and the account preparation as per accounting principle. It expects to have inventory available at the time of filing of next tariff petition. Provisionally, CED has considered one month operation and maintenance expenses as part of working capital. SBI advance rate as on April 1<sup>st</sup>, 2015 is considered for computation of interest on working capital. The Commission is requested to approve the interest on working capital as given in the Table below:

**Table 6.34: Projected Interest on working Capital for FY 2015-16- Petitioner's Submission**

(Rs. Cr)		
S. No	Particulars	FY 2015-16
1	Two Months Receivables	146.05
2	Power Purchase Cost of 1 month	60.00
3	Total Consumer Security Deposit	38.55
4	O&M Expenses for 1 months	6.22
5	Total Working Capital Requirement (1-2-3+4)	53.71
6	Interest Rate	14.75%
7	Interest on Working Capital	7.92

### **Commission's Analysis**

As per Regulation 29 of JERC tariff regulations, 2009

#### **29. Interest on working capital**

Working capital for retail supply activity of the licensee shall consist of:

Power Purchase Cost

Employee Cost

Administration & General expenses

Repair & Maintenance expenses

Sum of two months requirement for meeting fuel cost

The rate of interest on working capital shall be equal to the short term PLR for the State Bank of India on the 1<sup>st</sup> April of the relevant financial year. The interest on working capital shall be payable on normative basis notwithstanding that the

licensee has not taken working capital loan from any outside agency or has exceeded the working capital loan worked out on the normative figures.

The Working capital has been reduced by the amount of Consumer Security Deposit available with the Petitioner considering its usage for meeting part of working capital requirements. The SBI Advance (PLR) Rate as on 1<sup>st</sup> April is considered by the Commission for computation of interest on working capital. The interest on working capital for FY 2015-16 is computed as detailed in the Table below:

**Table 6.35: Interest on working Capital for FY 2015-16 - Commission's Approval**  
(Rs. Crore)

<b>S. No</b>	<b>Particulars</b>	<b>FY 2015-16</b>
1	Power Purchase Cost for One month	53.93
2	Employee Cost for one month	5.04
3	A&G Expenses for one month	0.23
4	R&M Expenses for one month	0.94
5	Total Working Capital	60.14
6	Less: Average Security Deposit	37.05
7	Net Working Capital Requirement	23.09
8	SBI-PLR	14.75%
9	Interest on Working Capital	3.41

**The Commission approves interest on working capital at Rs.3.41 Crore for FY 2015-16.**

### **6.13 Return on Capital Base**

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

The Petitioner has stated that Provision of Regulation 27 of JERC Regulations 2014 provides for entitlement for Returns on 30% of Capital Base or actual equity. CED has created all its assets from internal accruals but for the purpose of claiming the return on capital employed it has considered normative equity as 30% of its capital base for the year. The Commission had not approved the total fixed assets of the CED in absence of the fixed asset register during previous tariff orders and had directed the CED to prepare the FAR on urgent basis. CED has initiated the process of creation of fixed asset register and provisionally computed the Return on capital employed as per assets in its accounts. Rate of return on equity is considered 16%

post tax as per proviso 27 of the JERC Regulations 2014. CED has requested the Commission to take a lenient view on this and approve the RoE as given below as approval of entire amount in future on availability of FAR would put undue burden on consumers of UT.

**Table 6.36: Projected Return on Equity for FY 2015-16- Petitioner's Submission**

		(Rs. Cr)
Particulars	FY 2015-16	
Opening Normative Equity		127.62
Addition During the year		2.99
Closing Normative Equity		130.61
Average Normative Equity		129.12
Rate of Return		16.00%
Return on Equity		20.66

**Commission's Analysis**

The Commission in accordance with the provision 23(2) and 24 of Tariff Regulations, 2009, has considered the Return on Capital Base.

The basic requirement for consideration of return on capital base is the audited Annual Accounts and fixed assets and depreciation registers. The CED has not prepared the statement of accounts viz., profit and loss account, balance sheet etc. The Petitioner has not been maintaining the adequate information and hence the Commission has considered Rs. 65.64 Crore (Table 5.27 of this Order) as the gross block at the beginning of FY 2015-16 being the closing balance approved in APR for FY 2014-15 and accumulated depreciation of Rs. 8.98 (5.25+3.73) Crore (Tables 5.35&6.29). The Commission has accordingly considered Rs. 1.70 Crore towards Return on Capital Base for FY 2015-16 as detailed in the Table below:

**Table 6.37: Return on Capital Base for FY 2015-16- Commission's Approval**

		(Rs. Cr.)
Particulars	Approved by the Commission for FY 2015-16	
Gross block at beginning of the Year		65.64
Less: accumulated depreciation		8.98
Net block at beginning of the year/ Closing equity		56.66

Particulars	Approved by the Commission for FY 2015-16
Less accumulated consumer contribution	0.00
Net fixed assets at beginning of the year	56.66
Reasonable Return at 3% of NFA	1.70

**The Commission approves return on capital base at Rs. 1.70 Crore for FY 2015-16.**

#### **6.14 Provision for Bad and Doubtful Debt**

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

The Petitioner has submitted that in accordance with Clause 32 of JERC Regulations, 2014 the bad and doubtful debts shall be limited to 1% of the receivable in the true up subject to the condition that amount of bad and doubtful debt is actually written-off in the licensee's books of the accounts. However the amount is to be claimed at the time of true-up subject to availability of accounts the CED has proposed to create a provision for bad and doubtful debts on 1% of the estimated receivables for FY 2015-16 and requested to adjust the provision at time of final true up of the FY 2015-16. The CED has estimated the provision of bad debt as given in the table below:

**Table 6.38: Projected Provision for Bad and Doubtful Debt for FY 2015-16 - Petitioner's Submission**

Sr. No	Particulars	(Rs. Cr) FY 2015-16
1	Net Revenue Requirement	876.27
2	Provision of Bad and Doubtful Debt 1%	8.76

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

The Regulation 28 of JERC Tariff Regulation, 2009 specify "The Commission may, after the licensee gets the receivables audited, allow a provision for bad debts up to 1% of receivables in the revenue requirement of the licensee".

The Commission opines that as per the Regulation bad debts shall be allowed based on audited accounts of the Petitioner. Since, the figures for FY 2015-16 are projections and are not based on the audited accounts, no amount is considered

towards bad debts for FY 2015-16. However, the same shall be considered in True up based on audited accounts of the relevant year.

**Commission's Approval:** Commission does not approve any provision for bad debts for the FY 2015-16 in the absence of audited accounts, however subject to APR and True-up.

#### **6.15 Non- tariff Income**

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

The Petitioner has projected the Non-tariff income for FY 2015-16 as given in the table below, and requested the Commission to approve the same.

**Table 6.39: Projected Non-Tariff Income for FY 2015-16- Petitioner's Submission**

<b>(Rs. Crore)</b>	
<b>Particulars</b>	<b>FY 2015-16</b>
Non-Tariff Income	17.82

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

The Commission has approved the non-tariff income as projected by the Petitioner at the same level for FY 2015-16 as shown in the table below:

**Table 6.40: Non-Tariff Income for FY 2015-16- Commission's Approval**

<b>(Rs. Cr)</b>	
<b>Particulars</b>	<b>FY 2015-16</b>
Non-Tariff Income	17.82

#### **6.16 Revenue from Sale of Surplus Power**

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

The Petitioner has submitted that the revenue for under drawal of UI power and had also sold power through exchange in previous years. Further it is stated that retail sale of the CED is increasing and power availability is stagnant, CED expects to face deficit of power in coming years and doesn't expect to sale any short term power. Therefore, CED has not considered any surplus power or revenue from surplus power for FY 2015-16.

##### **Commission Analysis:**

Commission has not considered any credit in the ARR towards sale of surplus power in view of the Petitioner's submission.

**6.17 Revenue at Existing Tariff**

Petitioner has stated that the revenue on estimated sales and prevailing tariff for FY 2015-16 is estimated in the table below:

**Table 6.41: Projected Revenue on Current Tariff for FY 2015-16- Petitioner's Submission**

**(Rs. Cr)**

Particulars	FY 2015-16
Billed Revenue at Current Tariff	734.04

**Commission's Analysis**

The Commission approves the revenue as projected by the Petitioner on estimated sales on the tariff for the FY 2015-16 as shown in the table below.

**Table 6.41: Revenue on Tariff for FY 2015-16- Commission's Approval**

**(Rs. Cr)**

Particulars	FY 2015-16
Revenue at Current Tariff	744.63*

\*The details are available in table 8.3

**6.18 Projected Aggregate Revenue Requirement for FY 2015-16**

**Petitioner's Submission**

The Petitioner has stated that the Aggregate Revenue Requirement and deficit for FY 2015-16 as given in the table below and requested to approve the same.

**Table 6.42: Projected Aggregate Revenue Requirement for FY 2015-16- Petitioner's Submission**

**(Rs. Cr)**

S. No	Particulars	FY 2015-16
1	Cost of power purchase for full year	719.99
2	Employee costs	60.45
3	Administration and general expenses	2.81
4	R&M expenses	11.35
5	Depreciation	22.72
6	Interest and finance charges	36.26
7	Interest on working capital	7.92



S. No	Particulars	FY 2015-16
8	Interest on Security Deposit	3.15
9	Return on Equity	20.66
10	Provision for Bad Debt	8.76
11	Total Revenue Requirement	894.09
12	Less: Non-Tariff Income	17.82
<b>13</b>	<b>Net Revenue Requirement</b>	<b>876.27</b>

Average Cost of Supply projected by the Petitioner for FY 2015-16 is given in the table below:

**Table 6.43: Average cost of Supply-Petitioner's submission**

S. No	Particulars	FY 2015-16
1	Net Revenue Requirement (Rs. Crore)	876.27
2	Total Energy Sales (MU)	1555.75
3	Average Cost of Supply (Rs/Unit)	5.63

### **Commission's Analysis**

The Commission, based on the items of expenditure discussed in the preceding sections, has approved the ARR for FY 2015-16 as given in the Table below.

**Table 6.44: Aggregate Revenue Requirement for FY 2015-16- Commission's Approval**

(Rs. Cr)

S. No	Particulars	FY 2015-16	
		Submitted by the CED	Approved by the Commission
1	Cost of power purchase	719.99	647.12
2	Employee costs	60.45	60.45
3	Administration and general expenses	2.81	2.73
4	R&M expenses	11.35	11.32
5	Depreciation	22.72	3.73
6	Interest and finance charges	36.26	6.73
7	Interest on working capital	7.92	3.41
8	Interest on Consumer's Security Deposit	3.15	3.15
9	Return on Capital Base	20.66	1.70
10	Provision for Bad Debt	8.76	0.00
11	Total Revenue Requirement	894.09	740.34
12	Less: Non-Tariff Income	17.82	17.82
<b>13</b>	<b>Net Revenue Requirement</b>	<b>876.27</b>	<b>722.52</b>

### Average Cost of Supply

#### Commission's Approval

The Commission has approved the average cost of supply for FY 2015-16.

**Table 6.45: Average cost of supply-Commission's Approval**

S. No	Particulars	FY 2015-16	
		Submitted by the CED	Approved by the Commission
1	Net Revenue Requirement (Rs)	876.27	722.52
2	Total Energy Sales (MUs)	1555.75	1555.75
3	Average Cost of Supply (Rs/Unit)	5.63	4.64

### 6.19 Revenue Gap for FY 2015-16

#### Petitioner's Submission

The CED has submitted that in the absence of accounts prepared on commercial accounting principle, the Commission had not approved the Depreciation, Interest on Loan and Return on Equity on actual assets for previous years but approved the same expenses on much lower asset base. Moreover, the Commission found it inappropriate to consider the true up for FY 2011-12, FY 2012-13 and FY 2013-14 and decided to consider the same upon submission of audited accounts prepared on commercial principles.

It is further submitted that the CED presently prepares Performa accounts which are duly audited and certified by the CAG. Moreover, the preparation of account on commercial accounting principles as directed by the Commission is initiated and tendering process is in advance stage. Accordingly the Petitioner has submitted that the estimated revenue at Existing Tariff for FY 2015-16 and gap is provided in the table below and requested to approve the same.

**Table 6.46: Revenue Gap at existing Tariff - Petitioner's Submission**

(Rs. Crore)

S. No	Particulars	FY 2015-16
1	Net Revenue Requirement	876.27
2	Revenue from retail sales at Existing Tariff	734.04
3	Revenue Gap/(Surplus) for the Year	142.23
4	Gap /( Surplus) for the previous year	44.13
5	Net Gap/ (Surplus)	186.36

### Commission's Analysis

The Commission has approved the expenditure covered in the preceding sections and the same has been summarized below. The estimated revenue deficit at existing tariff and the gap as assessed by the Commission for FY 2015-16 is as summarized below:

**Table 6.47: Revenue Gap/(Surplus) at Existing Tariff- Commission's Assessment**

		(Rs. Crore)
S. No	Particulars	FY 2015-16
1	Net Revenue Requirement	722.52
2	Revenue from retail sales at Existing Tariff	734.04
3	Revenue Gap /(Surplus) for the Year	(11.52)
4	Gap/(Surplus) for the previous year	(36.17)
5	Net Gap/ (Surplus)	(47.69)

As the Commission has not considered any true-up for FY 2011-12, FY 2012-13 and FY 2013-14 as submitted by the Petitioner owing to reasons detailed earlier, the Commission has not considered any consequential revenue gap on this account.

As per Provision 4 of Regulation 8 for 'Review and Truing Up' of JERC Tariff Regulations, 2009, *"While approving such expenses/revenues to be adjusted in the future years as arising out of the Review and / or Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues. Carrying costs shall be limited to the interest rate approved for working capital borrowings."*

The Commission is of the view that the Petitioner till now has not submitted the audited accounts based on commercial accounting principles for regulated business of electricity as per the regulatory requirement. Further, they have not prepared Fixed Asset & Depreciation Register. Therefore, the Commission is of the view that the expenditure as claimed under the various heads (RoE, Depreciation, Interest & Finance Charges and GFA) is on assumption basis.

The Commission has already stated in Chapter 4 that it has been

repeatedly directing the Petitioner to prepare accounts on commercial principles since issuance of first Tariff Order on July 16<sup>th</sup>, 2011. While, the Commission acknowledges that the efforts have now been initiated by the Petitioner for preparation of accounts on commercial principles, considerable time has been lost due to delay in start of actions in this context by the Petitioner.

However, in case the Petitioner had adhered to timelines as per the directions issued in various orders, the audited accounts (prepared on commercial principles) would have been available by now for the True up. The Commission is of view that the delay, which is on account of Petitioner, cannot be burdened on the consumers and therefore no carrying cost will allowed for gap for FY 2011-12, FY 2012-13 and FY 2013-14 (if any, after true-up is undertaken once the audited accounts on commercial principles are available).

**Treatment of Revenue Surplus during FY 2015-16**

Further, as can be seen from the table mentioned above, there is a cumulative revenue surplus of Rs. 47.69 Crore till FY 2015-16 as estimated by the Commission against the cumulative revised gap of Rs. 186.36 Crore furnished by the Petitioner in its petition. The major reason for the surplus for as compared to the projections of the Petitioner is the T&D losses trajectory approved and disallowance of extra losses, non-consideration of actual expenditure including Interest Charges, Depreciation and Return on Equity, in the absence of audited accounts and Fixed Asset Register. It is expected that in future ARRs and True-ups, when the Petitioner submits the actual figures of revenue for FY 2011-12, FY 2012-12, FY 2013-14 and FY 2014-15 along with audited accounts, depreciation and fixed asset registers, the surplus assessed (as of now) in the revenue requirement on account of above shall be mitigated.

The Commission would also like to emphasize that there is likelihood that Tariff revision orders for most of the Central Generating Stations will be issued within FY 2015-16 itself. While any increase in the tariff can be recovered through FPPCA, the Commission directs the Petitioner to adjust the recoveries on account

of positive FPPCA in the approved surplus and not to charge the consumers till such time the approved surplus is exhausted. The Commission also directs the Petitioner to pass on the benefits of negative FPPCA directly to the consumers.

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## 7. DIRECTIVES

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### 7.1 Basis of Directives of the Commission

The Commission has in its previous order issued directives to CED within the parameters of Section 61 of the Electricity Act, 2003 which stipulates that the Commission shall be guided by the factors which would encourage competition, efficiency, economical usage of resources, grid performances and optimum investment in specifying the terms and conditions for determination of Tariffs.

While examining the information and data contained including the compliance note submitted by the Petitioner in the proposed ARR and Tariff Petition for the MYT Period FY 2015-16 to FY 2017-18, it has been observed that the directives issued in the Tariff Order for FY 2014-15 and before, also mentioned below have not been fully complied with by the distribution licensee.

### 7.2 Commission's Observations

#### **Compliance of Directives issued by the Commission in the Tariff Order for FY 2011-12**

##### **1. Directive -1: Annual Statement of Accounts**

Electricity Department Chandigarh has not prepared the account for the Electricity Department separately. As Electricity Business comes under the preview of Electricity Act, 2003, the accounts pertaining to Electricity Business are required to be prepared separately and got audited.

Accounts of the licensee need to be prepared on commercial account principles for regulated business of electricity as per regulatory requirement by 30 Sep, 2012.

#### **Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

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

The CED being a UT and a Govt. Department has been carrying out the transmission and distribution business as an integrated utility till date. As such the accounts pertain to Electricity Business (Integrated Utility) are prepared regularly on year-to-year basis and submitted to AG UT Chandigarh for audit. The audit certificate for the accounts FY 2007-08, 2008-09 and 2009-10 have been received while the audit certificate of FY 2010-11 and FY 2011-12 are awaited. However, DNIT is being prepared for appointment of consultant/CA with the help of Information Technology department, UT Chandigarh for preparation of Accounts of the department on commercial account principles.

#### **Commission's Comments**

Accounts of the licensee need to be prepared on commercial account principles for regulated business of electricity as per regulatory requirement by 30<sup>th</sup> September, each year. The Commission in its previous order has also directed the Petitioner to comply with the directives and file the true up accordingly. The Commission directs the Petitioner to file the true up for FY 2011-12 by October 31, 2013, failing which the Commission would be constrained to take action according to the JERC Regulations and the Electricity Act, 2003.

#### **Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

##### **Petitioner's submission**

CED submits that Tender (OP-4/19/2013-14) for appointment of consultant for (i) preparation of Annual Statement of Accounts on commercial accounting principles and (ii) Asset & Depreciation Register was floated on 23.8.2013 with opening date of 17.3.2013. However, due to some observations raised by 3-4 firms, the date of opening of tender is further extended upto 11.10.2013. As no any EMD was received from any firm till 11.10.2013 and due to system constraints, the tender was made cancelled.

The DNIT said was got amended by including comments/ suggestions furnished by various firms including M/S Deloitte Touche Tohmatsu India Pvt Ltd , M/S

Feedback Infra and M/S S.K. Bhasin & Associates. The amended DNIT was deliberated by the Standing Committee constituted by the competent authority of Chandigarh Administration on 14.10.2013 & 31.10.2013 and later on approved by the Chief Engineer, UT Chandigarh vide his office memo no. 11891 dated 31.12.2013. The said DNIT has been refloated on 17.1.2014 at e-tender portal of Chandigarh Administration.

In view of above cited constraints, CED kindly request Hon'ble JERC to extend the submission date further in respect of submission of Annual statement of account on commercial accounting principles as CED is sincerely putting its best to comply with the directive of Hon'ble Commission.

#### **Commission's Comments**

While the Commission acknowledges the efforts have been initiated by the Petitioner for preparation of accounts on commercial principles, there have been serious delays in the compliance of this directive on the account of Petitioner. The Commission has already clarified in detail in previous orders that no carrying cost of revenue gaps (if any, at the time of final true-up) will be entertained.

The Commission now directs the Petitioner to file the true up for FY 2011-12 and FY 2012-13 by 31 October 2014 (to be prepared on the basis of the accounts prepared on the Commercial Accounting principles), failing which the Commission would be constraint to take action according to the JERC Regulations and the Electricity Act, 2003 which may also include the non-consideration of True-Up of FY 2011-12 and FY 2012-13 in all the future orders.

#### **Compliance/Action taken mentioned in the present Petition for FY 2014-15**

The Commission vide its tariff order dated 11.4.2014 directed CED to file true up for FY 2011-12, 2013-13 on the basis of accounts prepared on commercial accounting principles, by 31.10.2014.

The commission vide its order dated 15.12.2014 in the petition no. 149/2014 filed by CED, has accorded extension in time for the compliance of this directive and



submit the Assets and Depreciation register along with accounts on commercial principles basis by Sept 30<sup>th</sup>,2015. In view of above, CED has again floated the tender for appointment of consultant for preparation of accounts on commercial accounting principles and preparation of fixed asset register on 31.12.2014 and technical bid has been already been opened and the tendering process is under progress.

**Commission Comments for FY 2015-16**

The matter should be pursued and directive should be complied with by September 30<sup>th</sup> 2015 and a report submitted without any further excuses.

**Directive-2: Preparation of Asset and Depreciation Register**

The ED Chandigarh has stated that the complete data of fixed assets is not available. Unless the function wise, asset wise data is up-dated, correct asset value and depreciation thereon cannot be ascertained. The Electricity department is directed to arrange for preparation of assets and depreciation registers etc.

Petitioner is directed to submit quarterly progress report and the completion date.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

The preparation of Asset and Depreciation register is covered under R-APDRP Part-A project. While doing GIS mapping, these registers will be prepared. The DNIT for the third party audit for evaluation of asset (Transmission and distribution business) is being prepared. The final study report is expected to be finalized by Dec 2013.

**Commission's Comments**

The Commission has noted the action taken and directs to file a monthly progress report in this regard.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission**

CED submits that Tender (OP-4/19/2013-14) for appointment of consultant for (i) preparation of Annual Statement of Accounts on commercial accounting principles and (ii) Asset & Depreciation Register was floated on 23.8.2013 with opening date of 17.3.2013. However, due to some observations raised by 3-4 firms, the date of opening of tender is further extended upto 11.10.2013. As no any EMD was received from any firm till 11.10.2013 and due to system constraints, the tender was made cancelled.

The DNIT said was got amended by including comments/ suggestions furnished by various firms including M/S Deloitte Touche Tohmatsu India Pvt Ltd , M/S Feedback Infra and M/S S.K. Bhasin & Associates. The amended DNIT was deliberated by the Standing Committee constituted by the competent authority of Chandigarh Administration on 14.10.2013 & 31.10.2013 and later on approved by the Chief Engineer, UT Chandigarh vide his office memo no. 11891 dated 31.12.2013. The said DNIT has been refloated on 17.1.2014 at e-tender portal of Chandigarh Administration.

In view of above cited constraints, CED kindly request Hon'ble JERC to extend the submission date further in respect of Annual statement of account on commercial accounting principles as CED is sincerely putting its best to comply with the directive of Hon'ble Commission.

#### **Commission's Comments**

While the Commission acknowledges that efforts have been initiated by the Petitioner for preparation of fixed assets register, there have been serious delays in the compliance of this direction on the account of Petitioner. The Commission is of the view that the preparation of fixed assets registers will take considerable time from award of work to any particular agency. As the work is yet to be awarded to any particular agency as per the latest submissions of the Petitioner, the Commission has serious doubts about the early availability of verified fixed assets register. The Commission now directs the Petitioner prepare

and submit the Fixed Assets Register by 31 October 2014, failing which the Commission would be constrained to take action according to the JERC Regulations and the Electricity Act, 2003 which may also include the non-consideration of asset addition of period when the direction was first imparted and when the Fixed Asset Registers are actually made available in all the future orders.

**Compliance/Action taken mentioned in the present Petition**

The Commission vide its tariff order dated 11.4.2014 directed CED to file true up for FY 2011-12, 2013- 14 on the basis of accounts prepared on commercial accounting principles, by 31.10.2014. The commission vide its order dated 15.12.2014 in the petition no. 149/2014 filed by CED, has accorded extension in time for the compliance of this directive and submit the Assets and Depreciation register along with accounts on commercial principles basis by 30.9.2015. In view of above, CED has again floated the tender for appointment of consultant for preparation of accounts on commercial accounting principles and preparation of fixed asset register on 31.12.2014 and technical bid has been already been opened and the tendering process is under progress.

**Commission Comments- FY 2015-16**

The matter should be pursued and the directive should be complied with by September 30<sup>th</sup> 2015 and a report submitted without any further excuses.

**Directive-3: Management Information System**

The ED Chandigarh has not maintained proper data in respect of sales, revenue and revenue expenses as also the category wise / slab wise number of consumers, connected load / demand etc. for proper analysis of the past data based on actual and estimate of proper projections for consideration in the ARR and Tariff Petition.

The ED Chandigarh is directed to take steps to build credible & accurate and verifiable data base and management information system (MIS) to meet the

requirements for filing ARR & Tariff Petition as per regulatory requirement of the Commission & CERC and also to suit the Multi Year Tariff principles. The ED Chandigarh should get a study conducted on computerized database, and shall give a proposal as to how the department proposes to achieve this & submit an action plan with target dates.

Petitioner is directed to submit quarterly progress report and the completion date.

#### **Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

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

In this regard, it is submitted that M/S NIELIT (formerly known as DOEACC) has been entrusted the work of computerized billing and accordingly the Management Information Reports are being generated on regular basis as per requirement. These reports are being considered for filing the ARR and Tariff Petition. However, R-APRDP project has already been initiated for a credible & accurate and verifiable database and management information system (MIS).

##### **Commission's Comments**

Action taken is noted. Petitioner is directed to submit quarterly progress report and the completion date.

#### **Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

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

CED submits that M/S NIELIT has been entrusted the work of computerized billing and accordingly MIS reports are being generated on regular basis regarding units billed, no. of consumers, sanctioned load, defaulting amount, exception list and other ARR related reports.

However, the implementation of Part-A of R-APDRP is under process and recently a meeting of Distribution Reform Committee (DRC) in the chairmanship of Advisor to Administrator, UT Chandigarh was held on 20.9.2013 in which it was principally decided that the work of allotment of M/S SPANCO (ITIA of PSPCL,

Punjab) would be put up before the Standing Financial Committee, Chandigarh Administration (Upper) for its financial approval.

However, the DPR of SCADA and Part-B of R-APDRP have already been prepared by the respective consultants viz M/S Reliance Infrastructure and M/S Feedback Infra. The same would be forwarded to M/S PFC after approval of the competent authority of the Chandigarh Administration.

**Commission's Comments**

Action taken is noted.

**Compliance/Action taken**

M/s NIELIT has been entrusted the work of computerized billing and accordingly MIS reports are being generated on regular basis regarding units billed, no. of consumers, sanctioned load, defaulting amount, exception list and other ARR related reports.

However for further improvement, CED has submitted the proposal of M/S NIELIT to higher officer vide memo no. 1721 dated 22.7.2014 and another reminder dated Feb 2<sup>nd</sup>, 2015 for approval so that implementation of improved MIS using browser based development tools and RDBMS tools.

Further, Electricity Department has planned the process of computerization under the R-APDRP Program. However, R-APDRP project has not been implemented due to non-performance of ITIA (IT implementing Agency) M/S SPANCO by Punjab. Matter has been taken up with Haryana Utility for doing the work by their ITIA i.e. M/S HCL. Response from DHBVN Haryana has been received recently and referred to PFC/ MoP for approval.

**Commission's Comments- FY 2015-16**

Action taken is noted. The progress may be reported quarterly.

The Commission also directs that if the funds from PFC are delayed or denied, an alternate action plan be initiated not later than June 2015. Such an action plan with quarterly milestones and the completion date for the above work has to be submitted to the Commission by Sept 30<sup>th</sup>, 2015.

**Directive-4: Metering of consumer installations/ replacement of Non-Functional or defective Meters**

Under Section 55 (1) of Electricity Act 2003, no licensee shall supply electricity after expiry of 2 years from the appointed date except through installation of correct meter in accordance with the regulation to be made in this behalf by the authority. Accordingly, metering is required to be done in line with CEA (installation and operation of meters) Regulations 2006 to all consumers. Procurement process be expedited and action plan to install these meters be given by 30.09.12.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

In this regard, it is submitted that as per SOP Report submitted to the Hon'ble JERC for December 2012, 1932 number of meters were defective and 96 number of meters were burnt which totally contributes to about 1% of the total installed meter and it is within the prescribed tolerance limit. However, CED has already arranged 5,550 number of single phase meters and 5,550 number of three phase meters. The case for procurement of 35000 numbers of single phase meters and 8000 nos. three phase meters are in the advance stage of sample testing after clearing the technical and commercial bids.

**Commission's Comments**

*Action taken is noted. Procurement process be expedited and complete the work of installation of such meters by 30.09.13, through owned staff/outsourced staff/EPC contractor, without fail.*

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission**

In order to replace the nonfunctional / defective meters, CED has placed order on DGS&D for Single phase meters (Qty 15000 Nos) and almost same has been received in Store and the due date of delivery is around end of January, 2014. Besides this matter has also been taken up for allocation of 15000 single phase meters with UHBVN/DHBVN. This office has placed order on DGS&D for three phase meters (Qty 3500 Nos) and same will be received in Store soon.

The current non-functional/ defective meters as identified shall be replaced within this financial year.

However, it is submitted that the replacement of defective meters is a continuous process.

However, as per this office memo no. 5982 dated 9.12.2013 to Hon'ble commission regarding pending complaints for the month of Oct 2013, 1900 nos. of meters are defective/ burnt which shall be replaced in regular exercise. However, such no. of defective/ burnt meters is approximately 1% which is much lesser than the standard 3%.

**Commission's Comments**

*Action taken is noted. The Commission directs the Petitioner to ensure replacement of such meters on a continuous basis and report to the Commission the quarterly status.*

**Compliance/Action taken mentioned in the present Petition**

In order to replace the non-functional/ defective meters, CED is continuously putting its best efforts to purchase new meters and replacing defective and electro-mechanical meters. However, as per memo no. 311 dated Feb 12<sup>th</sup>, 2015 submitted to Hon'ble commission in the suo-moto petition no. 77/2012, 7252 nos. of meters are defective/ burnt as on 31.12.2014 which shall be replaced as soon as

possible. It is respectfully submitted that number of defective/burnt meters are approximately 3% which are within the SOP Regulation as notified by JERC. The Hon`ble JERC vide its order dated 12.11.2014 has mentioned that status of CED on consumer`s metering is much better amongst other licensees.

**Details in Consumer numbers w.r.t .Electricity Meters on 31 Dec 2014 (for a total Consumers base of 207260) submitted by the Petitioner vide memo no. SEE/OP/C1-2015/185/311 dated 12 Feb 2015 under suo-moto petition 77/2012 on Metering is as under.**

**CED has informed that there is no Consumer getting unmetered electric supply from CED**

	Mechanical		Electronic		Total Meters to be replaced including Working Mechanical Meters
	Working	Non-working	Working	Non-working	
	<b>33134</b>	<b>1031</b>	<b>166874</b>	<b>6221</b>	
Action by date	2 <sup>nd</sup> Qr. 2015-16	1 <sup>st</sup> Qr. 2015-16	-	1 <sup>st</sup> Qr. 2015-16	

#### **Commission`s Comments- FY 2015-16**

Action taken is noted. The Petitioner is directed ensure replacement of such meter on a continuous basis and bring the pendency to the minimum and bring in 11KV consumer metering urgently. This may be executed through own staff/ outsourced staff/ EPC Contractor.

#### **Directive-5: Energy Audit**

The ED Chandigarh is directed to get an Energy Audit conducted through an accredited agency to assess actual technical and commercial losses. Based on the studies, ED Chandigarh shall propose reduction of losses in subsequent years.

The investment required to reduce the losses be included in the investment plan for augmentation of T&D system to be submitted to the Commission.

Effective technical and administrative measures shall be taken to reduce the



commercial losses. The action plan for energy audit and loss reduction measures shall be furnished to the Commission by 30 September, 2012.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

The aspect of Energy Audit is covered under Part- A of the R-APDRP project (IT Implementation). Earlier the case for allotment of work to M/S SPANCO has been initiated but due to poor/ unsatisfactory performance in the State of Bihar, Punjab and other states, the allotment has been put on hold as directed by Joint Secretary (Power) GOI in a review meeting held on 3.10.2012. However, PFC has advised the department to explore the other possibilities for IT implementation or explore feasibility for sharing DC/ DRC with the State of Haryana.

The aspect of investment plan for augmentation of T&D system is covered under the R-APDRP project for which the DPR for Part- B (System Strengthening and loss reduction program) has already been prepared by Part- B Consultant i.e M/S Feedback Infra and the DPR shall be submitted to PFC for its investment approval.

**Commission's Comments**

*Action taken is noted. Procurement process be expedited and to submit quarterly progress report and the completion date.*

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission**

Energy Audit of Chandigarh Electricity Department to assess actual technical and commercial losses shall be covered in Part-A (IT Implementation) of R-APDRP project and allotment of work of IT Implementation to the M/S SPANCO (ITIA of Punjab) is under process.

### **Commission's Comments**

*The Commission is of the view that it is apparent from the submissions of the Petitioner that considerable delay has occurred on the account of allotment of work to a particular agency. As per the regulation 15(4) of JERC Tariff regulations, 2009 wherein it is stated that the licensee shall conduct regular energy audit to substantiate its estimation of T&D losses. The licensee shall also furnish six monthly energy audit reports to the Commission.*

*Therefore, the Commission directs the Petitioner that, pending the award of work to specialized agencies and assessment of actual losses as covered under R-APDRP, the Petitioner shall prepare the interim energy audit report in house for FY 2011-12, FY 2012-13 and FY 2013-14 and submit for review of Commission by 30 September 2014.*

### **Compliance/Action taken FY 2013-14**

CED submitted the Energy Audit report to the Commission vide memo no. 3332 dated 22.9.2014. However, commission vide letter no. 756 dated 14.10.2014 directed CED to prepare Energy Audit as per directive stated in tariff order. Energy Audit of Chandigarh Electricity Department to assess actual technical and commercial losses has been covered in Part-A (IT implementation) of R-APDRP project. However, R-APDRP project has not been implemented due to Non-performance of ITIA (IT Implementing Agency) M/S SPANCO by Punjab. Since MoP has not allowed separate Data Centre (DC) and Data recovery Centre (DRC), it will not be possible for CED to take up this job independently in view of the huge cost involved besides software issues. Now MoP has directed to take the consent of Haryana to get the work done through Haryana ITIA. Response from DHBVN Haryana has been received recently and referred to PFC / MoP for approval. Hence, compliance of JERC direction dated 14.10.2014 can be made only after the implementation of R-APDRP project in UT Chandigarh.

**Commission's Comments FY 2015-16**

Action taken is noted. The Commission is of the view that it is apparent from the submissions of the Petitioner that considerable delay has occurred on the account of allotment of work to a particular agency. Further, after the Energy Audit process has been initiated, a six monthly energy audit report shall be submitted to the Commission, as per the regulation 15(4) of JERC Tariff regulations, 2009 wherein it is stated that the licensee shall conduct regular energy audit to substantiate its estimation of T&D losses.

In case the PFC funding for APDRP is delayed or denied, the Commission reemphasizes its directive to the Petitioner for initiating alternate action for the award of work to specialized agencies for such work. The Petitioner shall prepare the interim energy audit report in house and submit for review of Commission by September 30<sup>th</sup>, 2015. The Electricity meters on 66kV and 11kV be installed and information generated in this regard. This may be done with the help of NIC or NIELIT or any other organization who can support CED for Computer center or by starting the work from desktop computer stations for assessing Feeder wise / Transformer wise T&D Losses.

**Directives-6: Interest on Security Deposit**

U/S 47(4) of Electricity Act 2003, the distribution licenses shall pay interest on security deposit collected from the consumers, equivalent to the bank rate or more as may be specified by the commission.

The Petitioner is directed to pay interest on consumer security deposit at the applicable bank rate.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

CED has already prepared a detailed list of consumers and their security amount for FY 2011-12 and FY 12-13 and provided the same to the billing agency i.e. M/S NIELIT (formerly known as DOEACC) for further processing of the same to pay

interest on consumer security deposit at the applicable bank rate. However, voluminous and previous years' data pertaining to actual consumer security deposit amount since inception of the electricity department (Year 1966/67) are being prepared which may take some more time.

**Commission's Comments**

*The Commission in its previous order has directed the Petitioner to pay the interest on security deposit to the consumers in accordance with the Electricity Act 2003. The Commission feels that enough time has been given to the Petitioner for compliance of the same and reconciliation of the security deposit.*

*The Petitioner is directed to pay interest on consumer security deposit at the applicable bank rate by September 30, 2013 failing which appropriate action would be taken for non-compliance of the Commission's Directives.*

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission**

The interest on consumer security has been given in consumer bills and the compliance report of the same has already been provided to Hon'ble JERC vide memo no. 4997 dated 4.10.2013.

However, additional consumption security has also been demanded in the above cited bills in compliance to the clause 6.10(3) of JERC Electricity Supply Code Regulation 2010.

**Commission's Comments**

*Action taken is noted.*

**Compliance/Action taken**

The Commission vide its order dated 23.5.2014 in petition no. 132/2014 had directed CED to give interest on consumer security deposit w.e.f. commencement

of Electricity Act 2003 or the date of payment of security deposit by the consumer whichever is later. Further, the interest on consumer security deposit for FY 2013-14 was also to be given to consumer as per directive. In compliance to the above, interest of consumer security deposit has been given to consumers in FY 2014-15 as under:

Years 2003-11	Rs 5,00,88,891.00
FY 2011-12	Rs 5,23,754.00
FY 2012-13	Rs 8,49,389.00
FY 2013-14	Rs 3,20,37,158.00

Those consumers who were not given interest for FY 2011-12 and FY 2012-13 in FY 2013-14 due to non-availability of date of connection, have been given interest on consumer security deposit in FY 2014-15 to the tune of Rs. 5,23,754.00 and Rs. 8,49,389.00 respectively and thus making total interest given on security deposit for FY 2011-12 as Rs. 57,99,514 (Rs 52,75,760 + Rs. 5,23,754) and for FY 2012-13 as Rs. 1,03,88,157 (Rs. 95,38,768 + Rs. 8,49,389) respectively. However, some consumers whose date of connection is still not clear/ traceable, have not been given interest for the period 2003-11, for which efforts are still on and those consumers shall be given interest for 2003-11 very shortly.

The interest on consumer security deposit for FY 2014-15 shall be given in May/ June 2015 as per clause 6.10(8) of JERC Electricity Supply Code Regulation 2010. However, additional consumption security has also been demanded in the above cited bills in compliance to the clause 6.10(3) of JERC Electricity Supply Code Regulation 2010.

#### **Commission Comments FY 2015-16**

The resentment of the Consumers in this regard was noticed in the Public Hearing. The Commission in its previous order has directed the Petitioner to pay the interest on security deposit to the consumers in accordance with the Electricity Act 2003.

The Commission feels that enough time has been given to the Petitioner for compliance of the same and reconciliation of the security deposit. The Petitioner is directed to pay interest on consumer security deposit at the applicable bank rate by June 30<sup>th</sup>, 2015 as committed. The CED should also ensure to trace out all the consumers with missing connection dates by Sept, 2015, failing which appropriate action would be taken for non-compliance of the Commission's Directives. The Commission directs the Licensee to credit the interest to the Consumers and send the compliance report by July 15<sup>th</sup>, 2015.

**Directive-7: Demand Side Management and Energy Conservation FY 2012-13**

Demand Side Management and Energy Conservation are very important areas, which should be in focus in ED Chandigarh particularly in context of Peak load. ED Chandigarh is directed to conduct a detailed study on demand side management and energy conservation through an external accredited agency for efficient use of electricity by various means.

Petitioner is directed to inform the time bound action plan for installation of TOD meters.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

Tender was floated for purchase of meters having TOD facility. However, the tender was not matured due to one reason or the other and despite several time extensions. Therefore, the decision was taken to refloat the same. The refloating of the tender is under progress.

**Commission's Comments FY 2013-14**

*Action taken is noted. Petitioner is directed to inform the time bound action plan for installation of TOD meters.*

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

### **Petitioner's Submission**

1. DNIT for appointment of consultant for demand side management and energy conservation shall be prepared after receiving the approved regulation on DSM from Hon'ble commission. Hon'ble JERC has already invited suggestions/ comments on above cited draft regulation and CED has also submitted its comments to JERC vide memo no. 4047 dated 14.8.13.
2. CED has started the process of procurement of Trivector DLMS meters which have multiple function capability and ToD feature. However, the whole project covers under R-APDRP, which is under process. After the procurement, these meters shall be installed.

### **Commission's Comments FY 2014-15**

The Commission would like to reiterate its direction to conduct a detailed study on demand side management and energy conservation through an external accredited agency for efficient use of electricity by various means and submit the compliance report to the Commission by September 30<sup>th</sup> 2014.

### **Compliance/Action taken mentioned in the present Petition for FY 2015-16**

The whole project for demand side management and energy conservation covered under R-APDRP project has not been implemented due to Non-Performance of ITIA (IT Implementing Agency) M/S SPANCO by Punjab. Matter has been taken up with Haryana Utility for doing the work by their ITIA i.e. M/S HCL. Response for DHBVN Haryana has been received recently and referred to PFC/MoP for approval. As an additional initiative, CED has taken up the matter of DSM for improving energy efficient street lighting system in UT Chandigarh with TERI which is under progress.

DNIT for procurement of meters (30000 nos. for single phase, 250 nos. of DLMS LT CT meters etc) having ToD feature has been again sent to higher authorities of Chandigarh Administration for approval and shall be procured in due course of time.

**Commission Comments- FY 2015-16**

The Commission reiterates its direction to conduct a detailed study on demand side management and energy conservation through an external accredited agency for efficient use of electricity by various means. Puducherry successful model of DSM followed by other states may be examined and action taken may be intimated in the compliance report to the Commission by Sept 30<sup>th</sup> , 2015.

**Directive -8: Manpower Study**

The EDC is directed to conduct a detailed study on manpower requirement by an accredited agency while taking into account the future load growth in Chandigarh. The employee cost provision shall be based on the results of above study in the Tariff Petition for 2012-13.

Therefore, distribution licensee is directed to submit the reason for non-compliance within two weeks from the date of issuance of this order along with present status in this regard. Non-compliance of the directive is viewed seriously. Compliance be reported by 30-9-2012 and outcome of the study be incorporated in the ARR of FY 2013-14 to be submitted before 30.11.2012.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

CED has already issued letter of intent (LOI) to M/S Deloitte Touche Tohmatsu India Pvt Ltd, Gurgaon to conduct manpower study on 31.1.2013 and the study is under progress.

**Commission's Comments FY 2012-13**

*Compliance be reported by 30-9-2013 and outcome of the study be incorporated in the ARR of FY2014-15 to be submitted before 30.11.2013.*



**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission**

The Manpower Study has been conducted by the Consultant M/S Deloitte and has also recently been approved by the competent authority of Chandigarh Administration vide his office memo no. 8 dated 1.1.2014. The petition in this regard has already been submitted to Hon'ble JERC vide memo no. 75 dated 14.01.2014 for its acceptance and implementation, very shortly.

**Commission's Comments FY 2013-14**

*Action taken is noted. The Commission has admitted the petition as petition no. 129/2014 and will deal this report through separate order.*

**Compliance/Action taken mentioned in the present Petition**

The Manpower study submitted by the CED has been approved by the Commission vide its order dated 29.12.2014 in the petition no. 141/2014. The matter has been referred to Chandigarh Administration for sanction of posts by MoHA / MoP.

**Commission Comments- FY 2015-16**

After the public hearing on 18 March 2015 the Commission has already written to CED's higher management for immediate implementation of induction of manpower approved by the Commission. The CED is required to follow up and keep the Commission informed of any impediments coming in the way of its implementation.

Regarding utilizing Draftsman's cadre or any other cadre not effectively being utilized , CED is required to utilize their services by training them in Project Management of various Capital Investment Schemes, Project Estimation, Bill of Materials and training them on Primavera and such tools to effectively utilize their services for productive use.

### **7.3 Compliance of Directives issued by the Commission in the Tariff Order for FY 2012-13.**

#### **Directive 1: Segregation of T&D losses and loss reduction trajectory:**

The Petitioner is directed to furnish segregation of losses into transmission, distribution and commercial losses separately in their next petition along with a status report on energy accounting and T&D losses.

#### **Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

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

The aspect of Energy Audit is covered under Part- A of the R-APDRP project (IT Implementation). Earlier the case for allotment of work to M/S SPANCO has been initiated but due to poor/ unsatisfactory performance in the State of Bihar, Punjab and other states, the allotment has been put on hold as directed by Joint Secretary (Power) GOI in a review meeting held on 3.10.2012. However, PFC has advised the department to explore the other possibilities for IT implementation or explore feasibility for sharing DC/ DRC with the State of Haryana.

##### **Commission's Comments FY 2012-13**

*Action taken is noted. The Petitioner is directed to inform the time bound action plan for the same by 30.09.13*

#### **Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

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

The interstate losses of these interstate points of Nalagarh, Dhulkot etc. were not included in the approved target by Hon'ble commission while these losses are contributed in the T&D losses of CED . The interstate losses of Nalagarh - Kishangarh line is 2.97 % for the FY-2012-13 as intimated by PGCIL authorities. Moreover the T&D losses (un-audited) of CED for the FY-2012-13 are 19.21 %. If total average interstate T&D losses of CED in respect of Nalagarh- Kishangarh and Dhulkot- Chandigarh line are assumed to be 3%, the actual T&D losses of CED will become 16% (as per unaudited data) which is very near to the targets as

fixed by Hon'ble JERC for the FY-2012-13.

**Commission's Comments FY 2014-15**

The Commission directs the Petitioner that, pending the award of work to specialized agencies and assessment of actual voltage wise losses as covered under R-APDRP, the Petitioner shall prepare the interim voltage wise energy audit report in house for FY 2011-12, FY 2012-13 and FY 2013-14 and submit for review of Commission by 30 September 2014. As regard to the losses existing in the system the Commission has given its view in this order at appropriate places which may be taken note off.

**Compliance/Action taken mentioned in FY 2014-15**

This aspect has been covered in Part-A (IT Implementation) of R-APDRP project. However, R-APDRP project has not been implemented due to Non-Performance of ITIA (IT Implementing Agency) M/S SPANCO by Punjab. Since MoP has not allowed separate Data Center (DC) and Data recovery Center (DRC), it will not be possible for CED to take up this job independently in view of the huge cost involved & software issues. Now MoP has directed to take the consent of Haryana. Matter has been taken up with Haryana Utility for implementation of work by their ITIA i.e. M/S HCL. Response from DHBVN Haryana has been received recently and referred to PFC/MoP for approval.

**Commission Comments FY 2015-16**

Action taken is noted. The matter may be pursued. The Commission intends to see the results and accordingly the Petitioner is directed to inform the time bound action plan for the same by Sept 30<sup>th</sup>, 2015. This will help CED to have a better Business Plan and serve the stakeholders effectively.

**Directive 2: Load Forecasting study: FY 2012-13**

The Petitioner is directed to conduct a detailed load forecasting study for short term (2-5 years), medium term (7-10 years) and long term (15-25 years) in order to

understand the load requirements in their area at various periods and submits to Commission along with next tariff petition.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

The DNIT for the appointment of consultant for load forecasting in under finalization process and shall be submitted to competent authority for its approval very shortly.

**Commission's Comments FY 2013-14**

*Action taken is noted. Petitioner is directed to inform the time bound action plan for the same by 30.09.13*

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission**

The scope of work of previous DNIT for appointment of consultant for load forecasting has been amended in view of the draft JERC regulations of Multi Year Distribution Tariff (MYT) Regulation 2013 and Demand Side Management Regulation 2013 and accordingly, amended DNIT has been put up to competent authority for approval.

**Commission's Comments FY 2014-15**

Action taken is noted. The Petitioner is directed to inform the time bound action plan for the same by 30.09.2014

**Compliance/Action taken mentioned in the Petition of FY 2015-16**

Amended DNIT for appointment of consultant for load forecasting based on the provisions of Multi Year Distribution Tariff (MYT) Regulation and Demand Side Management Regulation 2013 has been floated on the e-tender portal of Chandigarh Administration and the work shall be allotted very soon.

**Commission's Comments FY 2015-16**

Action taken is noted. The matter may be persuaded and a report may be submitted by July 31<sup>st</sup>, 2015.

**Directive 3: Optimization of Power Purchase from short-term sources: FY 2012-13**

The Petitioner's power purchase cost is highest in all the jurisdictions of the Commission and calls for a drastic rationalization and optimization of Power purchase cost. For day-to-day management, Power purchase should not be resorted to 10% of power purchase cost approved in the table no. 5.7.6. Any purchase beyond the quantity, price and source approved, needs specific approval of the Commission. The Petitioner is directed to restrict high cost short-term power purchases, including UI to a prudent level subject to CERC regulation (Unscheduled Interchange and related matters) as amended from time to time.

The scheduling be done on day ahead (spot & contingency), term ahead (weekly), monthly and yearly, strictly on a merit order purchase of power from approved sources, which is not being done appropriately. In case of an emergency, approval be obtained on the same day from the Commission for spot purchase.

The short-term power purchase be rationalized especially under UI mechanism; the overdrawls from UI below 49.7 Hz will not be allowed. As last year (FY 2011-12), 18 MUs have been recorded as overdrawls below 49.5 Hz, purchased at 873 paise/KWh.

The Petitioner is directed to give details of power purchase under UI mechanism. The details include the overdrawl frequency, date, time, block, quantity, UI charges, additional UI charges. The summary of total Sale/Purchase from short term sources including Net gain/Net loss under purchase of UI and from other sources including power exchange, bilateral etc. The results of gain/loss of such sale/purchase from other sources be explicitly mentioned.

In order to optimize the cost of power purchase, if unavoidable, the rotational

power cuts could be undertaken by the utility, keeping equity among all consumers of the utility irrespective of their status.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

The above details have been incorporated in the petition filed by the Petitioner for FY 2013-14 and CED had imposed rotation power cuts in view of the system constraints to ensure grid security.

**Commission's Comments FY 2013-14**

Action taken is noted.

**Compliance/Action Taken mentioned in ARR and Tariff Petition for FY 2014-15**

**Petitioner's Submission**

No submission from the Petitioner.

**Commission's Comments FY 2014-15**

The Commission directs the Petitioner to continue compliance of this directive as a part of normal operations and submit the compliance report along with the FPPCA computations.

**Compliance/Action taken mentioned in the Petition FY2015-16**

It is submitted that the UT Chandigarh is having PPAs with NTPC, NHPCL, NPCIL BBMB etc, which provide power at comparatively higher cost considering fixed and variable charges both. Also, UT Chandigarh is having more than 50% of the power from hydro projects i.e. NPHC, SJVNL, THDCL, BBMB etc., which have the higher fixed cost for the initial years. Further, there has been an agreement with BBMB as special assistance for 10 LUs/day (around 41 MW) which is being billed at the global rates (i.e. rate of Badarpur Thermal Power Station) which ranges from 4.70 to Rs. 5.70 / unit in different months. The matter was taken up with BBMB vide letter dated 2.5.2014 to review the rates of the BBMB 10 LUs special assistance power to

UT Chandigarh but no rates revision could take place as communicated by BBMB vide memo no. 6044 dated 1.7.2014.

It may be seen that UT Chandigarh has been taking pro-active efforts to reduce the power purchase cost which includes surrendering of the comparatively higher cost power from NTPC (RLNG and LNG power) as these power cost around Rs. 8.00/ unit to Rs. 12.00/unit. It is further submitted that the UT Chandigarh being capital city of State of Haryana and Punjab has a large no. of Govt. offices/ Offices besides educational/health institutes. As a result, the peak load is noticed during the day time i.e. 1200 hrs. to 1600 hrs. and since UT procures a major portion of power from hydro projects, which mainly are peak load power projects, which generate maximum power during the peak hours of 1800 to 2200 hrs. and 0500 to 0800 hrs. As such, UT Chandigarh is generally short of power during day time. The banking arrangement has been carried out with PDD J&K wherein the UT Chandigarh gets the power from 1000 to 1800 hrs. during May to August @ 30 MW and return the same from 2200 to 0600 hrs. during November to February. The short term power purchase is being carried out from April to September which is peak summer season at different slots after accessing the base load gap and further the power is procured/sold on day ahead basis through power exchange (s) so as to meet up with the gap. It is pertinent to mention here that the short term tenders were called for summer season 2014-15 (April to September) and the rates of the short term power were highly competitive and must be lower than most of the power stations from where the long term power purchase agreements exist. The approx. rate/unit for the power purchase under short term tender were around Rs. 3.20/unit.

As desired by the Commission in the tariff order, the complete data regarding overdrawl frequency, data, time, block, quantity, UI Charges etc. for FY 2013-14 has been stored in CD (data being bulky in nature) which shall be submitted along with this MYT petition for kind consideration of Hon`ble JERC.

We humbly requests the commission to allow purchase of power for short term and power exchange under competitive rates which are lower than rates at which CED is procuring power from long term sources.

**Commission's Comments FY 2015-16**

Action taken is noted.

**Directive 4: Online Bill Payment: FY 2012-13**

Directive already dropped in FY 2013-14 Tariff Order.

**Directive 5: Renewable Purchase obligations: FY 2012-13**

The Petitioner is directed to stagger the purchase over the year to avoid bunching of purchase at high cost towards the end of the year to meet their quarterly & yearly RPO targets as specified by the Commission. In case, the Petitioner is buying Renewable Energy certificates to meet their RPO targets, Commission directs the Petitioner to avoid bulk purchase of RE certificates at high cost towards the end of the year. RE certificates should be procured in such a manner that average cost of RE certificates will be equal to the floor price of ensuing year.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

CED has followed the direction of Hon'ble commission to avoid bulk purchase of RE certificates at high cost towards the end of the year and the compliance of the RPOs has already been made communicated to commission vide memo no. 126 dated 10.1.2013, 6343 dated 17.12.2012 and 5085 dated 27.9.2012.

**Commission's Comments FY 2013-14**

Action taken is noted.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission**

No Submission has been made by the Petitioner.



**Commission's Comments FY 2014-15**

The Commission has noted that the Petitioner has fully complied with this directive and directs the Petitioner to ensure RPO compliance for future years also.

**Compliance/Action taken mentioned in the Petition-FY2015-16**

CED Chandigarh has been regularly submitting its RPO compliance report to JERC in suo-moto hearing petition no. 61/2012. The Commission in the order dated 30.07.2014 has observed that the CED has met RPO obligations for FY 2010-11 to 2013-14 and of 1<sup>st</sup> quarter of current FY 2014-15. In its latest order dated 12.11.2014, Commission has observed that CED has also met RPOs of 2<sup>nd</sup> quarter of current FY 2014-15 as per JERC (Procurement of Renewable Energy) Regulations. It is further submitted that CED has complied with 74% of RPO obligation till 31.12.2014 i.e. 3<sup>rd</sup> quarter of current FY 2014-15 as per JERC (Procurement of Renewable Energy) Regulations. The status in this regard has already been submitted to JERC vide memo no. 246 dated Feb.5<sup>th</sup>, 2015.

**Commission's Comments FY 2015-16**

Action taken is noted. The Commission notes that the Petitioner has fully complied with backlog of RPOs. Commission expects full compliance of the RPOs by March 31<sup>st</sup>, 2015. In view of the Solar Power being generated in Chandigarh Union Territory, this directive is dropped from Compliance Report of previous years and in view of a changed scenario, a fresh Directive is given under FY 2015-16 with modified directions.

**Directive 6: Rural Electrification: FY 2012-13**

Directive is already dropped in Tariff order for FY 2013-14.

**Directive 7: Change of Category: FY 2012-13**

Commission has observed that consumer category of 'Government recognized institutions' 'Government & public sports institutions/gymnasium halls etc.' and 'Religious Institutions exclusively used for worship by the general public' are either being charged under Non-Domestic Category in some of the states and

in some states, they are being charged other 'Bulk Supply Tariff'.

Therefore, the Petitioner is directed to conduct an analysis and the impact of such conversion into Bulk Supply Tariff or Non-Domestic Tariff and accordingly submit a proposal for their conversion into the applicable category in their future ARR & Tariff Petition. The number of consumers, connected load and actual consumption of such consumers be submitted with their future ARR & Tariff petition.

#### **Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

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

The consumer category of 'Government recognized institutions', 'Government & public sports institutions/gymnasium halls etc.' and 'Religious Institutions exclusively used for worship by the general public' are being considered under Domestic category by NDMC, New Delhi and JVVNL, Rajasthan in their approved tariff schedule by the respective regulatory commissions. Accordingly, CED has submitted similar tariff proposal in its tariff petition for FY 13-14.

##### **Commission's Comments FY 2013-14**

The Commission has specifically directed the Petitioner to submit the analysis and impact of the conversion into Bulk tariff or Non-domestic tariff which has not been submitted by the Petitioner.

However, the Commission considering the nonprofit nature of the following establishments has considered the same in the Domestic category.

- (a) Government recognized education institutions
- (b) Government and public sports institution
- (c) Religious Institutions
- (d) Dispensary/ Hospital/Public Library etc
- (e) Orphanage /Cheshire homes etc
- (f) Electric Crematorium

This has been reflected in the Tariff Schedule at the appropriate category.

**Compliance/Action Taken mentioned in ARR and Tariff Petition for FY 2014-15**

**Petitioner's Submission 2014-15**

No Submission from Petitioner.

**Commission's Comments FY 2014-15**

*The Commission directs the Petitioner to submit the analysis as directed for review of Commission latest by 30 September 2014.*

**Compliance/Action taken mentioned in Petition for FY 2015-16**

The CED Chandigarh vide its memo no. 164 dated Jan 1<sup>st</sup>, 2015 has already submitted the desired analysis as directed by the Commission vide its letter no. 686 dated Sept 24<sup>th</sup>, 2014 with reference to this office memo no. 3068 dated Sept 10<sup>th</sup>, 2014.

**Commission Comments FY 2015-16**

Action is taken is noted.

**Directive 8: Capital expenditure: FY 2012-13**

The Petitioner is directed to submit the detailed statement of capital expenditure incurred and capitalization for every quarter, within 15 days in the subsequent quarter.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

Capital Expenditure for the FY 2012-13 - Q1: Rs 115.54 Crore, Q2: Rs 819.59 Crore.

**Commission's Comments FY 2013-14**

Action taken is noted. A typographical error has been observed in the above action taken, it would be in Rs Lacs.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission FY 2014-15**

No submission from the Petitioner.

**Commission's Comments FY 2014-15**

The Commission has noted that it has not received any compliance for this directive. The Commission again directs the Petitioner to submit the detailed statement of capital expenditure incurred and capitalization for every quarter, within 15 days in subsequent quarter failing which the Commission will be bound to take failing which the Commission would be constraint to take action according to the JERC Regulations and the Electricity Act, 2003 which may include the non-consideration of capital expenditure of FY 2011-12 and FY 2012-13 for purpose of true-up in all the future orders.

**Compliance/Action taken mentioned :FY 2015-16**

The quarter wise detailed statement of capital expenditure incurred and capitalization from 2011 onwards duly audited by Accounts Officer, Electricity, OP Circle, NT Chandigarh is submitted on Mar 24<sup>th</sup>, 2015.

**Commission Comments- FY 2015-16**

Action taken is noted. The report when submitted next should have sub totals of each quarter. Petitioner to submit a detailed statement of capital expenditure incurred and capitalization for every quarter with summary of each quarter, as per the format prescribed by the Commission, within 15 days in the subsequent quarter, failing which the Commission will be bound to take action according to the JERC Regulations and the Electricity Act, 2003 including the non-consideration of capital expenditure of FY 2011-12 and FY 2012-13 for purpose of True-up in all the future Tariff Orders.

The following format on Investment Schemes including Investment on Safety of Manpower should be updated in the 1<sup>st</sup> week of July, Oct, Jan and April every year and sent to the Commission.

Investment Schemes- Monitoring Format ( to be followed on Quarterly Basis)												
Sl.	Scheme Name	Object of Scheme	Details of Area ( Existing Sales and Loss	Date of Approval	Expected date of Project Completion	Actual date of	Approved Scheme Cost	Actual Cost Incurred	Expected Outcome Units Saved / Revenue earned	Actual Outcome derived	Reasons for Variations	Whether DPR submitted to Commission Yes/ NO

**Directive 9: Enforcement Cell: FY 2012-13**

The Petitioner is directed to submit the status of the functioning of enforcement cell and quarterly progress report detailing number of cases, amount involved, sub-judice cases, and reduction in losses consequently.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner’s Submission**

The enforcement cell of CED is a centralized team on circle level. It comprises of five no. of officials including one no. A.E., two nos. JEs and two nos. Assistant line man. It is regularly functioning by way of checking of consumer premises, energy audit of independent feeders and meters installed on distribution transformers in Industrial Units. Total 487 cases were involved in the first two quarters.

**Commission’s Comments- FY 2013-14**

Action taken is noted.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner’s Submission FY 2014-15**

No submission from the Petitioner.

**Commission’s Comments FY 2014-15**

The Commission directs the Petitioner to submit quarterly status report of the

cases booked and action taken thereof.

**Compliance/Action taken mentioned FY 2015-16**

CED Chandigarh vide its memo no. 147 dated Jan 21<sup>st</sup>, 2015 has already submitted the final reconciled compliance report for FY 2013-14 and as directed by Commission vide its letter no. 896 dated Nov 19<sup>th</sup>, 2014. CED Chandigarh vide its memo no. 309 dated Feb 11<sup>th</sup>, 2015 has already submitted the compliance report of 1<sup>st</sup> Quarter and 2<sup>nd</sup> Quarter of FY 2014-15.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2015-16**

**Theft Cases are as under:**

Year	Category	Cases in Court	Special	Cases where Prosecution has taken place		
FY 2011-12	-	Nil		Nil		
FY 2012-13		Nil		Nil		
FY 2013-14	NRS	1		1		
	D/S	1		1		
FY 2014-15 upto Nov 2014	D/S	1		1		
<b>In addition to above the amount has been collected as under</b>						
Quarter	UUE 126	Theft	Meter	Amount charged Rs	Sub-judice	Amount involved Rs.
1 <sup>st</sup> FY 2013-14	0	5	39	78,79,861	1	13,45,931
2 <sup>nd</sup> FY 2013-14	4	5	70	1,02,29,205		
3 <sup>rd</sup> FY 2013-14	9	4	42	64,65,465		
4 <sup>th</sup> FY 2013-14	9	4	43	71,93,111		
1 <sup>st</sup> FY 2014-15	11	8	96	73,06,041		
2 <sup>nd</sup> FY 2014-15	10	4	69	1,44,74,601		

**Commission Comments- FY 2015-16**

Action taken is noted. The compliance report on 3<sup>rd</sup> quarter of FY 2014-15 may be submitted immediately. In view of above, the Directive is dropped. However, the Commission directs the Petitioner to submit henceforth, a quarterly status report of the cases booked and action taken.

**Directive 10: Voltage wise Categorization: FY 2012-13**

There should be two major categorization LT and HT based on voltage supply, within each voltage class, sub-categorization be according to use by some consumer category, to be proposed in next ARR i.e. voltage wise, consumer

wise, category wise be done.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2013-14**

**Petitioner's Submission**

In this regards, it is submitted that CED has submitted its inputs/ suggestions on *"Draft Consultation Paper- seek to provide a policy framework to address uniformity in consumer classification based on uses of electricity, voltage wise contract load/ demand limits and terms & condition of LT and HT supply to various consumer categories"* to Hon'ble JERC vide memo no. 261 dated 28.1.2013. The final action in this regard shall be taken as per JERC approval.

**Commission's Comments FY 2013-14**

Action taken is noted.

**Compliance/Action Taken mentioned in ARR and tariff petition for FY 2014-15**

**Petitioner's Submission**

No submission from the Petitioner.

**Commission's Comments FY 2014-15**

The Commission with a view to have a uniform consumer classification based on usage of electricity, voltage-wise contract load/demand limits and terms & conditions of LT and HT supply to various consumer categories had prepared a draft consultation paper and sought suggestions/comments from its stakeholders. Having received the suggestions/comments from the stakeholders, the Commission found that all seven-distribution licensees under its jurisdiction have different consumer- mix, socio-economic conditions, govt. policies, transmission and distribution network at different voltage levels. Therefore, the Commission opines that uniformity across all the utilities is not possible and it is wise and practical that the respective utility should propose voltage-wise and use-wise consumer classification and tariff proposal in the next ARR & tariff petition. Thus, the Commission directs the Petitioner to submit voltage-wise and use-wise consumer classification and tariff proposal in its next ARR.

**Compliance/Action taken mentioned FY 2014-15**

It is submitted that UT Chandigarh has different consumer mix, socio-economic conditions, government policies, distribution network at different voltage levels compared to other UTs under the jurisdiction of JERC. As per Chandigarh Administration Notification dated 30.09.2002 following voltage wise classification of consumers were approved:-

2) NRS/DS

Up to 100 KW:

- LT Supply: 230 V- 1 Phase
- 400 V- 3 Phase

Above 100 kW:

- HT Supply (11 Kv)

3) LS (above 100 kW): 11 kV Supply

However, as per clause 3.3 (5) of JERC Supply Code (First Amendment) Regulation 2013 and as per order of Hon`ble JERC dated 9.7.2014 on review petition filed by CED, Hon`ble JERC is requested to approve the following classification for UT Chandigarh:-

1) Domestic/ Non Domestic

Up to 99 kW:

- LT Supply: Upto 5 kW : 230 V- 1 Phase
- Above 100 kW: 11 kV Supply

100 kW or Above kW: 11 kV Supply

2) Large Supply

- above 100 kW: 11 kV Supply

3) Medium Supply

21-99 kW:

- LT Supply: 400 V- 3 Phase



4) Small Power

Up to 20 kW

- LT Supply: 230 V- 1 Phase
- 400 V- 3 Phase

5) Agriculture Power

Up to 20 kW:

- LT Supply: 230 V- 1 Phase
- 400 V- 3 Phase

6) Public Lighting:

- LT Supply: 230 V- 1 Phase
- 400 V- 3 Phase

7) Bulk Supply:

LT Supply

- 400 V-3 Phase

HT/EHT Supply:

- 100 kW or Above

**Commission's Comments FY 2014-15**

The Submission of the Petitioner is noted. The directive is dropped.

**7.4 New Directives in the Tariff order for FY 2013-14**

**Commission's Comments.**

No new directive issued in FY 2013-14 is pending for action.

**7.5 New Directives in the Tariff order for FY 2014-15**

**Sign Board Category**

The Commission hereby directs the licensee to provide sales/consumption data of the "Signboards" category, which has so far not been submitted before the Commission.

**Compliance/Action taken mentioned in the ARR Petition for the control period FY 2015-16 to FY 2017-18**

CED Chandigarh vide its memo no. 4069 dated Nov. 28<sup>th</sup>, 2014 has already submitted the compliance report informing “Nil” report under this category of Consumers to Hon`ble JERC.

**Commission’s Comments FY 2015-16**

Action taken is noted. The Directive is dropped.

**7.6 Pending list of Directives prior to FY 2015-16 Tariff Order**

The following directives of the Commission issued prior to FY 2015-16 are still not fully complied as detailed in above paragraphs in this chapter. The Petitioner is directed to take action as directed in respective paras urgently.

- i. Annual Statement of Accounts
- ii. Fixed Asset & Depreciation Register
- iii. Management Information System
- iv. Metering of consumer installations/replacement of Non-Functional or defective/ 11KV Meters
- v. Energy Audit
- vi. Interest on Security Deposit
- vii. Demand Side Management and Energy Conservation
- viii. Manpower Deployment
- ix. Segregation of T&D losses and loss reduction trajectory
- x. Load Forecasting study
- xi. Optimization of Power Purchase from short-term sources
- xii. Capital expenditure

## **7.7 Fresh Directives for FY 2015-16**

### **Directive 1: Safety of Manpower on Work**

The Commission directs the Petitioner to procure Telescopic Ladders, Safety harnesses, Helmets with headlights, hand gloves, auto lift platforms and other similar equipment for Safety of men at work. The Petitioner should also ensure that the Subcontractors also provide the safety equipment to their men.

The Manpower at work (Petitioner's Employees and Sub contractor's employees) needs to be skilled/ reskilled by the respective organizations once a year.

### **Directive 2: Initiate action for Corporatization of the Electricity Department.**

The Petitioner is directed to initiate action for Corporatizing of the Department on similar basis as has been done by other licensee under the jurisdiction of the Commission.

### **Directive 3: Repair & Maintenance of Equipment to give uninterrupted service**

The equipment required for preventive maintenance schedule should be drawn and action taken to ensure the equipment remains in good health to give uninterrupted service to the Consumers.

### **Directive 4: Strengthen Consumer Grievance Redressal forum (CGRF) and give wide publicity about it.**

The CGRF cell should be strengthened to make the cell work effectively. Wide publicity is required to be done to make the public aware of the existence of the cell including CGRF contact details at the back of electricity bills.

### **Directive 5: To set up a Cell making Consumer understand Electricity Regulatory Process and give wide publicity about it.**

Such a cell will address the issues of the Consumers making them understand on the Electricity Regulatory Process including issues on FPPCA, Solar Power etc.

**Directive 6: Energy Saving, Energy Efficiency and Demand Side Management**

**Petitioner's Submission- FY 2015-16**

TERI has been asked by CED to study the energy saving on Street Lights.

**Commission's Comments- FY 2015-16**

The Commission has noted about the submission of the Petitioner about Study on Street Lights by TERI. Demand Side Management (DSM) initiative has been approved by the Commission in one constituent territory of the Commission, which has been followed by other states. CED is directed to look into the same and submit a proposal for its approval by the Commission.

Switching off streetlights and park lights during day light hours needs no study for energy saving. These measures should be enforced urgently by deploying the light sensor switches, and until then manually.

The Commission reiterates its direction to conduct a detailed study on demand side management and energy conservation through an external accredited agency for efficient use of electricity by various means. Puducherry's successful model of DSM followed by other states may be examined. In Puducherry, Energy Efficiency Systems Ltd., (EESL) a Government of India set up under Bureau of Energy Efficiency executed the work on Energy Saving. The energy saving was achieved through distribution of LED Bulbs to various consumers and also by installation of these bulbs on Street lights, in Parks and Public places. The work was undertaken based on sharing the expenditure on energy saved through Energy Efficiency after a Petition was filed by the Puducherry Electricity Department and approved by the Commission.

The action taken in this regard and in regard to day light saving may be intimated in the compliance report to the Commission by September 30<sup>th</sup>, 2015.

**Directive 7: Solar Power Purchase:**

Chandigarh has been declared as a Solar City by MNRE. Solar RPOs should be first met by using Solar Energy produced in the UT from the existing plants or any new

plant that may come up, before making any purchases of RECs for RPO compliance. Efforts are to be made to popularize Solar Power by sending handbills along with the bills or any other method.

**Directive 8: Levy of Service Charges**

The service charges, as are being levied by the CED in line with Chandigarh Administration Gazette notification no. G1/2002/4 dated 30 Sept 2002 will not be levied by the CED henceforth as these will be covered under fixed charges as are approved by the Commission in the Tariff Order for FY 2015-16

**Directive 9: Connected Load)(kW) wise – number of Domestic, Commercial and Agriculture consumers**

With the introduction of Fixed Charges per month the Petitioner is required to submit the data based on kW of Connected load. The information furnished during Technical validation session on 24<sup>th</sup> -25<sup>th</sup> March 2015 on NRS (19694 number of consumers up to 20 kW for 101661.895 kW load, and 2431 nos. for 281904.594 kW also be confirmed in writing).

The kWh consumption and kW profile of agriculture may also be given.

**Directive 10: Filing of Petitions in time**

The last date of filing the ARR & Tariff Petition is November 30<sup>th</sup> every year. The Petitioner has never filed the Petition in time as seen from Table 2.1. The Commission views this as a repeated failure in filing the Petition on time. The Petitioner shall ensure filing the Petition for ARR & Tariff Petition latest by 30<sup>th</sup> November of the preceding year for which ARR and Tariff is being filed. The next petition will be filed by November 30<sup>th</sup> , 2015.

**Directive 10: Business Plan for MYT Control Period**

As elaborated in Para2.4.1 of this Tariff Order, the details in the Business Plan submitted by the utility are insufficient. The supporting data such as, cost benefit analysis of each Scheme, financing plan, loss reduction trajectory have not been adequately submitted. In view of the same, the Commission is constrained to defer

the implementation of Multi-Year Tariff and concomitant business plan. The Petitioner is therefore directed to submit the revised Business Plan for the period FY 2016-17 to FY 2018-19, along with requisite details as provided in JERC (Multi Year Tariff) Regulations 2014, latest by July 31<sup>st</sup>, 2015. **No further extension will be given as the MYT petition would be required to be prepared only after approval of the Business Plan. The MYT Petition submission deadline remains as 30<sup>th</sup> November**

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## 8. TARIFF PRINCIPLES AND DESIGN

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### 8.1 Preamble

The Commission in determining the revenue requirement and retail supply tariff for the FY 2015-16 has been guided by the provisions of the Electricity Act, 2003, the Tariff Policy, Regulations on Terms and Conditions of Tariff issued by the Central Electricity Regulatory Commission (CERC) and JERC Regulations 10/2009 on Terms and Conditions of Tariff notified by the JERC. Section 61 of the Act lays down the broad principles, which shall guide determination of retail tariff.

Keeping view of the above, the Commission has designed the tariff in such a way that cross subsidy between different categories of Consumers remains within  $\pm 20\%$  of average cost of supply and that even for BPL category consumers, Tariff is close to 58% of the average cost of supply.

### 8.2 Tariff Proposal

#### Petitioner's submission

The category wise existing and proposed tariff submitted by the Petitioner are as under:

**Table 8.1: Existing and Proposed Tariff for FY 2015-16 - Petitioner's Submission**

S. No.	Category/Consumption Slab	Existing Tariff		Hike Proposed for FY 2015-16 CED's Proposal		Proposed Tariff FY 2015-16	
		Demand Charges (Rs./KW/Month)	Variable Charges (Rs/ Kwh)	Demand Charges	Variable Charges	Demand Charges (Rs./KW/Month)	Variable Charges (Rs/ Kwh)
A	Domestic						
1	SPD-JJ Clusters/ Unauthorized Colonies/ Slum	0.00	2.30	No Change	10%	0.00	2.60
2	0-150 kWh	0.00	2.30	Proposed on Connected Load	10%	Proposed on Connected Load	2.60
3	151 kWh-400 kWh	0.00	4.20		10%		4.70
4	Above 400 kWh	0.00	4.40		15%		5.10
Fixed charges are proposed on connected load and not on consumption as follows							
		Connected Load	Fixed Charges (Rs./kW/KVA/HP/Month)				
			Existing	Proposed			
		0-20 KW	-	20.00			
		> 20 KW	-	20.00			
B	Commercial						
4	0-150 kWh	6.00	4.30	Proposed on Connected Load	10%	Proposed on Connected Load	4.80
5	151 kWh-400 kWh	70.00	4.50		10%		5.00
6	Above 400 kWh	70.00	4.70		15%		5.50
Fixed charges are proposed on connected load and not on consumption as follows							
		Connected Load	Fixed Charges (Rs. / kW / KVA / HP / Month)				
			Existing	Proposed			
		0-20 KW	-	30.00			
		> 20 KW	-	100.00			
C	Large Supply	70.00	4.70	43%	15%	100.00	5.50
D	Small Power	6.00	4.40	400%	10%	30.00	4.90
E	Medium Supply	70.00	4.50	43%	5%	100.00	5.20
F	Agriculture	0.00	2.30	No Change	5%		2.50
G	Public Lighting						
	Public Lightning	70.00	4.30	43%	15%	100.00	5.00
	Sign Boards	70.00	6.00	43%		100.00	6.00
H	Bulk Supply	70.00	4.50	43%	15%	100.00	5.20
I	Others-Temporary Supply	0.00	6.70	No Change	10%		7.80



**Commission's Analysis of Fixed Charges and Variable Cost.**

As above, the Petitioner has proposed an increase of 10-15% in the existing tariff (variable charges) of FY 2014-15 to arrive at the tariff for FY 2015-16. However, the percentage of increase in variable charges proposed by the Petitioner is not in conformity with the above % ages of the existing tariff for FY 2015-16 due to rounding off and resulting in much higher variable charges to the tune of 11.4 % to 17 %.

The Commission has determined the retail tariff for FY 2015-16 keeping in view the guiding principles as stated in Section 61 of the Electricity Act and considered the suggestions/objections of the stakeholders in this regard.

The Commission is of the view that, since there is no audited data available for the past 2-3 years, due to which there may be variations in components such as O&M expenses, Depreciation, GFA etc. Moreover, the Fixed Asset Register is also not yet made ready. Once these are made available, these may result in considerable revenue gap, which may lead to tariff shock to the consumers. To avoid this situation, the Commission has approved no increase in the energy charges and marginally increased the fixed charges along with the introduction of fixed charges for Domestic and Commercial categories of consumers. These charges are levied by various SERCs including Haryana and Punjab in the form of monthly minimum charges (MMC). The Commission has not changed the energy charges or variable charges for any category of Consumers In order to motivate them for using energy efficient LED lamps for lighting and also BEE certified electrical equipment to reduce the electrical consumption. The detailed approved category wise, slab wise tariff is mentioned in chapter 11 of this Order.

The Petitioner has proposed an increase of fixed charges to the tune of 143 % to 500 % for various categories and introducing fixed charges for Domestic Consumers. This is in addition to the service charges payable by the Consumers as per Chandigarh Administration Gazette no G1/2002/4 dated 30.9. 2002

The Commission in introducing the fixed charges for Domestic & Commercial categories is attempting to rationalize connected load and investments on the infrastructure for same. By introducing the fixed charges on the consumers, the consumers will be restricted to apply for the actual load requirement of the consumer. In case the consumer is not charged the fixed charges, he may apply for the unrealistic load for which the Department has to invest through unwarranted capital cost. As such the fixed charges should be levied to all the consumers so that the realistic requirement can be foreseen for aligning the investment through capital cost.

While approving the ARR for FY 2015-16, the following was considered:

- i. The last tariff hike was in FY 2012-13 and remained unchanged for three Years till FY 2014-15.
- ii. There is a surplus in ARR which may insulate the UT from further increases in tariff due to increase in the Power Purchase Cost during Review / True up.
- iii. The Cost of Power Purchase is likely to increase in 2015-16.
- iv. The Chandigarh Electricity Department (CED) is getting ready with the Accounts on Commercial Principles.
- v. CED is also getting ready with Fixed Asset Register
- vi. Once the action on iii & iv above is completed by CED, the licensee may get increased amount towards the Operation and Maintenance Charges, Interest on finance charges, depreciation, Return on equity etc., than provisioned for now. The Employee Cost may increase due to additional manpower approved by the Commission, investment on safety of men at work & Increased Infrastructural cost for achieving higher Standards of Performance.
- vii. Investment in reduction of T&D losses.
- viii. Investment on Energy Saving.
- ix. The introduction of Fixed Charges has resulted in very marginal increase of 1.4% overall for FY 2015-16.
- x. The UT has no Power Generation on its own and is thus dependent on external power purchase, which is on the increase.

xi. The charges will be governed by the Tariff Schedule attached herein.

The high consumption slab consumers are motivated to use higher star rating of BEE certified electrical equipment, Industry to go in for energy audit and thus reduce electrical consumption.

This also makes a case of consumers getting motivated for setting up Solar Roof Top projects and feed to the grid for getting compensated at Gross Metering or offsetting electrical consumption in higher tariff bracket through net metering.

In any case the, Surplus or the gap will be reviewed and trued up as per regulatory provisions.

The approved Tariff for FY 2015-16 is given in the table below:

**Table 8.2: Commission's Approved Tariff for FY 2015-16**

Sl. No.	Category/Consumption Slab	Approved Tariff for FY 2015-16	
		Demand Charges (Rs./KW/Month)	Variable Charges (Rs/ kWh)
<b>A</b>	<b>Domestic</b>		
1	<i>SPD-JJ Clusters/ Unauthorized Colonies/ Slum Dwellers</i>	0.00	2.30
2	<i>0-150 kWh</i>	7.00	2.30
3	<i>151 kWh-400 kWh</i>	7.00	4.20
4	<i>Above 400 kWh</i>	7.00	4.40
<b>B</b>	<b>Commercial</b>		
4	<i>0-150 kWh</i>	10.00	4.30
5	<i>151 kWh-400 kWh</i>	75.00	4.50
6	<i>Above 400 kWh</i>	75.00	4.70
C	Large Supply	75.00	4.70
D	Small Power	10.00	4.40
E	Medium Supply	75.00	4.50
F	Agriculture	0.00	2.30
G	Public Lighting	75.00	4.30
H	Sign Boards	75.00	6.00
I	Bulk Supply	75.00	4.50
J	Others-Temporary Supply	0.00	6.70

The category wise revenue from the above-mentioned approved tariff works out to Rs.744.63 Crore, which is just 1.4 % over the revenue generated from existing tariff

for FY 2015-16. The category wise revenue from the approved tariff is shown in the table below:

**Table 8.3: Category wise Revenue and Avg. Realization- FY 2015-16- Commission's Analysis**

Sl. No.	Category/Consumption Slab	Approved Tariff for FY 2015-16	
		Total Revenue (Rs. Crore)	Average Revenue Realization (Rs./kWh)
<b>A</b>	<b>Domestic</b>		
1	<i>SPD-JJ Clusters/ Unauthorized Colonies</i>	0.00	0.00
2	<i>0-150 kWh</i>	16.94	2.57
3	<i>151 kWh-400 kWh</i>	85.39	4.34
4	<i>Above 400 kWh</i>	209.13	4.45
<b>B</b>	<b>Commercial</b>		
1	<i>0-150 kWh</i>	2.87	4.96
2	<i>151 kWh-400 kWh</i>	8.76	6.18
3	<i>Above 400 kWh</i>	253.48	5.35
C	Large Supply	54.22	5.33
D	Small Power	8.58	4.52
E	Medium Supply	50.09	5.12
F	Agriculture	0.37	2.30
G	Public Lighting	9.36	4.57
H	Sign Boards	-	-
I	Bulk Supply	41.63	4.99
J	Others-Temporary Supply	3.81	6.70
	<b>Total</b>	<b>744.63</b>	<b>4.79</b>

### 8.3 Average Cost of Supply

The Commission observed the tariff being charged to most of the categories of consumers is below average of cost of supply. The Commission has attempted to reduce the cross subsidy in the consumer categories in this order, by rationalizing the tariff for subsidized categories and suitably adjusting the tariff for subsidizing categories, vis-à-vis the prevailing cost of supply, while at the same time, trying to ensure that there is no tariff shock to any consumer category.

**Table 8.4: Avg. Cost of Supply- FY 2015-16- Commission's Analysis**

Sl. No.	Category/Consumption Slab	Approved Tariff for FY 2015-16		
		Average Revenue Realization (Rs./kWh)	ACoS (Rs./kWh)- Ref. Table 6.44	% of ACoS
<b>A</b>	<b>Domestic</b>			
1	<i>SPD-JJ Clusters/ Unauthorized Colonies</i>	0.00	4.64	NA
2	<i>0-150 kWh</i>	2.57	4.64	58%
3	<i>151 kWh-400 kWh</i>	4.34	4.64	95%
4	<i>Above 400 kWh</i>	4.45	4.64	96%
<b>B</b>	<b>Commercial</b>		4.64	
1	<i>0-150 kWh</i>	4.96	4.64	114%
2	<i>151 kWh-400 kWh</i>	6.18	4.64	133%
3	<i>Above 400 kWh</i>	5.35	4.64	115%
C	Large Supply	5.33	4.64	117%
D	Small Power	4.52	4.64	99%
E	Medium Supply	5.12	4.64	112%
F	Agriculture	2.30	4.64	50%
G	Public Lighting	4.57	4.64	103%
H	Bulk Supply	4.99	4.64	112%
I	Others- Temporary Supply	6.70	4.64	144%

## 9. DETERMINATION OF OPEN ACCESS CHARGES

### 9.1 Petitioner Submission:

The Petitioner has not submitted any calculation of open access charges in their tariff petition for FY 2015-16. The Commission has therefore in order to facilitate the open access has approved the Open Access related charges for FY 2015-16.

It is also seen from the Petitioner's submission that the Transmission and Distribution business has not been segregated and the CED continues to function as an integrated utility. The Commission in line with the Petitioner's submission and the fact that the expenses of the licensee are consolidated has considered "NIL" transmission charges for the open access consumers in the State.

### 9.2 Allocation Matrix for various costs for Wheeling and Retail Supply Business

The Commission has a firm view that there has to be proper bifurcation of all expenses pertaining to the Petitioner between functions of wheeling business (wire business) and retail supply business. As the Petitioner has not proposed any such bifurcation based on facts the Commission feels prudent to consider the allocation matrix for bifurcation of wheeling and retail ARR as proposed in the 'STAFF PAPER ON OPERATIONALISATION OF OPEN ACCESS (OA) IN THE STATE OF GOA AND THE UTs' in September 2012. The allocation between wheeling and retail supply business for FY 2015-16 as per the approved ARR in this order is provided in the Table 9.1 below:

**Table 9.1: Allocation Matrix for Wheeling and Retail Supply Business for FY 2015-16**

Sl. No.	Particulars	Wire Business (%)	Retail Supply Business (%)	FY 2015-16		
				Wire Business Cost (Rs. Crore)	Retail Supply Cost (Rs. Crore)	Total Amount (Rs. Crore)
1	Cost of Power Purchase	0%	100%	0.00	647.12	647.12
2	Employee Cost	70%	30%	42.32	18.14	60.45
3	A&G expenses	90%	10%	2.46	0.27	2.73
4	R&M Expenses	50%	50%	5.66	5.66	11.32
5	Depreciation	90%	10%	3.36	0.37	3.73
6	Interest & Fin Charges	90%	10%	6.06	0.67	6.73

Sl. No.	Particulars	Wire Business (%)	Retail Supply Business (%)	FY 2015-16		
				Wire Business Cost (Rs. Crore)	Retail Supply Cost (Rs. Crore)	Total Amount (Rs. Crore)
7	Interest on Working Capital	22%	78%	0.77	2.75	3.52
8	Interest on S.D.	0%	100%	0.00	3.15	3.15
9	Return on NFA	90%	10%	1.53	0.17	1.7
<b>10</b>	<b>Sub-Total</b>			<b>62.15</b>	<b>678.30</b>	<b>740.45</b>
11	Less: NTI	0%	100%	0.00	17.82	17.82
12	Less: Revenue from surplus sale of power	0%	100%	0.00	0.00	0
13	<b>Net Revenue Requirement</b>			<b>62.15</b>	<b>660.48</b>	<b>722.63</b>
14	Energy Sales (MU)					1555.75
15	Avg Cost of Supply (Rs/kWh)					<b>4.64</b>

The Commission opines that in the absence of the details of bifurcation of assets and expenses the open access should not be restricted due to lack of information. The Commission in this regard would like to mention that the apportionment of wheeling charges have to account for losses. Therefore, in the absence of the voltage wise details the Commission has considered the bifurcation of wheeling cost based on the sales and AT&C losses at each voltage level. The losses and the demographics of ED Chandigarh are similar to that of Delhi. Therefore, in the absence of voltage level wise losses the Commission has benchmarked the losses as determined by DERC in its Tariff Order dated July 2012–Table No 160. Average losses of the three DISCOMs of Delhi has been accounted for while calculating the losses at HT and EHT Level as the losses & season of Chandigarh are more or less similar to Delhi. Accordingly, the Commission has considered the losses at HT and EHT level at 3.95% and the balance loss has been considered at the LT level.

Therefore, to arrive at the network usage the input energy at each level has been arrived and shown in the table 9.2 below:

**Table 9.2: Determination of input energy for network usage percentage**

Particulars	UoM	Formula	FY 2015-16
Total Input	MU	A	1,803.77
Input for HT and EHT	MU	$B=G/(1-E)$	294.62
% to total input	%	$C=B/A$	16.33%

Particulars	UoM	Formula	FY 2015-16
Losses for HT and EHT (%age of total input)	%	D=F/A	0.65%
Losses for HT and EHT (%age of HT input)	%	E=F/B	3.95%
Losses	MU	F=B-G	11.64
Sales at 11kV and above	MU	G	282.98
Input for LT	MU	H=A-B	1,509.15
% of total input	%	I=H/A	83.67%
Losses at LT level (%age of LT input)	%	J=K/H	15.66%
Losses	MU	K=H-L	236.38
Sales at 11 kV and below	MU	L	1272.77

Accordingly, the wheeling cost has been considered in the ratio of 16:84 and the wheeling charge so arrived has been shown in the table 9.3 below:

**Table 9.3: Wheeling Charges for FY 2015-16**

Particulars	UoM	Formula	FY 2015-16
Wheeling Cost	Rs. Crore	a	62.15
Wheeling Cost at EHT and HT	Rs. Crore	b=a*16%	9.94
Wheeling Cost at LT	Rs. Crore	c=a*84%	52.21
Energy Input at DISCOM	MU	d	1,803.77
Energy input at EHT and HT Level	MU	e=i/(1-g)	294.62
<b>Wheeling Charge at EHT and HT Level</b>	<b>(Rs./kWh)</b>	<b>F=b/e*10</b>	<b>0.34</b>
EHT and LT Losses	%	g	3.95%
EHT and LT Losses	MU	h=e-i	11.64
Sales at EHT and LT Level	MU	i	282.98
Energy Input at LT	MU	j=d-e	1,509.15
<b>Wheeling Charge at LT Level</b>	<b>(Rs./KWh)</b>	<b>k=c/j*10</b>	<b>0.35</b>
Sales at LT Level	MU	l	1272.77
LT Losses	MU	m=j-l	236.38
LT Losses	%	(m/l)*100	15.66%
<b>Total Losses</b>	<b>MU</b>	<b>n=h+m</b>	<b>248.02</b>
	<b>%</b>	<b>(n/d)*100</b>	<b>13.75%</b>

### 9.3 Cross Subsidy Surcharge

The Cross subsidy surcharge is based on the following formula given in the Tariff Policy as below:

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



Where,

S is the surcharge

T is the Tariff payable by the relevant category of consumers;

C is the Weighted average cost of power purchase of top 5% at the margin excluding liquid fuel based generation and renewable power

D is the Wheeling charges

L is the System losses for the applicable voltage level, expressed as percentage.

The Computation of each item is given below:

**Table 9.4: Calculation of 'T'- Tariff Payable by the relevant category of consumers- Commission's Approval**

Particulars	Sales (MU)	Revenue Approved for FY 2015-16	Avg. (Rs./kWh)
Large Supply (HT)	101.66	54.22	5.33
Medium Supply (HT)	97.90	50.09	5.12
Bulk Supply (HT)	83.42	41.63	4.99
<b>Total</b>	<b>282.98</b>	<b>145.944</b>	<b>5.16</b>

**Table 9.5: Calculations of 'C'- Wt. Avg. power purchase cost - Commission's Approval**

Particulars	Energy Procured (MU)	Average Rate (Rs./kWh)	Total Power Purchase Cost (Rs. Crore)
BBMB	93.56	5.42	50.71
<b>Weighted Ave. Cost of 'C'</b>			<b>5.42</b>

**Table 9.6: Cross Subsidy Charges for FY 2015-16 – Commission's Approval**

Cross Subsidy Surcharge	UoM	FY 2015-16
T from Table 9.4	Rs. Per kWh	5.16
C from Table 9.5	Rs. Per kWh	5.42
D from Table 9.3	Rs. Per kWh	0.34
L from Table 9.3	%	3.95%
<b>Surcharge 'S'</b>	<b>Rs. Per kWh</b>	<b>-0.81</b>

#### **9.4 Additional Surcharge**

In order to promote competition through open access the Commission approved “Nil” Additional Surcharge. This would be revised at the time of next tariff order based on Open Access implementation.

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## 10. CONCLUSION OF COMMISSION'S ORDER

This Order covers Review of FY 2014-15 under chapter 5 of this Order.

The Commission has not considered a Final True-up for FY 2011-12, FY 2012-13 and provisional True-up for FY 2013-14 in the absence of audited accounts as per Para 2.5.3 of this Order.

The Business Plan (Petition No. 163/2015) has also not been considered as per Para 2.5.1 of this Order.

Having considered the Petition no. 164/2015 of Electricity Department of UT Chandigarh for approval of Aggregate Revenue Requirement (ARR) and determination of retail tariffs for supply of energy and data gaps submitted by the utility, Commission approves the Aggregate Revenue Requirement (ARR) and the revised tariff schedule for Chandigarh.

1. The break-up of the Aggregate Revenue Requirement approved for Chandigarh for the year 2015-16 is given below.

**Table 10.1: ARR as approved in Chapter 6 (Table: 6.43)**

Sl. No.	Particulars	FY 2015-16 Approved by the Commission
1	Cost of power purchase	647.12
2	Employee costs	60.45
3	Administration and general expenses	2.73
4	R&M expenses	11.32
5	Depreciation	3.73
6	Interest and finance charges	6.73
7	Interest on working capital	3.41
8	Return on NFA /Equity	1.70
9	Provision for Bad Debt	0.00
10	Interest on Security Deposit	3.15
<b>11</b>	<b>Total Revenue Requirement</b>	<b>740.34</b>
12	Less: Non-Tariff Income	17.82
13	Less: Revenue from Sale through UI	0.00
14	Less: Revenue from Sale of Power-	0.00

Sl. No.	Particulars	FY 2015-16 Approved by the Commission
	Exchanges	
<b>15</b>	<b>Net Revenue Requirement (11-12-13-14)</b>	<b>722.52</b>
16	Revenue from Retail Sales at Existing Tariff	734.04
17	FPPPCA billed during the year	0.00
<b>18</b>	<b>Net Gap/(Surplus) (15-16-17)</b>	<b>(11.52)</b>
19	Gap/(Surplus) for the previous year	(36.17)
20	Carrying Cost	0.00
<b>21</b>	<b>Total gap/(surplus) (18+19+20)</b>	<b>(47.69)</b>
22	Additional revenue from proposed tariff	10.59
<b>23</b>	<b>Revenue Gap/ (Surplus), if any, after proposed tariffs (21-22)</b>	<b>(58.28)</b>
24	Budgetary Support from Government	0.00
<b>25</b>	<b>Net Revenue Gap/ (Surplus )</b>	<b>(58.28)</b>

2. The approved retail tariff (as given below) shall be in accordance with the tariff schedule specified in this order to meet the ARR of FY 2015-16.

**Table 10.2: Commission's Approved Tariff in Chapter 8 (Table: 8.2)**

Sl. No.	Category/Consumption Slab	Approved Tariff for FY 2015-16	
		Demand Charges (Rs./KW/Month)	Variable Charges (Rs./ kWh)
<b>A</b>	<b>Domestic</b>		
1	<i>SPD-JJ Clusters/ Unauthorized Colonies/ Slum Dwellers</i>	0.00	2.30
2	<i>0-150 kWh</i>	7.00	2.30
3	<i>151 kWh-400 kWh</i>	7.00	4.20
4	<i>Above 400 kWh</i>	7.00	4.40
<b>B</b>	<b>Commercial</b>		
4	<i>0-150 kWh</i>	10.00	4.30
5	<i>151 kWh-400 kWh</i>	75.00	4.50
6	<i>Above 400 kWh</i>	75.00	4.70
C	Large Supply	75.00	4.70
D	Small Power	10.00	4.40
E	Medium Supply	75.00	4.50
F	Agriculture	0.00	2.30
G	Public Lighting	75.00	4.30
H	Sign Boards	75.00	6.25
I	Bulk Supply	75.00	4.50
J	Others-Temporary Supply	0.00	6.70

3. The value of K factor for the different consumer categories for use in the FPPCA formula is as below.

**Table 10.3: 'K Factor' - Growth Rate in Consumer Base for calculating FPPCA Commission's Approval**

<b>S. No.</b>	<b>Category/Consumption Slab</b>	<b>K Factor</b>
<b>A</b>	<b>Domestic</b>	
1	<i>SPD-JJ Clusters/ Unauthorized Colonies/ Slum Dwellers</i>	NA
2	<i>0-150 kWh</i>	0.55
3	<i>151 kWh-400 kWh</i>	0.94
4	<i>Above 400 kWh</i>	0.96
<b>B</b>	<b>Commercial</b>	
4	<i>0-150 kWh</i>	1.07
5	<i>151 kWh-400 kWh</i>	1.33
6	<i>Above 400 kWh</i>	1.15
<b>C</b>	<b>Large Supply</b>	<b>1.15</b>
<b>D</b>	<b>Small Power</b>	<b>0.97</b>
<b>E</b>	<b>Medium Supply</b>	<b>1.13</b>
<b>F</b>	<b>Agriculture</b>	<b>NA</b>
<b>G</b>	<b>Public Lighting</b>	<b>0.98</b>
<b>H</b>	<b>Bulk Supply</b>	<b>1.08</b>
<b>I</b>	<b>Others-Temporary Supply</b>	<b>NA</b>

K Factor is = Avg. Revenue Realization of each slab (category) / Total avg. Revenue Realization.

The FPPCA is not applicable for the consumer categories including BPL, agriculture and temporary supply. Therefore, the K factor against these categories is shown as not applicable (N/A). The formula for calculating FPPCA is as under.

**FPPCA = (Power Purchase Cost- Transmission Charges) / (Approved Sales in MUs) - (Sales to JJ Clusters + Sales to Agriculture)**

4. All existing provisions which are not modified by this order, shall continue to be in force. The licensee shall publish the revised tariff structure and the salient features of tariff within one week in three daily newspapers in Hindi, Punjabi and one in English, having wide circulation in their respective areas of supply. The distribution licensee shall also publish a booklet in Hindi, Punjabi and English containing all details of tariff and its applicability for the benefit of consumers. It should be made available for sale to public at a nominal price.
  
5. The licensee will compute fuel and power procurement cost variations on quarterly basis and adjustment shall be made in consumer bills starting next month following the end of the quarter based on the Fuel & Power Purchase Cost Adjustment (FPPCA) formula notified by the Commission. For the purpose of calculation using FPPCA formula as already notified by the Commission, **the**

approved per unit cost of power purchase ( $R_{Approved}$ ) for use in the FPPCA formula (paise per unit) is 393 paise per unit for FY 2015-16. The approved per unit cost of power purchase for FY 2015-16 to be considered in the FPPCA formula excluding transmission charges of PGCIL, SLDC charges, RLDC charges and charges for reactive energy (paise per unit).

6. The order will come into force from **April 1<sup>st</sup>, 2015** onwards and will continue to be applicable till such time new order is issued by the Commission.
7. Copy of this order may be sent to Petitioner, CEA and Administration of UT of Chandigarh. It shall be placed on the website of the Commission.

हस्ताक्षरित

सुधीर चतुर्वेदी  
अध्यक्ष

स्थान : गुडगाँव

दिनांक: 10 अप्रैल, 2015

सत्यापित प्रतिलिपि

कीर्ति तिवारी

सचिव

संयुक्त विद्युत विनियामक आयोग  
(गोवा और केंद्र शासित प्रदेशों के लिए)

## 11. TARIFF SCHEDULE

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### TARIFF SCHEDULE

#### 11.1 GENERAL CONDITIONS FOR LT & HT SUPPLY

The above mentioned LT/HT Tariffs are subjected to the following conditions, applicable to all category of consumers.

#### General Terms and Conditions

- 1) The tariffs are exclusive of electricity duty, taxes and other charges levied by the Government or other competent authority from time to time which are payable by the consumers in addition to the charges levied as per the tariffs.
- 2) Unless otherwise agreed to, these tariffs for power supply are applicable for supply at one point only.
- 3) If energy supplied for a specific purpose under a particular tariff is used for a different purpose, not contemplated in the contract for supply and / or for which higher tariff is applicable, it will be deemed as unauthorized use of electricity and shall be dealt with for assessment under the provisions of section 126 of the Electricity Act, 2003 & Supply Code Regulation notified by JERC.
- 4) Fixed charges, as applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, as applicable, will be double as and when bi monthly billing is carried out, Similarly slabs of energy consumption will also be considered accordingly in case of bi-monthly billing.
- 5) If connected load of a domestic category is found to be at variance from the sanctioned/contracted load as a result of replacement of appliances such as lamps, fans, fuses, switches, low voltage domestic appliances, fittings, it shall not fall under Section 126 and Section 135 of the EA 2003.
- 6) Fixed charges, wherever applicable, will be charged on pro-rata basis from the date of release of connection. Fixed charges, wherever applicable, will be double

as and when bi-monthly billing is carried out, Similarly slabs of energy consumption will also be considered accordingly in case of bi-monthly billing.

- 7) The billing in case of HT/EHT shall be on the maximum demand recorded during the month or 75% of contracted demand, whichever is higher. If in any month, the recorded maximum demand of the consumer exceeds its contracted demand, that portion of the demand in excess of the contracted demand shall be billed at double the normal rate. Similarly, energy consumption corresponding to excess demand shall also be billed at double the normal rate. The definition of the maximum demand would be in accordance with the provisions of the Supply Code Regulation. If such over-drawl is more than 20% of the contract demand then the connections shall be disconnected immediately.

**Explanation:** Assuming the contract demand as 100 KVA, maximum demand at 120 KVA and total energy consumption as 12000 kWh, then the consumption corresponding to the contract demand will be 10000 kWh ( $12000 \times 100 / 120$ ) and consumption corresponding to the excess demand will be 2000 kWh. This excess demand of 20 KVA and excess consumption of 2000 kWh will be billed at twice the respective normal rate. Such connections drawing more than 120 kVA, shall be disconnected immediately.

**8) Power Factor Charges for HT and EHT**

The monthly average power factor shall mean the ratio expressed as percentage of total kWh to total kVAh supplied during the month. The ratio shall be rounded up to two figures.

(a) The monthly average power factor of the supply shall be maintained by the consumer not less than 0.90 (lagging). If the monthly average power factor of a consumer falls below 90% (0.9 lagging), such consumer shall pay a surcharge in addition to his normal tariff @ 1% on billed demand and energy charges for each fall of 0.01 in power factor upto 0.7(lagging)



(b) In case the monthly average power factor of the consumer is more than 95% (0.95 lagging), a power factor incentive @ 0.5% on demand and energy charges shall be given for each increase of 0.01 in power factor above 0.95 (lagging)

(c) If the average power factor falls below 0.70 (lagging) consecutively for 3 months, the licensee reserves the right to disconnect the consumer's service connection without prejudice for the levy of the surcharge.

(d) The power factor shall be rounded off to two decimal places. For example, 0.944 shall be treated as 0.94 and 0.946 shall be treated as 0.95

**9) Additional charges for exceeding contracted load/contracted maximum demand,**

If in two continuous months the consumer exceeds the contracted load/contracted demand the portion of the load/demand in excess of the contracted load/demand will be dealt as per the provisions made in JERC (Electricity Supply Code), 2010.

This will not be applicable to the consumers who has self-declared their connected load as the provision under regulation 4.13 (2) of Supply Code Regulations, 2010 as amended from time to time.

**10) Maximum Demand**

The maximum demand of supply of electricity during a month shall be twice the largest number of Kilo-Volt Ampere hours (KVAH) delivered at the point of supply to the consumers during any consecutive 30 minutes in the month. However for the consumers having contracted demand above 4000 KVA the maximum demand shall be four times the largest number of Kilo-Volt Ampere hours (KVAH) delivered at the point of supply to the consumers during any consecutive 15 minutes in the month.

**11) Delayed payment surcharge** shall be applicable to all categories of consumers. Delayed payment surcharge of 2% per month or part thereof shall be levied on all arrears of bills. Such surcharge shall be rounded off to the nearest multiple of one rupee. Amount less than 50 paise shall be ignored and amount of 50 paise or

more shall be rounded off to next rupee. In case of permanent disconnection, delayed payment surcharge shall be charged only upto the month of permanent disconnection.

- 12)** However, the Department shall have the right to disconnect the supply after giving 15 days' notice as per provision of the Act & Supply Code Regulation ,if the consumer fails to pay the energy bill presented to him by the due date,.
- 13) Advance Payment Rebate:** If payment is made in advance well before commencement of consumption period for which bill is prepared, a rebate @ 1% per month shall be given on the amount (excluding security deposit) which remains with the licensee at the end of the month. Such rebate, after adjusting any amount payable to the licensee, shall be credited to the account of the consumer.
- 14) Prompt Payment Rebate:** If payment is made at least 7 days in advance of the due date of payment a rebate for prompt payment @ 0.25 % of the bill amount shall be given. Those consumers having arrears shall not be entitled for such rebate.
- 15)** The adjustment on account of Fuel and Power Purchase Cost variation shall be calculated in accordance with FPPCA formula separately notified by the Commission under the Regulation. Such charges shall be recovered / refunded in accordance with the terms and conditions specified in the FPPCA formula.
- 16)** The values of the 'K' factor applicable for the different consumer categories for use in the FPPCA formula shall be as specified in this Tariff Order for FY 2015-16.
- 17) Surcharge for Low Power Factor/Non Installation of Required rated LT Shunt Capacitors**
- a) Consumer using LT installation with welding transformers and induction meters of three HP and above and other low power factor consuming appliances shall arrange to install low tension shunt capacitors of required rating and shall maintain these capacitors in good working condition. No

service connection shall be released without installation of shunt capacitor(s) of required rating. In case the shunt capacitor(s) are found to be missing or inoperative or damaged, 15 day notice shall be issued to the consumer by the licensee for rectification of the defect and setting right the same. In case the defective capacitor(s) are not replaced/rectified within 15 days of given notice, a surcharge of 20% on the billed energy charges shall be levied till defective capacitor(S) are replaced/rectified to the satisfaction of the licensee.

- b) Consumers in whose L.T connections the meter provided by the licensee have the power factor recording feature, shall install shunt capacitors of adequate rating to ensure power factor of 90% or above failing which low power factor surcharge at the rates noted below will be levied.

<b>Sl.</b>	<b>Power Factor range</b>	<b>Surcharge</b>
1.	90% and above	NIL
2.	Below 90% and upto 85%	1% of billed energy charges of that month for every 1% fall in power factor from 90%
3.	Below 85% and upto 80%	1.5 % of billed energy charges of that month for energy 1% fall in P.F from 85%
4.	Below 80% and upto 75%	2% of billed energy charges of the month for energy 1% fall in P.F from 80%
5.	Below 75%	3% of billed energy charges of that month for energy 1% fall in P.F from 75%

Should the power factor drop below 70% the licensee may disconnect supply after due notice of 15 days to any installation without prejudice to the right of the licensee to levy demand/fixed charges as applicable during the disconnection period

### **18) Plant & Apparatus**

The following features shall be installed:

- a) LT installation with welding transformers will be required to have suitable shunt capacitor(s) installed so as to ensure power factor of not less than 90%.
- b) Every LT consumer, including irrigation pump set consumer, whose connected load includes induction motors of 3 HP and above and other low power factor

consuming appliances shall arrange to install Low tension Shunt capacitors of appropriate capacity so as to ensure power factor of not less than 90% at his cost across the terminals of his motor(s)

- c) A linked switch with fuse(s) or a circuit breaker for consumer having aggregate installed transformer/apparatus capacity up to 1000 KVA if supplied at voltage of 11 KV and 2500 kVA if supplied at voltage of 33 kV.
- d) A circuit breaker along with linked switch for consumer having an aggregate installed transformer apparatus capacity above 1000 kVA if supplied at 11 kV and above 2500 kVA if supplied at 33 kV.
- e) In either case, suitable automatic circuit breakers shall be installed on the low tension side of each transformer or on each LT feeder emanating from the transformer.
- f) Extra High Tension consumer shall install a circuit breaker on HV side of the transformer.

## **19) Unauthorized use of Electricity**

### **A) Cases to be treated as Unauthorized Use of Electricity**

- 1) The following acts on the part of consumer are to be considered as unauthorized use of electricity for the purpose of assessment under the provisions of Section 126 of the Act;
  - I. Use of electricity by any artificial means; or
  - II. Unauthorized use of electricity by means without the permission of the concerned person or authority or licensee; or
  - III. Use of Electricity in the premises where supply is disconnected by the licensee.
  - IV. Disconnection of neutral
  - V. Tampering with meter or equipments associated with metering provided by the licensee and not reported to the licensee

**B) Cases not to be treated as Unauthorized Use of Electricity**

- I. If connected load of a domestic category is found to be at variance from the sanctioned/contracted load as a result of increase of load or due to replacement of lamps, fans, fuses, switches, low voltage domestic appliances, fittings, etc it shall neither fall under unauthorized use of electricity (Section 126 of EA 2003) nor under theft of electricity (Section 135 of EA 2003).
- II. Supply to activities incidental to main activity, for example supply to chemist shop in nursing homes and hospitals; tea shop, canteen, employees' cooperative store, dispensaries, puncture shop in petrol pumps etc. provided that the connected load for such activities remains within 5% of the sanctioned load or 5 kW, whichever is less.
- III. In case of domestic/non-domestic connection(s), extension of supply from connection to other portion of the building/plot including for servant quarters, own parking garages or for social requirements relating to personally religious functions, sports etc. in residential areas so long as the supply is not extended to any portion for which connection has been disconnected due to non-payment of dues and there is no change in the category of use.
- IV. Professionals such as Doctors , Engineers, lawyers, CAs, Journalists and Consultants practicing from their residence irrespective of location provided that such use shall not exceed 25% of the area of the premises or 50 sq meters, whichever is less subject to installation of MDI meters.
- V. For cottage and commercial activities operating in residences such as repair of shoes by cobbler, dhobi, ironing of clothes, stitching/knitting, paan-shop, bakery products etc shops, tea shops etc. with total load (maximum demand) of 5 kW domestic tariff shall be applicable subject to installation of MDI meters.
- VI. In industrial or commercial premises where the supply is used by one or more persons where partition in business takes place or division in the family occurs or where user of the connection changes due to succession.

**20) Time of Day (TOD) tariff**

(i) Under the Time of Day (ToD) Tariff, electricity consumption and maximum demand in respect of HT/EHT consumers for different periods of the day, i.e. normal period, peak load period and off-peak load period, shall be recorded by installing a ToD meter.

(ii) The maximum demand and consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer, as TOD metering is not yet implemented.

<b>Period of use</b>	<b>Hrs.</b>	<b>Demand Charges</b>	<b>Energy Charges</b>
<b>Normal period</b>	<b>6:00 a.m. to 6:00 p.m</b>	Normal Rate	Normal rate of energy charges
<b>Evening peak load period</b>	<b>6:00 p.m to 10.00 p.m</b>	Normal Rate	Normal rate of energy charges
<b>Off-peak load period</b>	<b>10:00 p.m to 6:00 a.m</b>	Normal Rate	Normal rate of energy charges

(iii) Applicability and Terms and Conditions of TOD tariff:

(a) TOD tariff shall be **optional** unless otherwise specifically stated to the contrary in the tariff order.

(b) The facility of aforesaid TOD tariff shall not be available to HT/EHT consumers having captive power plants and/or availing supply from other sources through wheeling of power.

(c) The HT/EHT industrial consumers who have installed standby generating plants shall also be eligible for the aforesaid TOD tariff.

(d) In the event of applicability of TOD tariff to a consumer, all other terms and conditions of the applicable tariff shall continue to apply.

**21) Schedule of service charges and other charges as approved in the tariff order of FY 2015-16.**

### 11.2 Miscellaneous and General Charges

Sr. No	Description	Approved
A	Application processing charges for new connection/ enhancement of load/ reduction of load/	
I	Domestic supply	Rs 25/-
ii	Non-Domestic Supply	Rs 100/-
lii	SP, MS and street lighting supply.	Rs 250/-
Iv	LS and bulk supply	Rs 500/-
V	AP supply	Rs 25/-
Vi	Temporary metered supply	Two times the normal rates of category of permanent supply
B	Charges for Re-fixing/ Changing of meter /Meter Board in the same premise on consumer request when no additional material is required. (When the cause leading to subsequent change/replacement of meter is either manufacturing defect or Department's fault then, it shall be free of cost and further, if shifting of meter is done in the interest of department work then it is free of cost.)	
I	Single Phase Meter	250/- per meter
ii	Three Phase Meter without CT	500/- per meter
lii	Three Phase Meter (with CTs & PTs)	1000/- per meter
Iv	Trivector and special type meters	1200/- per meter
V	HT/ EHV metering equipment	3000/- per meter
C	Meter Inspection & Testing Charges (In case correctness/accuracy of a meter belonging to the Licensee is challenged by the consumer)	
I	Single phase	150/- per meter
ii	3-phase whole current i.e. without C.T	500/- per meter
lii	L.T. meter with CTs	1500/- per meter
Iv	H.T. & E.H.F metering equipment.	3000/- per meter
	NOTE: If the challenged meter is found to be incorrect / defective, the credit of these charges will be given to the consumer, otherwise these will be forfeited.	
D	Re-sealing charges (irrespective of the number of seals involved against each item below and where seals found to have been broken by the consumer):	

<b>Sr. No</b>	<b>Description</b>	<b>Approved</b>
I	Meter cupboard	50/-
li	Where cut-out is independently sealed	50/-
lii	Meter cover or Meter Terminal cover (Single phase)	150/-
Iv	Meter cover or Meter Terminal cover (3-phase)	375/-
V	Maximum Demand Indicator or C.T.s Chamber	900/-
Vi	Potential fuses	900/-
	Note: If M&T and ME seals are found to be broken/tempered cost of meter shall be recoverable and the case shall be treated as theft case.	
E	Reconnection Charges	
A	Reconnecting/connecting the premises of any consumer who was previously disconnected on account of breach of his agreement with the department or of any other provisions of the Act as may be relevant.	
I	Domestic supply	Rs 250/-
li	Non-Domestic Supply	Rs 500/-
lii	SP, MS and street lighting supply	Rs 500/-
Iv	LS and bulk supply	Rs 1000/-
V	AP supply	Rs 250/-
Vi	Temporary metered supply	Rs 1500/-
F	Testing/ Inspection of Consumer's installation	
A	Initial Test/ Inspection	Free of Cost.
B	For subsequent test of a new installation or an extension to an existing installation if the installation is found to be defective or the wiring contractor or his representative fails to be present	
I	Single Phase	Rs 150/- (Payable in advance for each subsequent visit for the purpose of testing the installation.)
li	Three Phase	Rs 200/- (Payable in advance for each subsequent visit for the purpose of



<b>Sr. No</b>	<b>Description</b>	<b>Approved</b>
		testing the installation.)
lii	MS/BS loads upto 100 kW	Rs 500/- (Payable in advance for each subsequent visit for the purpose of testing the installation.)
Iv	LS/BS (loads above 100 kW)	Rs 1000/- (Payable in advance for each subsequent visit for the purpose of testing the installation.)
G	Meter Reading Cards/ Passbook (New/ Replacement)	
I	Provision of meter reading cards including PVC jacket	Rs 5/- per card
li	Replacement of meter card found to be missing on consumer's premises	
lii	Domestic & NRS	Rs 5/- per card
Iv	SP and AP	Rs 10/- per card
V	MS	Rs 25/- per card
Vi	LS	Rs 45/- per card
Vii	Replacement of Passbook in case it is lost by AP Consumer	Rs 60/-
Viii	Replacement of identification card missing on the premises of AP Consumer	Rs 25/-
Ix	Temporary	Rs 60/- per card
H	Meter Rentals	
A	(In case where consumer opts that department to supply departmental meter)	
I	Single Phase meter	Rs 20/- per month
li	Three Phase LT meter	Rs 50/- per month
lii	Three Phase LT meter with CT	Rs 70/- per month
Iv	11 kV Metering System	Rs 500/- per month
V	33 kV Metering System	Rs 1000/- per month
Vi	66 kV Metering System	Rs 2000/- per month
Vii	Replacement of broken glass	
A	Replacement of broken glass of meter cupboard (when the cause of the breakage is considered to be an act or fault of the consumer).	Rs 60/-
B	Replacement of meter glass where the same has been tampered with or broken by the consumer	

<b>Sr. No</b>	<b>Description</b>	<b>Approved</b>
I	Single phase meter	Rs 250/-
li	Three phase meter	Rs 450/-
J	Supply of duplicate copies of electricity bills	
I	Domestic consumers	Rs 5/-
li	Non-Domestic consumers	Rs 10/-
lii	Temporary consumers	Rs 10/-
Iv	L.T. Industrial (upto 20 kW) & AP consumer	Rs 10/-
V	L.T. Industrial (above 20 kW) & Street lighting consumer	Rs 15/-
Vi	H.T. Industrial & bulk supply consumer	Rs 20/-
K	Review of electricity bills	
A	(If the accuracy of licensee's bill is challenged by the consumer and a review of the bills is demanded)	
I	Single Phase Supply	Rs 10/-
li	Three Phase Supply	
	load upto 20 kW	Rs 250/-
	load above 20 kW upto 60 kW	Rs 450/-
	load above 60 kW upto 100 kW	Rs 750/-
lii	Large Supply (above 100 kW)	Rs 1000/-
	NOTE: If the challenged bill is found to be incorrect, the credit of the fee will be given to the consumer, otherwise these will be forfeited.	
L	Testing and calibration including sealing of energy meter owned /supplied by the consumer	
I	Single Phase	Rs 100/-
li	Polyphase whole current meter	Rs 500/-
lii	Polyphase meters with CTs	Rs 1200/-
Iv	HT and EHT metering equipment	Rs 3500/-
M	Checking of the capacitors at the request of the consumer	
A	Consumer receiving supply at	
I	230/440 V	Rs 250/- per visit
li	Above 400 V and up to 11 KV	Rs 500/- per visit
N	Rates for Security Deposit for new/extension in load only.	
	Domestic Supply	200/-
	Non-residential supply	500/-
	Large Supply	1500/-
	Medium Supply	500/-
	Small Supply	300/-

<b>Sr. No</b>	<b>Description</b>	<b>Approved</b>
	Bulk Supply Public Lighting Agriculture Power Others- Temporary Supply	800/- 750/- 120/- 2000/-
I	The amount of Security deposit for new/ extension of load shall be calculated as per the procedure prescribed in clause 6.10 of the JERC Electricity Supply Code Regulation 2010.	
O	Charges recoverable from the consumer when the meter is found damaged / burnt owing to negligence or default on the part of consumer	
I	Single Phase Meter	Rs 700/-
ii	Three Phase Meter	Rs 1550/-
iii	LT CT operated Solid State Meter. (Without CTs)	Rs.3000/-
iv	LT CTs	
A	a) Upto 50/5A	Rs.1,580/-
B	b) Above 50/5 A	Rs. 600/-
C	Solid State HT TPT metering equipment (without CT/PT unit)	Rs.20,000/-
D	H.T.C.T./P.T. Unit	Rs.40,470/-
P	Special Meter reading charges in case of change in occupancy/ vacation of premises for domestic consumers	Rs. 50/-

### **11.3 SCHEDULE FOR SERVICE CONNECTION CHARGES AND SERVICE RENTALS**

Service connection charges are provided in schedule of general and service connection charges are to be recovered from all prospective consumers and existing consumers seeking extension in load. Schedule of service connection charges as prevalent is given under:

**A. SERVICE CONNECTION CHARGES FOR DOMESTIC SUPPLY**

<b>Sr No</b>	<b>Particulars</b>	<b>Category</b>	<b>Rs</b>
1	Single Phase Fixed Per kW Charges		
a	Up to 1 kW	Domestic	250
		NRS	250
b	Above 1 kW and up to 3 kW	Domestic	300
		NRS	300
c	Above 3 kW and 5 kW	Domestic	500
		NRS	750
2	Three Phase Fixed Per kW Charges		
a	Above 5 kW	Domestic	75
		NRS	1000

**Variable Charges**

No variable charges are leviable upto 75 meters. Beyond 75 meters for all loads variable charges at Rs 125 per meter length of service line shall recoverable for loads in excess of 5 kW.

a) Domestic and Non Residential consumers falling under the following categories have the option either to pay in lump sum the service connection charge as mentioned under the preceding clause or to pay monthly service rentals at 1.6 paisa per rupee of the estimated cost of the service line excluding the cost of 30.48 meters.

i) Members of Schedule Castes.

ii) The connection meant for religious and Charitable institutions run by recognized/registered associations or societies registered with Register of Societies.

b) All such prospective and existing consumer who will pay or have paid service connection charges in full shall be exempted from the payment of monthly service rentals.

c) The service rentals to the consumers existing prior to 1-11-2002, if applicable already shall continue

## B. SERVICE CONNECTION CHARGES FOR INDUSTRIAL AND BULK SUPPLY

**For new Connections:**

Sr. No	Load	Service Connection Charge
1	Up to 60 kW	Rs 750/kW

Service connection charges under Para i) shall be applicable for loads upto 60KW where the length of new and augmented or both line(s) to be provided is up to 100 meters which will include 11kV line (whether overhead or cable LT line and service cable. Where this limit exceeds 100 meters, applicant shall be required to pay actual cost of RS 125 per meter of 11 kV line, LT line and service cable in excess of 100 meters as additional service connection charges (nonrefundable). However, no component of distribution substation transformer to be created would be charged wherever applicable.

### **Extension of Load**

**a) Where the consumer is either paying service rentals or had paid the service connection charges on kW basis for the original load.**

i) Extension in load bringing To be charged at Rs 750/- per the total load up to 60 kW for extension part only. However charges for service line in excess of 100 meters shall be charged at Rs 125 per meter for length of service line (new or augmented or both) feeding such consumer. Rentals on original load, if applicable, already shall continue.

**b) Where the consumers had paid the service connection charge in full.**

ii) No charges for extension shall be recoverable where the cost of service/common part of service line had been paid by the applicant at the time of release of original connection provided: No augmentation of service/common portion of service lines had been carried out ever since the release of connection and also the additional load can be released from the existing line without augmentation and the cost deposited by the consumer at the time of release of original connection is not less than 'per kW charges' payable on the basis of total connected load (including extension in load) For calculating per kW charges, the rate as applicable at the time of release of original connection shall apply for the existing load and prevailing rates for the extension in load. Difference, if any, between the actual cost paid

and the recoverable amount 'per KW charges' shall be payable by such consumers at the time of extension in load. This shall also apply to the cases fed through independent feeder laid at the cost of the consumer. The cost of line/bay (33/66/132/220kV) paid by the consumer at the time of clubbing/conversion paid by the consumer at the time of clubbing of supply to higher voltage shall be appropriated towards service connection charges at the time of subsequent release of extension in load, if applicable. However, for calculating total 'per kW charges' service connection charges already recovered in respect of clubbing cases, applicable rates to different connections as existing prior to clubbing are to be taken into account.

Cases involving augmentation of service/Common portion of service line or if the augmentation had taken place subsequent to release of connection shall be default with as per provisions of sub Para (a)

c) While accessing the connected load for working out service connection charges, both general and industrial loads shall be taken into account.

d) The per kW, service charges for extension in load shall be as contained in Para 2 above and those shall be, in addition to the service rentals on the original load, if applicable thereon.

e) An increase in the connected load even without increase in the contract demand shall call for payment of service connection charges an per kW basis as applicable to the category in which total connected load after extension falls and shall be recoverable for extension part only. Consumers seeking extension in contract demand within the sanctioned connected load shall not be required to pay service connection charges on KW basis.

f) Consumers seeking contract demand higher than 60% of the connected load, shall be charged one time charge termed as 'Contract Demand Charges' as under :

Sr. No	Particulars	Rs/kVA
1	<b>For Contract Demand above 60% and up to 80% of connected load</b>	<b>200</b>
2	<b>For Contract Demand above 80% and up to 100% of connected load</b>	<b>300</b>
3	<b>Large Supply Consumers getting at 33 kV and above are exempted from the payment of one time contract demand charges</b>	

g) In case of LT connections, Service rentals to the consumer existing prior to 1-11- 2002, if applicable already shall continue.

**C. RECOVERY OF SERVICES CONNECTION CHARGES FOR EXTENTION OF LOAD BY CONSUMERS WHO HAD PAID THE FULL COST OF THE LINE**

Industrial and Bulk supply consumers availing connection for load exceeding 1MW have to pay the entire cost of service line laid for them. By virtue of paying the entire cost of the line involved in releasing the connection, consumer is entitled to avail within five years extension in load upto 100% of the original line for which the line had been erected provided that line so erected is capable of taking the load i.e. original load and extended load up to 100% of original load. If, however, line already erected is unable to take 100% extension of load, extension in load shall be limited to capacity of the line. In such an event, consumer is not required to pay service connection charges for the extension in load, provided the cost of line already provided by him is more than per kW charges calculated at the applicable rate from time to time on the total load including extension in load applied by the consumer.

a) If the extension in load applied by the consumer is in excess of the capacity of line already erected or more than 100 % of the original load, consumer shall pay the service connection charges as applicable to the new applicants.

b) If during the period of 5 Years from the date of connection some load has already been released from the line, whose entire cost has been paid by the consumer, who seeks extension in load within five years up to the extent of the capacity of the line or 100% of the original load within 5 years up to the extent of the capacity of the line or 100 % of the original load, whichever is lesser, release of additional load shall be regulated as under:

**Load released on voltage above 11 kV and loads 1MW and above on 11kV:**

Extension in load to the original consumer shall be allowed (within the contract demand for which line was originally erected for him) at the cost of the board, even if augmentation/erection of new lines is required.

**Load less than 1MW released on 11 kV**

In this case care should be taken for a period of 5 years that a margin of 100 % of the load of the original consumer is available in the capacity of the line. If other consumer(s) wants connection(s) to be released by utilizing the available margin, new consumer(s) singly or jointly, as the case may be shall pay towards the cost of augmentation of line so that sufficient margin in capacity is available to cater to the additional requirement of the original consumer.

c) Provisions of the preceding Para's of this regulation shall not be applicable where as a result of extension in load the supply voltage level of the consumer changes or when the consumer changes the site of the premises.

**D. SERVICE CONNECTION CHARGES FOR AGRICULTURE POWER**

All prospective tube well consumers covered under general category shall pay Rs 3000 per BHP as service connection charges. The above charges are recoverable where total length of service line including new 11 kV line, LT line (new/augmented) and service cable is upto 1 Km ( out of which LT line/Service cable route length should not exceed 500 meters from the common pole).Where the total length of service line is more than 1 km (out of which LT line/Service cable route length should not exceed 500 meters),applicant under this category shall be required to pay cost of new 11 kV line beyond this limit at Rs 125 per meter as additional service connection charges. However, no component of distribution substation/transmission cost would be charged.

**The detail tariff schedule is as under:**



Sl. No	Consumer Category	Consumption Range	Fixed Charge	Energy Charge	Character of Service AC, 50 cycles,	Applicability , Notes, Load Based Voltage of Supply Classification, Point of Supply, Contract Demand
			Rs. per kW/kVA/HP per Month	Rs./kWh		
<b>1</b>	<b>DOMESTIC SUPPLY (DS)</b>					
	Domestic Supply (DS)	0-150 kWh	<b>7.00</b>	<b>2.30</b>	Single-phase 230 volts or three phase 400 volts or 11-Kilo volts.	Please see para 1
		151-400 kWh	<b>7.00</b>	<b>4.20</b>		
		Above 400 kWh	<b>7.00</b>	<b>4.40</b>		
<b>2</b>	<b>C OMMERCIAL / NON RESIDENTIAL (NRS)</b>					
	COMMERCIAL / NON RESIDENTIAL SUPPLY (NRS)	0-150 kWh	<b>10.00</b>	<b>4.30</b>	Single phase at 230 Volts or 3 Phase at 400 Volts or 11 Kilo volts	Please see para 2
		151-400 kWh	<b>75.00</b>	<b>4.50</b>		
		Above 400 kWh	<b>75.00</b>	<b>4.70</b>		
<b>3</b>	<b>LARGE INDUSTRIAL POWER SUPPLY (LS)</b>					
	Large Power Supply	All Units	<b>75.00</b>	<b>4.70</b>	Three phase 11 kV supply for loads above 100 kW  Supply can be given at 33/66/220kV depending on quantum/type of load. (See	Please see para 3

Sl. No	Consumer Category	Consumption Range	Fixed Charge	Energy Charge	Character of Service AC, 50 cycles,	Applicability , Notes, Load Based Voltage of Supply Classification, Point of Supply, Contract Demand
			Rs. per kW/kVA/HP per Month	Rs./kWh		
					Para 3.2)	
<b>4</b>	<b>MEDIUM INDUSTRIAL POWER SUPPLY (MS)</b>					
	Medium Power Supply	All Units	<b>75.00</b>	<b>4.50</b>	Three phase, 400 volts, or at 11 kV for load above 60 KW.	Please see para 4
<b>5</b>	<b>SMALL INDUSTRIAL POWER SUPPLY (SP)</b>					
	Small Scale Industry	All Units	<b>10.00</b>	<b>4.40</b>	Three phase, 400 volts, or at 11 kV for load above 60 KW.	Please see para 5
<b>6</b>	<b>AGRICULTURAL PUMPING SUPPLY(AR)</b>					
	Agricultural Pumping Supply	All Units	<b>0.00</b>	<b>2.30</b>	Three phase, 400 volts, Single Phase at 230 volts.	Please see para 6
<b>7</b>	<b>PUBLIC LIGHTING (PL)</b>					
	Public Lighting system managed by Municipal Corporation, Panchayat	All Units	<b>75.00</b>	<b>4.30</b>	Three phase, 400 volts, Single Phase at 230 volts.	Please see para 7

Sl. No	Consumer Category	Consumption Range	Fixed Charge	Energy Charge	Character of Service AC, 50 cycles,	Applicability , Notes, Load Based Voltage of Supply Classification, Point of Supply, Contract Demand
			Rs. per kW/kVA/HP per Month	Rs./kWh		
	and Street Lights maintained / outsourced to an external Agency					
	Advertisement / Neon sign Boards- Advertisement boards, bill boards( apart from advertisement boards installed on commercial establishments and	All Units	<b>75.00</b>	<b>6.25</b>	Three phase, 400 volts, Single Phase at 230 volts.	

Sl. No	Consumer Category	Consumption Range	Fixed Charge	Energy Charge	Character of Service AC, 50 cycles,	Applicability , Notes, Load Based Voltage of Supply Classification, Point of Supply, Contract Demand
			Rs. per kW/kVA/HP per Month	Rs./kWh		
	charged under commercial tariff)					
<b>8</b>	<b>BULK SUPPLY (BS)</b>					
	Bulk Supply	<b>75.00</b>	<b>4.50</b>		Three phase, 400 volts or 11 kV or higher voltage at the option of the Licensee. Loads exceeding 60 kW shall be released on HT only.	Please see para 8
<b>9</b>	<b>TEMORARY SUPPLY</b>					
	Temporary Supply	<b>0.00</b>	<b>6.70</b>		Single phase at 230 Volts or three phase at 400 Volts.	Please see para 9

**1. DOMESTIC SUPPLY (DS)**

**APPLICABILITY**

This schedule shall apply for light, fan, domestic pumping sets and household appliances in the following premises:

- a) Single private house/flat.
- b) Government recognized education institutions, viz schools, colleges, universities, ITI hostels, canteens, and residential quarters attached to the educational institutions.
- c) Government and public sports institutions/Gymnasium halls etc. banks and PCO exclusively for the use of educational institutions.
- d) Religious Institutions viz. Temples, Gurudwaras, Mosques, Churches, provided that the Sub Divisional officer concerned authenticates the genuineness of the place being exclusively used for worship by the general public.
- e) Housing colonies and multi storied flats/buildings as defined in Electricity Supply Code Regulations notified by the JERC.
- f) Dispensary / Hospitals / Public Libraries / School / College / Working Women's Hostel / run by the Chandigarh Administration.
- g) Recognized Center/ societies for welfare of blind, deaf and dumb, spastic children, physically handicapped persons, mentally retarded persons, as approved by the Chandigarh Administration.
- h) Orphanage/ Cheshire Home/ Old age homes/ Charitable homes and Gaushalas.
- i) Shelter Homes (including Night Shelters) approved by Chandigarh Administration.
- j) Electric crematoriums.

The Electricity Tariff of Domestic Category will be applicable to the following Consumers:

1. Crematoriums / Burial Grounds
2. The Charitable Organizations viz. Schools, Hospitals, Dispensary, Education and research Institute and Hostel attached to such Institutions registered with the Income Tax authorities under Section 80G, or 80 GGA, or 35 AC. The individual organization shall apply in writing to the Electricity Department along with any of the above certificate for getting considered for the tariff in the Domestic Category.

The Halls or Gardens/ Lawns or any portion of the premises listed under Para 2 above are let out for consideration or used for Commercial activities at any time shall be Charged at Commercial Rate of Electricity Tariff.

**NOTES:**

- i. Where a portion of the dwelling is used for the mixed load purposes the connection shall be billed for the purpose for which the tariffs is higher.
- ii. Hostels shall be considered as one unit and billed under domestic supply tariff without compounding.
- iii. Private education institutions not recognized by the Chandigarh Administration shall be billed under Non Domestic Tariff.
- iv. STD/PCO, shops attached to Religious Institutions will be billed under Non-Domestic Tariff.
- v. In case a room or a part of residential house is utilized by a teacher for imparting tuition work, self-occupied handicapped persons operating from their residences, cooking classes taken by house ladies, beauty parlour run by house ladies, ladies doing tailoring work etc. shall be covered under domestic tariff.

**CHARACTER OF SERVICE**

AC, 50 cycles, Single phase 230 volts or three phase 400 volts or 11 Kilo volts.

For loads up to 5 KW supply shall be given on single phase 230 volts and above 5 KW up to 60 KW supply shall be given on three phase 400 volts. For loads above 60 KW,

supply shall be given on 11 KV and a separate transformer of adequate capacity shall be installed at consumers cost as per Electricity Supply Code Regulations notified by JERC. In case of consumers where the metering is being done on low voltage side of the transformer instead of high voltage side, the consumption should be computed by adding 3% extra on account of transformation/ losses. This arrangement shall be continued for a maximum of one year within which metering shall be shifted to HT(11KV) side of the transformers.

## **2. COMMERCIAL / NON RESIDENTIAL SUPPLY (NRS)**

### **APPLICABILITY**

This schedule shall apply to all consumers, using electrical energy for light, fans appliances like pumping sets, central air conditioning plant, lift ,welding set, small lathe, electric drill, heater, battery charger, embroidery machine, printing press, ice candy, dry cleaning machines, power press, small motors in non-residential premises such as defined below:

- a) Hostels (other than those recognized/aided institutions of Chandigarh Administration)
- b) Pvt Schools/colleges, coaching institutes, research institutes, (Other than those run by the Chandigarh Administration),
- c) Auditoriums, Hospitals, clinics, dispensaries, nursing homes / diagnostic centers other than those run by the Chandigarh Administration.
- d) Railways (other than traction)
- e) Hotels, restaurants, guest houses, boarding / lodging houses, marriage houses
- f) Cinemas
- g) Banks
- h) Petrol pumps.
- i) Government / Public Sector offices and undertakings

- j) Public halls, auditoriums, exhibitions, theatres, circus, cinemas etc.
- k) All other establishments, i.e., shops, chemists, tailors, washing, dyeing etc. which do not come under the Factories Act.
- l) Cattle farms, fisheries, piggeries, poultry farms, floriculture, horticulture, plant nursery Farm houses being used for commercial activity.
- m) Ice-cream parlors, bars, coffee houses etc.
- n) Any other category of commercial consumers not specified/covered in any other category in this Schedule.

NRS supply shall also be applicable to multi consumer complex including commercial complexes as defined in the Electricity Supply Code Regulations notified by the JERC. No separate circuit/connection for power load including pumping set/central air conditioning plant, lifts etc. is permitted.

#### **CHARACTER OF SERVICE**

AC, 50 cycles, single phase at 230 Volts or 3 Phase at 400 Volts or 11 Kilo volts

For loads up to 5 KW, supply shall be given on single phase 230 volts and above 5 KW up to 30 KW, supply shall be given on 3 phase 400 volts. For loads above 30KW, supply shall be given on 11 KV in case of multi consumer complex including commercial complex and in other cases for load above 60 KW the supply shall be on 11 KV. In case of consumers where metering is done on low voltage side of the transformer instead of high voltage side, the consumption should be computed by adding 3% extra on account of transformation losses.

### **3. LARGE INDUSTRIAL POWER SUPPLY (LS)**

#### **APPLICABILITY**

The schedule shall apply for consumers having industrial connected load above 100kW. Their contract demand shall not be less than 100 kVA.

No consumers shall increase his connected load without prior approval of the department. The consumer availing supply at high tension shall indicate rated capacity of all the step down transformers installed in his premises and shall not



increase the capacity of such step down transformers without prior approval of the department.

**CHARACTER OF SERVICE**

AC, 50 Cycles, 3 phase 11 kV supply for loads above 100 kW

Supply can be given at 33/66/220kV depending on quantum/type of load and contract demand and availability of bus voltage and transformer winding capacity at the feeding substation wherever possible at the discretion of supplier.

For arc furnace loads and other loads of equally violent fluctuating nature, voltage of supply will be 33kV and above depending upon availability of bus voltage and transformer winding capacity at the feeding substation wherever possible, at the discretion of supplier.

**NOTE**

- i. The above tariff covers supply at 11 kV. Surcharge at 20% on the tariff shall be leviable for all the existing consumers which are being given supply at 400 volts. A consumer getting supply at 33 kV and above will get a rebate of 3%.
- ii. Surcharge at 17.5% on the tariff shall be leviable for all the arc furnace consumers which are being given supply at 11 kV. This surcharge at 17.5% shall also be leviable on other industrial consumers having contract demand exceeding 5000 kVA and running at 11kV.
- iii. In case of steel rolling mills having supply at 400 volts, an additional surcharge of 5% shall be leviable.
- iv. In case of HT consumers (11kV and above) where maximum demand and energy consumption is recorded on lower voltage side of consumer transformer instead of high voltage side, maximum demand and energy consumption for billing purpose should be computed by adding 3% extra on account of transformation/cables losses. However this agreement shall in no case continue for more than three months and meter shall be installed on the HT side of the transformer within the said period including such existing connection.
- v. For new connections, all metering will be on HT side only.

**POINT OF SUPPLY**

The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.

**CONTRACT DEMAND**

Contract demand is the load **kW, kVA** or HP, as the case may be agreed to be supplied by the licenses and contracted by the consumer and specified in the agreement. If the consumer in a month exceeds the contract demand, such excess shall be charged at an additional rate of Rs 250/kVA.

**4. MEDIUM INDUSTRIAL POWER SUPPLY (MS)**

**APPLICABILITY**

This tariff schedule shall apply to all industrial power supply consumers having connected load ranging from 21 kW to 100 kW.

**CHARACTER OF SERVICE**

AC, 50 cycles, 3 phase, 400 volts, or at 11 kV for load above 60 KW.

**POINT OF SUPPLY**

The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.

**5. SMALL INDUSTRIAL POWER SUPPLY (SP)**

**APPLICABILITY**

This schedule apply to small power industries with connected load not exceeding 20 KW (26BHP) in Urban and rural areas.

**CHARACTER OF SERVICE**

AC, 50 cycles, single phase 230 volts, or 3 phase, 400 volts.

**POINT OF SUPPLY**

The above mentioned tariff is based on the supply being given at a single delivery and metering point and at a single voltage.

## **6. AGRICULTURAL PUMPING SUPPLY (AR)**

### **APPLICABILITY**

This schedule shall apply to all consumers for use of electrical energy for irrigation pumping load upto 20 kW (26 BHP). Supply for loads above 26 BHP/20 KW shall be charged in accordance with relevant industrial tariff (Govt. Tubewells meant for water supply are covered under relevant Industrial Tariff)

### **CHARACTER OF SERVICE**

AC, 50 Cycles, three phase, 400 volts, Single Phase at 230 volts.

### **NOTE**

- a) Pumping sets shall be ISI marked. The responsibility for ensuring installation of ISI marked pumping sets as well as shunt capacitors shall be that of JE concerned, who shall verify the same at the time of verification of test reports before release of connection.
- b) Supply for agriculture/Irrigation pump set, at one point, may also be given to a registered co-operative society or to a group of farmers recognized by the competent authority.
- c) An agriculture consumer, if he so desires, may shift the location within his premises of his connection, with the approval of the competent authority, after payment of appropriate charges.

### **POINT OF SUPPLY**

The above mentioned tariff is based on the supply being given through a single delivery and metering point and at a single voltage.

## **7. PUBLIC LIGHTING (PL)**

### **APPLICABILITY**

This tariff schedule shall apply for use of Public Lighting system including signaling system, road and park lighting managed by municipal corporation, panchayats, institutions(at the discretion of the supplier)etc.

The tariff schedule shall also apply for use of electricity by street lights managed/outsourced to an external agency and advertisement boards, sign boards, bill boards, signages etc., (apart from the advertisement boards installed on commercial establishment & charged under commercial tariff).

**CHARACTER OF SERVICE**

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.

**8. BULK SUPPLY (BS)**

**APPLICABILITY**

This tariff schedule shall apply to general or mixed loads exceeding 10 kW to MES, Defense establishments, Railways, Central PWD, Institutions, Hospitals, Departmental Colonies and other similar establishments where further distribution is to be done by the consumer. Above schedule shall not be applicable, if 50 % or more of the total sanctioned load is motive/ manufacturing load.

**CHARACTER OF SERVICE**

AC, 50 cycles, three phase, 400 volts or 11 kV or higher voltage at the option of the department. Loads exceeding 60 kW shall be released on HT only.

**9. TEMPORARY SUPPLY**

**APPLICABILITY**

Available to any person requiring power supply for a purpose temporary in nature for period upto three months, which may be extended up to a maximum period of two years after completion of formalities.

**CHARACTER OF SERVICE**

AC, 50 cycles, Single phase at 230 Volts or three phase at 400 Volts.