

TARIFF ORDER
of
CSPDCL for FY 2015-16
and
Final True-up for FY 2013-14
of
CSPGCL, CSPTCL, SLDC & CSPDCL

Chhattisgarh State Power Generation Company Limited

[Petition No. 03 of 2015]

Chhattisgarh State Power Transmission Company Limited

[Petition No. 02 of 2015]

Chhattisgarh State Load Dispatch Centre, CSPTCL

[Petition No. 04 of 2015]

Chhattisgarh State Power Distribution Company Limited

[Petition No. 01 of 2015]

CHHATTISGARH STATE
ELECTRICITY REGULATORY COMMISSION, RAIPUR

23rd May, 2015

**CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
RAIPUR**



Chhattisgarh State Power Distribution Co. Ltd.		P. No. 01/2015(T)
Chhattisgarh State Power Transmission Co. Ltd		P. No. 02/2015(T)
Chhattisgarh State Power Generation Co. Ltd.		P. No. 03/2015(T)
Chhattisgarh State Load Dispatch Centre		P. No. 04/2015(T)

Present: Narayan Singh, Chairman

Vinod Shrivastava, Member

In the matter of –

1. Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for final true up for 2013-14, revision of ARR and determination of retail tariff for FY 2015-16;
2. Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for final true up for FY 2013-14;
3. Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for final true up for FY 2013-14 for thermal plants and Hydro Power Plant & ARR for FY 2015-16 of 1x500 MW Korba West TPP;
4. Chhattisgarh State Load Dispatch Centre (SLDC) for final true up for FY 2013-14.

ORDER

(Passed on 23.05.2015)

- 1.** As per provisions of the Electricity Act, 2003 (hereinafter referred as 'the Act') and the Tariff Policy, the Commission has notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2012 (hereinafter referred as 'MYT Regulations, 2012') for determination of tariff for the generating company and licensees. The Commission has also notified the Chhattisgarh State Electricity Regulatory Commission (Fees and Charges of State Load Despatch Centre and other related matters) Regulations, 2012 (hereinafter referred as 'SLDC Fee and Charges Regulations, 2012') for determination of fees and charges of SLDC.
- 2.** This Order is passed in respect of the Petitions filed by the (i) Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for approval of final true up for 2013-14 and revision of ARR for FY 2015-16, (ii) Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for approval of final true up for FY 2013-14, (iii) Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for approval of final true up for FY 2013-14 for thermal plants and Hydro Power Plant and determination of ARR for FY 2015-16 of 1x500 MW Korba West TPP, and (iv) Chhattisgarh State Load Dispatch Centre (SLDC) for approval of final true up for FY 2013-14.
- 3.** This Order is passed under the provisions of Section 32(3), Section 45 and 62 read with Section 86(1) of the Act. This combined Order is passed by the Commission on the four separate Petitions filed by CSPDCL, CSPTCL, CSPGCL, and SLDC, after having considered all the information and documents filed with the said Petitions, the information submitted to the Commission after technical validation, and after having heard the applicant Companies, the consumers, their representatives and other stakeholders in the hearing held by the Commission.
- 4.** The Petitions submitted by CSPDCL, CSPTCL, CSPGCL, and SLDC were found to be deficient in information to be provided as per the requirements specified in the "MYT Regulations, 2012" and "SLDC Fee and Charges Regulations, 2012" for which the Commission issued a letter highlighting the

data gaps/shortcomings in the Petitions and the response for the same was submitted by the Companies and SLDC. Subsequently, the Petitions were registered for CSPDCL (Petition No. 1 of 2015), CSPTCL (Petition No. 2 of 2015), CSPGCL (Petition No. 3 of 2015), and SLDC (Petition No. 4 of 2015) on 01/01/2015.

5. The Petitions were made available on the website of the Commission as well as the Petitioners and were also made available at the offices of the Petitioners. A public notice along with the gist of the Petitions was also published in the newspapers. Suggestions/objections were invited as per the procedure laid down in the Regulations. Further, the Commission conducted a hearing at Raipur on the Petitions on 10.04.2015. The Commission also convened a meeting with Members of the State Advisory Committee for seeking their valuable suggestions and comments. Taking into account all the suggestions/objections and after performing necessary due diligence on each of the issues, the Commission has finalised its views. The summary of the Commission's views in the matter of the said Petitions is outlined in the subsequent paragraphs.
6. In the Multi-Year Tariff (MYT) Order passed on 12.07.2013, the Commission had approved the ARR for the Control Period from FY 2013-14 to FY 2015-16 for CSPGCL, CSPTCL and CSPDCL. In the Tariff Order dated 09.07.2013, the Commission had approved the ARR for SLDC for the Control Period from FY 2013-14 to FY 2015-16.
7. As per MYT Regulations, 2012, no revision in the ARR for FY 2015-16 is permitted for CSPGCL and CSPTCL while for CSPDCL; only the power purchase cost is allowed to be revised based on latest available projections pertaining to the quantum and cost of power. Accordingly, the Commission has undertaken the final true up for FY 2013-14 for CSPGCL, CSPTCL, CSPDCL and SLDC, and has revised the ARR for CSPDCL for FY 2015-16.
8. The provisions of the MYT Regulations, 2012 have been considered for final True up of FY 2013-14 and determination of Tariff for FY 2015-16. These Regulations embody the principles for determination of tariff enunciated in the Act. In passing this Order, the Commission has also been guided by the National Electricity Policy (NEP), 2005 and Tariff Policy, as mandated under the provisions of the Act. The Commission has taken care to ensure that the revenue

requirements of the Companies are based on reasonable and prudent expenditure required to serve the consumers efficiently and effectively.

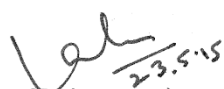
9. For CSPGCL, CSPTCL, and SLDC, based on the Final True up of FY 2013-14, the revenue deficit/(surplus) along with carrying/(holding) cost has been considered in the ARR of CSPDCL for FY 2015-16. The deficit for CSPGCL has been approved as Rs. 188 Crore, and surplus for CSPTCL and SLDC has been approved as Rs. 84 Crore and Rs. 2 crore, respectively. Similarly, for CSPDCL, based on the Final True up of FY 2013-14, the revenue gap along with carrying cost, amounting to Rs. 735 crore, has been considered in the ARR of CSPDCL for FY 2015-16.
10. For CSPGCL, the ARR of FY 2015-16 for various existing plants has already been approved in MYT Order dated 12.07.2013, which has been retained, in accordance with the MYT Regulations, 2012. For Korba West TPP, as the capital cost is pending for approval by the Commission in a separate proceeding, and as no tariff has been determined for FY 2015-16 yet, the Commission has approved revised provisional tariff for FY 2015-16 in this Order. For SLDC, ARR of FY 2015-16 is same as approved in last Order dated 09.07.2013. For CSPTCL, the ARR of FY 2015-16 has already been approved as Rs. 834.92 Crore in the MYT Order dated 12.07.2013, which has been retained in accordance with the MYT Regulations, 2012. Based on the same, the Transmission Charge for FY 2015-16 has been calculated and the same is prescribed in the Tariff Schedule chapter of this Order. Transmission losses at the rate of 4.20% for the energy scheduled for transmission at the point or points of injection shall be recoverable from open access customers.
11. CSPDCL had projected the Sales for FY 2015-16 at 17270 MU considering actual sales for FY 2013-14 for each consumer category as the base. Further, CSPDCL has projected its Gross Energy Requirement based upon its sales projection for FY 2015-16. CSPDCL has projected the gross power purchase quantum of 31,742 MU at an average rate of Rs. 2.68 per unit resulting into total power purchase cost of Rs. 8534.13 Crore, which is excluding transmission charges. As the tariff categories had been rationalised in FY 2014-15 and as FY 2014-15 has been completed, the Commission obtained the actual category-wise 11 month sales for FY 2014-15 from CSPDCL, in order to ensure more accurate projection of sales for FY 2015-16. The Commission has approved the projection of sales for FY 2015-16 at 18735 MU, by applying appropriate

growth rates on the estimated sales in FY 2014-15. Based on the same, the Commission has approved the gross power purchase quantum of 27904 MU and the power purchase cost of Rs. 7563.15 Crore at an average rate of Rs. 2.71 per unit, which is excluding transmission charges. The Commission has not approved any changes in the ARR for FY 2015-16 other than power purchase cost and retained the same as approved in MYT Order dated 12.07.2013.

- 12.** It is noted that the State Government has issued a subsidy of Rs. 450 Crore to bridge a part of the revenue gap for FY 2015-16.
- 13.** CSPDCL, in its Petition, has sought approval for standalone deficit of Rs. 1014 Crore for FY 2015-16. However, the cumulative deficit sought by CSPDCL works out to Rs. 2419 Crore for FY 2015-16 after including the revenue deficit and carrying cost based on final true up for FY 2013-14, to the standalone deficit for FY 2015-16.
- 14.** The Commission after prudence check and scrutiny has arrived at a cumulative revenue gap of Rs. 1192 Crore for FY 2015-16 after adjusting the cumulative gap/(surplus) of CSPGCL, CSPTCL, and SLDC and the subsidy from the State Government. Based on the above, the Commission has approved the revised Tariff Schedule. The tariffs have been determined such that the estimated revenue recovery at existing tariff for 2 months and at revised tariff for 10 months would be sufficient to meet the cumulative revenue requirement for CSPDCL for FY 2015-16. The Commission has also complied with the direction of the Hon'ble Appellate Tribunal given in Appeal No. 173 of 2012 dated 18.12.2013 where it was directed to estimate annual revenue based on the number of months for which the existing and revised tariff is applicable and also not to create any regulatory asset in normal condition.
- 15.** As regards rationalisation of tariff categories, the Commission has made the following changes in this Order as compared to the tariff categories approved in the previous Tariff Order:
 - i. The tariff of all consumer categories has been increased in order to recover the approved revenue gap.
 - ii. The tariffs for all consumer categories have been increased in such a manner that the cross-subsidies are reduced gradually, and the tariffs for most of the consumer categories is within the band of $\pm 20\%$ of Average Cost of Supply, as stipulated by the Tariff Policy notified by the Government of India.

- iii. For LV-1 domestic category, the Commission has split the consumption slab of 0-200 units by introducing two new consumption slabs, viz., 0-40 units per month, and 41-200 units per month, and the tariff for the 0-40 units per month has been increased at a lower rate. However, due to the telescopic nature of the tariff structure for Domestic Category, all the consumers in the Domestic Category including the consumers having higher consumption, will benefit from the lower tariff in the lower consumption slabs.
- iv. The Commission has introduced a new tariff category LV-7 and HV-8 for IT Industries units receiving supply at HV voltage and LV voltage and having minimum Contract Demand of 50 kW, and the tariff for this category has been kept equal to the Average Cost of Supply.
- v. The Commission has split the existing tariff category HV-4 into two categories, viz., HV-4 (Residential, Irrigation & Agriculture Allied Activities) and HV- 5 (Public Water Works). As a result, the existing HV-5 and HV-6 categories have been renamed as HV-6 and HV-7, respectively.
- vi. In continuation of the Commission's philosophy of moving from kWh based tariff to kVAh based tariff in order to improve the power factor and hence, voltage profile of the system, the Commission has introduced kVAh based energy charges for the remaining HT categories including the newly created categories, i.e., HV-1 (Steel Industry), HV-2 (Mines, Cement, Other Industries and General Purpose Non-Industries), HV-3 (Low Load Factor Industries), HV-4 (Residential, Irrigation & Agriculture Allied Activities) and HV-5 (Public Water Works).
- vii. The Commission has merged the two existing sub-categories of industries receiving supply at 33 kV and industries receiving supply at 11 kV, for the HV-1, HV-2, HV-3, HV-4, and HV-5 categories as defined in this Order.
- viii. Since, kVAh billing has been introduced for all HV categories, the Power Factor Incentive and Surcharge has been discontinued for these categories.
- ix. The peak hour charges for the energy consumed during peak hours, i.e., 6 p.m. to 11 p.m., introduced in the previous Tariff Order 2014-15 for all LV-2 (Non-Domestic) and LV-5 (LT Industrial) consumers having a connected/contracted load of 50 HP or 37 kW and above, has been withdrawn based on representation received from the consumers.

16. For ready reference, the Tariff Schedule applicable in reference to this Order is appended herewith as **Schedule**.
17. The Order will be applicable from 1st June, 2015 and will remain in force till 31.03.2016 or till the issue of next Tariff Order, whichever is later. The Commission directs the Companies to take appropriate steps to implement the Tariff Order.


(Vinod Shrivastava)
MEMBER


(Narayan Singh)
CHAIRMAN



CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION

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Chhattisgarh State Power Distribution Co. Ltd.		P. No. 01/2015(T)
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Chhattisgarh State Power Generation Co. Ltd.		P. No. 03/2015(T)
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Present: Narayan Singh, Chairman

Vinod Shrivastava, Member

In the matter of –

- (i) Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) for final true up for 2013-14, revision of ARR and determination of retail tariff for FY 2015-16;
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- (iii) Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for final true up for FY 2013-14 for thermal plants and Hydro Power Plant & ARR for FY 2015-16 of 1x500 MW Korba West TPP;
- (iv) Chhattisgarh State Load Dispatch Centre (SLDC) for final true up for FY 2013-14.

The Commission has passed order in the above petitions on 23/05/2015. In the order, some typographical errors have been found on the face of record. Hence, commission hereby makes following corrections in the above order.

CORRIGENDUM ORDER

(Dated 28.05.2015)

1. At page 6, in para no. 1.1.1.7 i.e. tariff for LV-7, Information Technology Industries, the word “Minimum Fixed Charge” appearing in table and Note shall read as “Minimum Charge”.
2. At page 15, in para no. 1.1.4.1, Conditions mentioned for Option 1 shall be deleted.

3. At page – 16, after the table under Option 2 the words “Conditions for Option 2” shall be read as “Note”.
4. At page – 16, in Sr. No. I, the words “Option 2” shall be read as “Option 1 and Option 2”.
5. At page – 16, in Sr. No. II, the words “with 0.9 PF” appearing in the paragraph shall be deleted.
6. At page – 16, paragraph mentioned under Sr No. 4 i.e. Determination of Demand shall be deleted.
7. At page – 16, paragraph mentioned under Sr No. 5 shall be renumbered as Sr. No 4.
8. At page 17, in sub-para 1 of para no. 1.1.4.3 i. e. tariff for HV-3 Low Load Factor Industries, the words “HV-1, HV-2, and HV-3” shall be read as “HV-1 and HV-2”
9. At page no 22, in second line, the word “HV-5” shall be read as “HV-6”.
10. At page no 23, in para no. 1.1.4.8 i.e. tariff for HV-8 Information Technology Industries, the word “Minimum Fixed Charge” appearing in table and Note shall be read as Minimum Charge”.
11. At page no 23, in sub-para 1 of para no. 1.1.4.9, the word “HV-5” shall be read as “HV-6”.
12. At page no 24, “note no. ix” of para no. 1.1.4.9, shall be deleted
13. At page no 25, in second line of point i, the word “HV-3” shall be read as “and HV-7”
14. At page no 25, in second line of point iii, the phrase “one and half/two times of the normal tariff” shall be read as “one and half/two times (as per methodology specified in Para “Additional Charges for Exceeding Contract Demand” of the Terms and Conditions of EHV and HV Tariff) of the normal tariff”.
15. At page no 25 to 30, serial number under “Terms and conditions of EHV and HV Tariff” shall be renumbered.


(Vinod Shrivastava)
MEMBER


(Narayan Singh)
CHAIRMAN

LIST OF ABBREVIATIONS

Abbreviation	Description
A&G	Administrative and General
ATE	Appellate Tribunal for Electricity
ARR	Aggregate/ Annual Revenue Requirement
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
COD	Date of Commercial Operation
CSEB	Chhattisgarh State Electricity Board
CSERC	Chhattisgarh State Electricity Regulatory Commission
CSPDCL	Chhattisgarh State Power Distribution Company Limited
CSPGCL	Chhattisgarh State Power Generation Company
CSPHCL	Chhattisgarh State Power Holding Company Limited
CSPTCL	Chhattisgarh State Power Transmission Company Limited
CSPTTrCL	Chhattisgarh State Power Trading Company Limited
CWIP	Capital Work in Progress
DPS	Delayed Payment Surcharge
EMS	Energy Management System
FY	Financial Year
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GoCG	Government of Chhattisgarh
GoI	Government of India
HT	High Tension
kCal	Kilocalorie
kg	Kilogram
kV	Kilovolt
kVA	Kilovolt-ampere
kVAh	Kilovolt-ampere-hour
kW	Kilowatt
kWh	Kilowatt-hour
MAT	Minimum Alternative Tax
ml	Millilitre
MMC	Monthly Minimum Charges

Abbreviation	Description
MT	Million Tonnes
MU	Million Units
MYT	Multi Year Tariff
NCE	Non-Conventional Sources of Energy
NTI	Non-Tariff Income
O&M	Operations and Maintenance
PF	Power Factor
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RoE	Return on Equity
Rs	Rupees
SBI	State Bank of India
SCADA	Supervisory Control and data Acquisition
SERC	State Electricity Regulatory Commission
SHP	Small Hydro Plant
SLDC	State Load Dispatch Centre
SLM	Straight Line Method
T&D Loss	Transmission and Distribution Loss
UI	Unscheduled Interchange

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1. BACKGROUND AND BRIEF HISTORY

1.1 BACKGROUND

The process of restructuring of the erstwhile Chhattisgarh State Electricity Board (CSEB) was initiated by the State Government in pursuance of the Provisions of part XIII of the Electricity Act, 2003. The Government of Chhattisgarh (GoCG) vide notification No. 1-8/2008/13/1 dated December 19, 2008, issued the CSEB Transfer Scheme Rules, 2008 with effect from January 1, 2009. As per the Rules, the erstwhile CSEB was unbundled into five independent Companies, i.e., Chhattisgarh State Power Generation Company Limited (CSPGCL), Chhattisgarh State Power Transmission Company Limited (CSPTCL), Chhattisgarh State Power Distribution Company Limited (CSPDCL), Chhattisgarh State Power Trading Company Limited (CSPTCL), and Chhattisgarh State Power Holding Company Limited (CSPHCL). The assets and liabilities of the erstwhile CSEB have been allocated to the successor Companies w.e.f. January 1, 2009 according to the provisions of the CSEB Transfer Scheme Rules, 2010.

1.2 THE ELECTRICITY ACT, 2003, TARIFF POLICY AND REGULATIONS

Section 61 of the Electricity Act, 2003 (herein after referred as the EA, 2003 or the Act) stipulates the guiding principles for determination of the tariff by the Commission and mandates that the tariff should progressively reflect cost of supply of electricity, reduce cross subsidy, safeguard consumers' interest and recover the cost of electricity in a reasonable manner. This Section also stipulates that the Commission while framing the Tariff Regulations shall be guided by the principles and methodologies specified by the Central Electricity Regulatory Commission for determination of the tariff applicable to generating companies and transmission licensees.

Section 62 of the EA, 2003 stipulates that the Commission shall determine the tariff for:

- Supply of electricity by a Generating Company to a Distribution Licensee;
- Transmission of electricity;
- Wheeling of electricity; and
- Retail sale of electricity.

The Tariff Policy notified by the Government of India in January 2006, provides the framework to balance the conflicting objectives of attracting investments to ensure availability of quality power and protecting the interest of consumers by ensuring that the electricity tariffs are affordable.

The Commission notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2012 (hereinafter referred to as CSERC MYT Regulations, 2012) applicable for the Control Period from FY 2013-14 to FY 2015-16.

1.3 MYT ORDER FOR FY 2013-14 TO FY 2015-16

The Commission vide order dated July 12, 2013, approved the Multi-Year Aggregate Revenue Requirement (ARR) for the period FY 2013-14 to FY 2015-16 for CSPGCL, CSPTCL and CSPDCL along with Generation Tariff, Transmission Tariff, Wheeling and Retail Tariff for FY 2013-14 for CSPDCL.

1.4 PROCEDURAL HISTORY

Regulation 5.7(b) of the CSERC MYT Regulations, 2012 specifies that after the first year of the control period and onwards, the yearly petition shall comprise of true up of the preceding year for generation, transmission, distribution wheeling and retail supply business along with retail tariff proposal for the ensuing year.

CSPDCL filed the petition on December 1, 2014 for approval of true up for FY 2013-14 and revised ARR and tariff for FY 2015-16 and it was registered as 01/2015(T). CSPTCL filed the Petition for approval of final true up for FY 2013-14 and Transmission Tariff for FY 2015-16 on December 1, 2014, registered as 02/2015(T). CSPGCL filed the petition for approval of true up for FY 2013-14 and ARR for 1x500 MW Korba West TPP for FY 2015-16 on December 2, 2014, registered as 03/2015(T). The Chhattisgarh State Load Despatch Centre (SLDC) filed the petition for approval of final true up for FY 2013-14, provisional true up for FY 2014-15, and ARR for FY 2015-16 on December 3, 2014, registered as 04/2015(T).

1.5 ADMISSION OF THE PETITION AND HEARING PROCESS

The Commission conducted preliminary analysis of the petitions submitted by CSPGCL, CSPTCL, CSPDCL and SLDC and found that the petitions were not complete in material particulars. Therefore, additional data and clarifications on the petitions were sought and the replies were submitted by the petitioners.

The Commission admitted the petitions filed by CSPGCL, CSPTCL, CSPDCL and SLDC on 01 Jan 2015.

The Commission directed the companies to publish the abridged version of the petition in Hindi and English newspapers for inviting comments / objections / suggestions from all the stakeholders. The petitions were made available on the website of the Commission as well as of the petitioners' websites. As required under Clause 21 of the CSERC (Details to be furnished by licensee etc.) Regulations, 2004, notices inviting suggestions /comments/objections from the stakeholders on the above proposals were published in the leading newspapers of the State on 7 Feb 2015 and 8 Feb 2015 by petitioners. A period of twenty one (21) days was given for submission of written objections and suggestions by the public. The Commission also directed the companies to submit written replies to the Commission with copies endorsed to the objectors.

In order to have better clarity on the data submitted by the Petitioners and to remove inconsistency in the data, Technical Validation Sessions (TVS) were held on 25 Feb 2015, 26 Feb 2015 and 27 Feb 2015 with the petitioners. During the TVS, additional information required for processing of the petitions was sought from the petitioners. The petitioners submitted the additional information sought in the TVS.

Notices under Section 94(2) of the Act were published in the following newspapers of the State for hearings:

Table 1-1: List of News Papers in which Notice of Hearing was published

Newspaper Name	Date of Notice Published
Hitvada (Raipur Edition), Central Chronicle (Raipur Edition), Navbharat (Raipur and Bilaspur Edition), Patrika (Raipur Edition), Dandkaranya Samachar (Jagdalpur Edition), Haribhoomi (Raipur and Bilaspur Edition), Dainik Bhaskar (Raipur and Bilaspur Edition), Nai Duniya (Raipur Edition), Desh Bandhu (Raipur Edition), AmbikaVani (Ambikapur Edition)	April 1, 2015

The Commission received objections and suggestions from stakeholders on the petitions filed by CSPGCL, CSPTCL, CSPDCL and SLDC. The list of persons who filed the written submissions is annexed as **Annexure 1**. The issues raised by different

consumers along with the response of petitioners’ and views of the Commission are elaborated in Chapter 2 of this Order.

Hearing was held on April 10, 2015 at Chhattisgarh State Power Holding Company’s, “Krida Bhavan”, Daganiya, Raipur. The list of persons who participated in the hearing is annexed as **Annexure 2**. The Commission has ensured that the due process as contemplated under the law to ensure transparency and public participation was followed at every stage and adequate opportunity was given to all the persons concerned to file their say in the matter.

1.6 STATE ADVISORY COMMITTEE MEETING

The Commission also sent the copy of the abridged Hindi and English version of the petitions to all the members of the State Advisory Committee of the Commission on February 11, 2015 for their comments.

A special meeting of the State Advisory Committee, constituted under Section 87 of the Act, was convened on March 9, 2015 to discuss the petitions and seek advice of the Committee. The Companies gave a presentation in the meeting on the salient features of their petitions. Various aspects of the tariff application were discussed by the Members of the Committee in the meeting and following suggestions were given for consideration of the Commission related to tariff matters:

- i. The Commission may continue with the same approach as adopted in previous Orders on the issues which are pending in superior Courts.
- ii. CSPDCL may be directed to conduct the separate audit of VCA charges and publish the details of VCA on website.
- iii. In the absence of 100% metering and billing, the actual losses in the system cannot be ascertained and hence the claim of incentive for achieving the loss level lower than the target based on assessment may not be allowed.
- iv. While projecting the ARR for FY 2015-16, only the sales and power purchase figures shall be revised as all other components have been already approved by the Commission in MYT Order.
- v. As per CSERC MYT Regulations, 2012, the distribution licensee is required to submit the retail tariff proposal of each consumer category, but the licensee is violating the provisions of Regulations consecutively of the third time. In the absence of retail tariff proposal, the consumers are not able to submit their comments/views appropriately and which leads to confusion and uncertainty.

- vi. Either TOD Tariff shall be introduced for LT Industries as well or the peak hour charge introduced last year shall be abolished.
- vii. Distribution Licensees should become self sustainable and should not depend upon grant/subsidy. Further, all efforts should be made by Distribution Licensee to collect the arrears and pending dues.
- viii. Meter Rent for all the consumer categories should be abolished.
- ix. kVAH billing shall be introduced only after the proper study report as directed by the Commission in the previous Order.

1.7 LAYOUT OF THE ORDER

This Order is organised into following chapters

- **Chapter 1** - Background and brief history
- **Chapter 2** - Hearing process, including the comments made by various stakeholders, the petitioners' responses and views of the Commission
- **Chapter 3** - Approach of this Order
- **Chapter 4** - Final True up of ARR for CSPGCL for FY 2013-14 and determination of ARR for Korba West TPP (Extn.) and Marwa TPS For FY 2015-16
- **Chapter 5** - Final true up for FY 2013-14 and determination of transmission tariff for FY 2015-16 for CSPTCL.
- **Chapter 6** - Final true up for SLDC for FY 2013-14
- **Chapter 7** - Final true up for FY 2013-14 and revised ARR and retail tariff for FY 2015-16 for CSPDCL
- **Chapter 8** - Tariff Principles and Tariff Design.
- **Chapter 9** - Tariff Schedule for FY 2015-16
- **Chapter 10** - Directives to the State Power Companies and SLDC.

The order contains the following Annexure, which are an integral part of the tariff order.

- i. Annexure 1 – List of persons who filed written submissions;
- ii. Annexure 2 – List of persons who presented their views during the hearing on 10th April, 2015;

2. HEARING PROCESS, INCLUDING THE COMMENTS MADE BY VARIOUS STAKEHOLDERS, THE PETITIONERS' RESPONSES AND VIEWS OF THE COMMISSION

2.1 COMMON ISSUES

2.1.1 Discrepancies in figures

Shri Shyam Kabra, representative of Urla Industries Association has submitted that the following discrepancies in figures have been observed from the Petitions filed by CSPGCL, CSPTCL and CSPDCL:

- a) The net generation for FY 2013-14 as submitted by CSPGCL is 10053.05 MU while the power purchase quantum for FY 2013-14 as submitted by CSPDCL is 11833.22 MU.
- b) The revenue from sale of power for CSPGCL for FY 2013-14 as per its audited accounts is Rs. 2505 Crore while CSPDCL has submitted Rs. 2587 Crore as the payment made to CSPGCL.
- c) The net energy received at the Distribution periphery at 33 kV level as submitted by CSPDCL for FY 2013-14 is 17220 MU while the energy output to 33 kV level as submitted by CSPTCL is 16692 MU.
- d) The actual sales to EHV consumers for FY 2013-14 as submitted by CSPDCL is 2154 MU while the same has been submitted as 1843 MU by CSPTCL, which owns the EHV lines.
- e) The inter-State Transmission Charges for FY 2013-14 as submitted by CSPDCL is Rs. 531.69 Crore on Page 22 of the Petition and Rs. 634.90 Crore on Page 21 of the Petition while the revenue billed as submitted by CSPTCL for FY 2013-14 is Rs. 577.80 Crore.

Petitioner's Reply

CSPGCL submitted that its Petition for true up for FY 2013-14 covers only the thermal power plants and Hasdeo Bango hydro power plant, in accordance with the

CSERC MYT Regulations, 2012. The power purchase quantum as submitted by CSPDCL is inclusive of the energy procured from the renewable energy plants owned by CSPGCL. CSPGCL submitted that the necessary clarifications in this regard have been submitted to the Commission.

CSPTCL submitted that the variation in energy input at 33 kV level is on account of the energy injected by the generating stations connected at 33 kV level, which has been considered by CSPDCL in its computations of energy balance. CSPTCL submitted that the variation in actual sales to EHV consumers is on account of energy delivered to Bhilai Steel Plant (BSP), which had been included in the submissions of CSPDCL.

CSPDCL submitted that the power purchase quantum for FY 2013-14 from CSPGCL as submitted in the Petition is inclusive of energy from stations, which are not regulated under the CSERC MYT Regulations, 2012. Further, the power purchase cost for FY 2013-14 for the power purchase quantum from CSPGCL is inclusive of electricity duty, cess and water charges paid to CSPGCL, which do not form part of revenue from sale of power for CSPGCL but form the part of power purchase cost for CSPDCL.

CSPDCL submitted that the total energy available at the 33 kV level is inclusive of the energy output from the transmission system as well as the energy injected by the generators connected at 33 kV level.

CSPDCL submitted that the retail sale of electricity is carried out only by the Distribution Company and the EHV sales for FY 2013-14 as submitted by it are the actual figures. CSPDCL added that the details of EHV consumer-wise sales and meter readings are available for verification, if required.

CSPDCL submitted that the intra-State Transmission Charges of CSPDCL and the revenue of CSPTCL cannot be compared, as CSPDCL is not the only customer of CSPTCL.

Commission's view

The Commission held a common Technical Validation Session with CSPGCL, CSPTCL and CSPDCL for reconciling the figures of quantum and cost of power purchase shown by the Petitioners in the true up for FY 2013-14, and sought detailed explanation for the differences in amounts reported in the audited accounts and respective Petitions. Based on the submissions and explanations received from the Petitioners, the Commission is of the view that there is no discrepancy in the figures reported by the Petitioners, and the differences are on account of metering at different

points in case of CSPTCL and CSPDCL, and on account of consideration of all sources, viz., existing and new as well as conventional and renewable generating stations of CSPGCL in the power purchase of CSPDCL, whereas CSPGCL's Petition for true up for FY 2013-14 deals only with the existing thermal and hydro stations. The difference in cost of power purchase reported by CSPDCL and the revenue reported by CSPGCL is on account of the treatment of electricity duty, cess and water charges paid by CSPDCL to CSPGCL, which is an expense for CSPDCL but is not a revenue head for CSPGCL as the same is netted off due to payment of the same to the State Government.

2.1.2 Venue of Hearing

Some of the objectors suggested that the hearing should be conducted at multiple locations like Raipur, Bilaspur, Ambikapur, Jagdalpur, etc., and in premises not belonging to the Petitioners.

Petitioner's Reply

Petitioner submitted that the venue of the public hearing is decided by the Commission.

Commission's view

The Commission has ensured due process as contemplated under the law to ensure transparency and stakeholder participation at every stage and adequate opportunity has been given to all the affected persons to file their say in the matter. The decision on the venue of the hearing has been taken considering all the relevant issues such as logistics, convenience, seating capacity, security arrangements, etc.,. Further, the public has been given the opportunity and option to file suggestions and objections. All such suggestions and objections are also considered by the Commission before passing its Order. The hearing has been held at the same venue for the last three years it has never been a hurdle in maintaining transparency.

2.1.3 Purchase cost of Petitions

Shri Shyam Kabra representative of Urla Industries Association submitted that the legitimate expenses of the petitioners are borne by the consumers in the form of retail tariff and the purchase cost of the petitions, which is very high, should not be levied. The objector also submitted that the high purchase cost of the petitions deters the consumers from participating in the process of hearing.

Petitioner's Reply

CSPTCL submitted that the soft copy of the petition is available free of cost on its website as well as on the website of the Commission. CSPTCL further submitted that the purchase cost of the petitions is as approved by the Commission.

CSPDCL submitted that the printed copies of the petition are maintained to fulfil the regulatory requirements and the income earned from the sale of printed copies of the petition is deducted from its expenses.

Commission's view

The copies of the petitions were made available on the website of the petitioners as well as on the website of the Commission which can be downloaded free of cost. While fixing the prices of the printed petition, the Commission considers the print expenses of the petition. However, the Commission may again examine this issue in the subsequent years and if required appropriate measures shall be taken.

2.2 ISSUES RELATED TO TARIFF ORDER DATED JUNE 12, 2014 FOR FY 2014-15 PASSED IN PETITION 07/2014

CSPDCL has filed a petition 35/2014 for review of some issues in order passed in petition 07/2014. During the proceedings of the review petition, Shri Shaym Kabra representative of Urla Industrial Association has pointed out some discrepancies in figures in tariff order for FY 2014-15. These issues have been addressed below one by one;

2.2.1 Discrepancies in figures

- (i) Objector has submitted that discrepancies have been observed between the power purchase cost approved for CSPDCL and revenue from sale of power approved for CSPGCL. In FY 2011-12, the approved power purchase cost for CSPDCL from CSPGCL is Rs. 2193.11 Crore including Delayed Payment Surcharge (DPS) while the approved revenue from sale of power for CSPGCL is Rs. 2108.28 Crore including DPS, Electricity Duty (ED), Cess, etc. In FY 2012-13, the approved power purchase cost for CSPDCL from CSPGCL is Rs. 2413.42 Crore including DPS but the approved revenue from sale of power for CSPGCL is Rs. 2218.60 Crore including DPS, ED, Cess, etc. Therefore, there is unjustified increase of Rs. 84.33 Crore and Rs.194.82 Crore in the approved ARR of CSPDCL for FY 2011-12 and 2012-13, respectively. The objector

requested the Commission to review the power purchase expense allowed to CSPDCL for FY 2011-12 and FY 2012-13.

- (ii) The revenue from operations of CSPTCL for FY 2011-12 as per audited balance sheet is Rs. 590.35 Crore, but the Commission has approved the same as Rs. 736.81 Crore. For FY 2012-13, the revenue from operations is Rs. 729.92 Crore but the Commission has approved the same at Rs. 566.08 Crore. Objector requested the Commission to review the revenue receipt of CSPTCL for FY 2011-12 and FY 2012-13.
- (iii) The Commission has disallowed power purchase from Jindal Steel and Power Ltd. (JSPL) at the rate of Rs.2.66 per unit and allowed the power purchase of 980.19 MU at Rs.1.50 per unit, thus, disallowing Rs.1.16 per unit. This comes to total disallowance of Rs.113.70 Crore but the Commission has disallowed an amount of Rs. 117.62 Crore thus, causing an unjust reduction of Rs.3.92 Crore in the approved ARR of CSPDCL for FY 2012-13. The objector requested the Commission to review the amount of disallowed Power Purchase cost.
- (iv) Discrepancies have been observed in the intra-State Transmission Charges for FY 2011-12 and FY 2012-13 as submitted by CSPDCL and the actual revenue of CSPTCL as per the audited accounts for FY 2011-12 and FY 2012-13.
- (v) While calculating the distribution losses for FY 2011-12 and FY 2012-13, the Commission approved EHV sales of CSPDCL as 1865 MU and 2080 MU, respectively. However, while calculating the transmission losses for FY 2011-12 and FY 2012-13, the Commission has approved sales to consumers at 132 kV and above as 1662.72 MU for FY 2011-12 and 1661.42 MU for FY 2012-13.
- (vi) The energy input into the 33 kV system for FY 2011-12 and FY 2012-13 has been considered as 16156 MU and 16754 MU, respectively, in the computation of energy balance for CSPDCL; while the same has been considered as 15888.61 MU and 16369.21 MU in the computation of transmission loss of CSPTCL. The actual energy input into the 33 kV systems is 16156.72 MU in FY 2011-12 and 15885.36 MU in FY 2012-13.
- (vii) Distribution loss for 33 kV and below has been approved as 31.30% for FY 2011-12 and 28.89% for FY 2012-13. However, the actual distribution loss for FY 2012-13 works out to 25.07% considering the approved sales and approved loss levels.

- (viii) Discrepancy has been observed in the ARR and Revenue Gap approved for CSPDCL as depicted at different places in the Tariff Order for FY 2014-15.
- (ix) Computation error has been observed in the Interest on Working Capital (IoWC) approved in the true up for FY 2011-12 and FY 2012-13 resulting in additional interest on working capital allowed amounting to Rs. 25.34 Crore for CSPDCL, Rs. 4.41 Crore for CSPTCL and Rs. 16.26 Crore for CSPGCL.
- (x) The tariff of agricultural category has been increased from Rs. 1.46 per unit to Rs. 2.54 per unit but, as per the Commission's letter dated June 17, 2014 to the State Advisory Committee, it was informed that the tariff of agricultural category has been increased from Rs. 1.43 per unit to Rs. 2.52 per unit.

Commission's view

- (i) The Commission has taken note of the submissions of the objector and has addressed the issues in the following paragraphs.
- (ii) The Commission held a common Technical Validation Session with CSPGCL, CSPTCL and CSPDCL for reconciling the figures of quantum and cost of power purchase shown by the petitioners in the true up for FY 2011-12 and FY 2012-13, and sought detailed explanation for the differences in amounts reported in the audited accounts and respective petitions. Based on the submissions and explanations received from the petitioners, following points emerged:
- (iii) The differences in power purchase cost of CSPDCL and revenue of CSPGCL for the year 2011-12 and 2012-13 are on account of treatment of electricity duty, cess and water charges paid by CSPDCL to CSPGCL. It can be also be understood that electricity duty and cess collected from retail consumers by CSPDCL is not considered as revenue of CSPDCL as the same is disbursed to State Govt. CSPDCL only acts as billing and collecting agency for cess and electricity duty and the same is transferred to State Govt. Similarly, CSPGCL is required to pay electricity duty and cess on its auxiliary consumption energy supplied etc to State Govt. CSPGCL is also required to pay water charges to State Govt. Such statutory charges are pass through and not considered while determining tariff. CSPGCL recovers these charges from CSPDCL and pays to State Govt directly. But the amount paid by CSPDCL on such heads form a part of expense of CSPDCL.
- (iv) As regards the difference in the revenue receipt of CSPTCL for FY 2011-12 and FY 2012-13 as reported in the audited accounts and as considered in the

True-up by the Commission, the same is on account of accounting methodology followed by CSPTCL. Annual charges (ARR) or transmission tariff of CSPTCL is recovered in the form of long-term open access (LTOA) charges, medium-term open access (MTOA) charges and short-term open access (STOA) charges. CSPDCL only acts as a billing agency for LTOA and MTOA charges is CSPTCL. Intra-State STOA charges are billed by SLDC. STOA charges of using network of CSPTCL for inter-state open access is billed and collected by RLDC/NLDC and the same is disbursed to CSPTCL. In an order passed on 12.12.2012 in suo-motu petition no 51 of 2011 it has been clarified that CSPDCL has to comply prevalent open access Regulations for using network of CSPTCL and no discrimination can be made in implementing open access. Accordingly, the CSPDCL is required to pay short-term transmission charges to CSPTCL for using its network for short-term power purchase. It is also pertinent to note that apart from CSPDCL there are other users also who use CSPTCL system for selling power. So the total ARR of CSPTCL is met through charges received from CSPDCL and other users. In ARR of CSPDCL, transmission charges paid is reflected in the form of long-term charges and short-term charges is reflected. Owing to these reason intra-state transmission charges of CSPDCL is less than revenue earned by CSPTCL. It has been observed that CSPTCL has recovered Rs. 736.81 Crore in year 2011-12 from LTOA, MTOA and STOA. Further, during annual performance review order dated 28.04.2012 a surplus of Rs. 173.37Crore arose which was to be carried forward to the next financial year, since at that time the book remained opened and thus, an adjustment entry was passed in same year, by which the annual accounts of CSPTCL reported revenue as Rs. 590.35 Crore (i.e., inclusive of revenue earned by SLDC). Similarly, in FY 2012-13 after prudence checked carried out by the Commission, the revenue collection considered in true-up of CSPTCL was Rs. 566.08 Crore in place of Rs. 729.93 Crore as per audited annual accounts.. The excess disallowance of Rs. 3.92 crore on account of power purchase from JSPL has been added to the ARR of CSPDCL for FY 2015-16, and thus, this amount has been adjusted.

- (v) The differences in the amount of energy handled at EHV level and energy input at 33 kV level as reported by CSPTCL and CSPDCL are on account of metering at different points in case of CSPTCL and CSPDCL. For calculating transmission loss, CSPTCL has considered energy recorded at 33 KV side of power transformer. Whereas, CSPDCL has considered energy recorded at 33 KV feeder of EHV S/s. Further, it may be noted that though the Commission

has computed the amount of transmission loss for CSPTCL and distribution loss for CSPDCL for FY 2011-12 and FY 2012-13 in the Tariff Order for FY 2014-15 based on energy data submitted by the Petitioners, the Commission has not allowed any efficiency gains to CSPTCL and CSPDCL precisely on account of the lack of metering at all points and inconsistency of data between the petitioners. The Commission directs that henceforth, in the Petitions submitted by CSPGCL, CSPTCL and CSPDCL, the Petitioners should submit a clear reconciliation of the figures of energy handled as well as amount of revenue and costs incurred, so that the same is clear to the Commission as well as the consumers. Further, CSPTCL and CSPDCL should ensure that at all the relevant points are metered and consistent data is submitted to the Commission.

- (vi) The Commission clarifies that there is no discrepancy in the computation of normative Interest on Working Capital (IoWC) for CSPGCL, CSPTCL and CSPDCL in the tariff order of FY 2014-15, and the normative IoWC has been allowed in accordance with the provisions of the CSERC MYT Regulations.
- (vii) As regards the increase in the tariff for LT agricultural category, the Commission clarifies that the tariff was increased from Rs. 1.46 per unit to Rs. 2.54 per unit in the Tariff Order for FY 2014-15 and there was typographical error in the press release issued on June 17, 2014.

2.2.2 Revenue for CSPTCL from long/medium/short-term consumers

Shri Shyam Kabra representative of Urla Industries Association has submitted that although the energy share of CSPDCL out of the total energy handled by CSPTCL for FY 2011-12 and FY 2012-13 is 65% and 67%, respectively, the revenue contribution of CSPDCL is 92% and 99% respectively. It appears that the revenue from long/medium/short-term customers is not credited into the accounts of CSPTCL and the entire burden is being borne by CSPDCL. The objector submitted that the intra-State Transmission Charges for FY 2011-12 and FY 2012-13 have been wrongly estimated.

Commission's view

The Commission clarifies that all the revenue, including the revenue from long/medium/short-term customers is credited into the accounts of CSPTCL. Further, the objector's contention that the entire burden of CSPTCL's ARR is being borne by CSPDCL is incorrect, as the revenue from open access charges levied to other long-

tem/medium/short-term users of CSPTCL system is utilised to reduce the charges being paid by CSPDCL to CSPTCL. It should be noted that CSPDCL also procures short-term power from the exchange and bilateral sources, and hence, is also required to pay short-term open access charges to CSPTCL, which is rightly considered as an expense by CSPDCL and as a source of revenue by CSPTCL. Thus, it is clarified that there is no error in the computation of intra-State Transmission Charges for FY 2011-12 and FY 2012-13.

2.2.3 Peak hour charges

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission has approved peak hour charges of 30% on normal tariff on LT industries having connected load of 50 HP and above without providing any justification. While peak hour charges are imposed on LT industry consumers with high Average Billing Rate (ABR) of Rs. 5.78 per Unit and incentives on off-peak consumption are not provided, HV steel industries with low ABR of Rs. 4.88 per Unit are provided incentives of 15% on off-peak power consumption, however, no justification is provided for the same. The peak hour charges for LT industries may be withdrawn as there is no techno-economic benefit of imposing peak hour charges on LT industrial consumers as they have insignificant consumption.

Commission's view

The peak hour charges for the energy consumed during peak hours, i.e., 6 p.m. to 11 p.m., introduced in the Tariff Order for FY 2014-15 for all LV-2 (Non-Domestic) and LV-5 (LT Industrial) consumers having a connected/contracted load of 50 HP or 37 kW and above, has been withdrawn in this order, with effect from June 1, 2015.

2.2.4 Cross Subsidy Surcharge

Shri Shyam Kabra representative of Urla Industries Association has submitted that as per the guidelines of the Tariff Policy, cross Subsidy Surcharge (CSS) has to be progressively reduced but the CSS for HV and EHV categories has been increasing from FY 2006-07 to FY 2013-14, which is not promoting healthy competition.

Commission's view

The Commission has consistently been endeavouring to reduce the cross-subsidies between the consumer categories, in such a way that the cross-subsidy is within the $\pm 20\%$ band of Average Cost of Supply (ACOS), as stipulated in the Tariff Policy.

However, the changes in sales pattern i.e. HV /LV ratio had put constraints in achieving vowed objective within stipulated time. As regards the CSS being levied to open access consumers, the Commission has determined the CSS as 90% of the difference between the ABR and the ACOS of the EHV and HV categories, respectively. With the change in the relationship between the ABR and ACOS every year, the CSS is also revised every year. The Hon'ble Appellate Tribunal for Electricity (ATE) has also ruled that the CSS should be re-computed every year, along with the revision in tariffs.

2.2.5 Rate of inter-State sale of power for FY 2011-12 and FY 2012-13

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission, in the true up for FY 2011-12 and FY 2012-13, had approved the revenue from inter-State sale of power as Rs. 227.59 Crore and Rs. 930.04 Crore, respectively, without giving the details of quantum of energy sold. The approved rate for inter-State sale of power for FY 2011-12 is Rs. 3.25/kWh as per the MYT Order dated March 31, 2011, and is Rs. 3.40/kWh for FY 2012-13 as per the Tariff Order dated April 28, 2012. The loss incurred due to the variation in rate of inter-State sale of power is Rs. 46.38 Crore for FY 2011-12. The objector requested the Commission to carry out prudence check of the inter-State sale of power for FY 2011-12.

Commission's view

The Commission had noted this objections and due care shall be taken in issuing tariff orders for ensuing years so that details of quantum of inter-state sales is available to all. Regarding rates of inter-State sale of power by CSPDCL and UI, it has to be noted that rates specified in tariff order are on estimation basis and depends on rates prevailing in past years. But it is not necessary that actual rates in inter-state power market be according to estimates made by State Commissions. Sale of power is an uncontrollable item. Similarly actual UI charges for under drawl may also deviate from as estimated in tariff. Prudence check is carried out while truing up of tariff order and consumer's interest are never over looked.

2.2.6 Retail Supply Tariff for FY 2014-15

Shri Shyam Kabra representative of Urla Industries Association has submitted that the tariff rationalisation carried out by the Commission while approving the retail supply tariff for FY 2014-15 resulted in substantial increase in tariff for some of the

categories and substantial reduction in tariff for some of the categories, which is against the provisions of the Electricity Act, 2003.

The sales for LT Industries for FY 2014-15 have been approved as 556 MU based on the 4 year CAGR whereas the petitioner has submitted the sales data only for 2 years, i.e., FY 2011-12 and FY 2012-13. The objector requested the Commission to carry out prudence check regarding the sales of LT Industries.

Commission's view

The tariff philosophy adopted by the Commission while determining the retail tariff for FY 2014-15 is not the subject matter of the present petition filed by CSPDCL. The Commission endeavours to determine tariff in accordance with the Act, Rules and Regulations made under Act, and Judgments issued by Hon'ble ATE and higher Courts. All efforts are made to , reduce cross-subsidies, avoid tariff shock, etc. to consumers and at the same time it has to be taken care that ARR of distribution licensee is recovered in justified manner.

2.2.7 Contribution to Pension and Gratuity Fund

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission has stated in the Tariff Order for FY 2014-15 that as per Accounting Standard (AS) 15, it is mandatory for the Utility to maintain a fund for making payments to the employees on account of pension and gratuity, and that the Utilities are required to make annual contribution to the fund as allowed by the Commission from time to time. The objector requested the Commission to provide the Clause of AS 15, which provides for mandatory formation of Pension and Gratuity fund.

Commission's view

Vide notification no. GSR 739 dated 7th December, 2006, Govt. Of India notified the Companies (Accounting Standards) Rules, 2006. As per section 3 and 4 every company and its auditor shall comply with accounting standard from 1-7 and 9 to 29 and the same shall be applicable for the preparation of General Purpose Financial Statements. Considering the above and the procedure laid down in AS 15 for post employment benefit, defined contribution plans as defined in standard is to be established to meet out the future liability that arises post employment in the form of gratuity and pension. Further the objective of AS -15 is laid down as follows:

“The Standard requires an enterprise to recognise:

(a) a liability when an employee has provided service in exchange for employee benefits to be paid in the future; and

(b) an expense when the enterprise consumes the economic benefit arising from service provided by an employee in exchange for employee benefits.”

In light of above, to meeting the future liabilities of present employees as retirement benefit is recovered through allowing a fix contribution through ARR every year which is deposited in fund from the present consumer by is reasonable and justifiable.

2.2.8 Collection Efficiency

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission had expressed great concern over the collection efficiency in its MYT Order dated March 31, 2011 and directed CSPDCL to improve the collection efficiency by 2% every year starting from FY 2009-10. However, the same has been not considered by the Commission in the true up for FY 2011-12 and FY 2012-13.

Commission’s view

The Commission specifies loss targets in tariff order. Failure to achieve loss targets had been disallowed in earlier tariff orders also. While truing up for year 2011-12 and 2012-13, the Commission has disallowed incentives claimed by CSPDCL on account of achieving loss target less than as specified in main tariff order and the order is subjudiced before the Hon’ble ATE.

2.2.9 Cost of Supply

Shri Shyam Kabra representative of Urla Industries Association has submitted that as per the Judgment of ATE, the cost of supply as indicated in Section 61(g) of the Act is the actual voltage-wise and consumer category-wise cost of supply and not the average cost of supply as determined by the Commission.

SECR submitted that although the Commission had directed CSPDCL to prioritize the study regarding voltage wise cost of supply, CSPDCL has not submitted the voltage wise cost of supply in the petition. SECR further requested the Commission to take a firm stand and to dismiss the petition and to give direction to CSPDCL to submit revised ARR with voltage-wise and consumer category-wise cost of supply.

Commission’s view

The Commission has followed the average cost method for determination of retail tariff till segregation of voltage wise cost of supply. Any change in methodology will have to be preceded by thorough study and careful analysis. CSPDCL is directed to carry out a study and submit its proposal in the matter. In the interest of natural

justice, consumers of the States will be given a reasonable opportunity to give their comments on study report and proposal submitted by CSPDCL and before determining tariffs and cross-subsidy on the basis of voltage-wise cost of supply.

2.2.10 Transmission Open Access charges

Shri Shyam Kabra representative of Urla Industries Association has submitted that the transmission open access charges for short-term open access consumers had been approved as Rs. 0.278 per unit for FY 2014-15 without providing adequate justification. The objector added that the private generating companies and short-term open access consumers are being subsidised at the cost of retail consumers of CSPDCL.

Commission's view

The Commission has determined the open access charges for short-term open access customers using transmission system of CSPTCL for FY 2014-15 in accordance with the CSERC MYT Regulations, and the method of calculation has been elaborated in the MYT Order dated July 12, 2013. For reference, the method is explained as under:

The maximum demand in MW met by the State in the previous year is considered based on data submitted by SLDC. For estimating the energy input or energy to be handled by CSPTCL's system for the ensuing year, the Commission is considering load factor of 85% on maximum demand met in the previous year, which corresponds to energy handled in MU. Accordingly, the short-term Open Access charges (STOA) is computed in terms of Rs/kWh by dividing the total ARR of CSPTCL with the estimated energy input.

The same methodology has been adopted for determining the transmission open access charges for short-term open Access consumers for FY 2015-16 in this Order. The retail consumer are not at all subsidising any open access customers.

2.3 ISSUES RELATED TO CSPGCL

2.3.1 Guidelines on tariff calculation

Shri Ashok Surana, President, Chhattisgarh Mini Steel Plant Association has submitted that as per the new policy for coal block allocation, the tariff has to be computed by excluding the price of coal. However, CSPGCL has computed tariff by including the price of coal.

Commission's view

The Guidelines issued by the Ministry of Power, Government of India as notified in November, 2014 for allocation of coal blocks for the power sector, are applicable for generating stations that are awarded coal blocks under the auction process, whereas CSPGCL has not been awarded any coal blocks under the auction process. Moreover, the tariff for CSPGCL's stations for FY 2015-16 have been determined by the Commission vide the MYT Order dated July 12, 2013, in accordance with the CSERC MYT Regulations, which specify that the tariff has to be determined based on the price of coal. Hence, the contention of the objector is not applicable for CSPGCL

2.3.2 Performance in FY 2013-14

Shri Shyam Kabra representative of Urla Industries Association has objector submitted that for FY 2013-14, the PLF of 57% for Korba TPS is lower than the norm of 78.5%, auxiliary consumption of 13.33% is higher than the norm of 11.25%, Gross Station Heat Rate of 3412 kcal/kWh is higher than the norm of 3110 kcal/kWh and specific fuel oil consumption of 3.44 ml/kWh is higher than the norm of 2.00 ml/kWh. The objector submitted that the reasons submitted by the Petitioner for the same needs to be prudently checked.

He has further submitted that for FY 2013-14, the PLF of 62% of DSPM TPS is lower than the norm of 85%. The objector submitted that the reason of forced outage of one Unit as submitted by the petitioner for justifying the poor performance of the station needs to be prudently checked.

Further submitted that the energy generation from CSPGCL's stations has been declining year on year whereas the expenses have been increasing. The objector submitted that the Petitioner should conduct critical analysis of the same.

Petitioner's Reply

CSPGCL submitted that it always strives for achieving the best performance standards in the interest of all the stakeholders. However, some uncontrollable situations affect its performance. CSPGCL further submitted that the reasons for the deviations in the performance parameters have been submitted to the Commission.

Commission's view

The Commission has tried up the expenses and revenue of CSPGCL for FY 2013-14 strictly in accordance with the performance parameters specified in the CSERC MYT Regulations, and sharing of efficiency gains/losses has been done in accordance with

the Regulations and the approach adopted by the Commission in previous Orders, as elaborated in Chapter 3 of this Order.

2.4 ISSUES RELATED TO CSPTCL

2.4.1 Late Payment Surcharge

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Late Payment Surcharge of Rs. 95.79 Crore for FY 2013-14 as reported by CSPTCL should be treated as income and adjusted in the ARR as the IoWC is being allowed to CSPTCL.

Petitioner's Reply

CSPTCL submitted that the normative IoWC has been claimed in accordance with the Tariff Regulations. The Commission, vide its MYT Order dated July 12, 2013, approved the revenue surplus of Rs. 421.91 Crore, which was not actually realised in cash by CSPTCL. The approved surplus along with holding cost has been passed on to the consumers. The Late Payment Surcharge was levied on the outstanding dues from CSPDCL in accordance with the provisions of the Regulations.

Commission's view

The Commission is of the view that the interest on working capital is allowed on normative basis in which the receivables as specified in the Regulations are considered as part of working capital while late payment surcharge is recovered for delay in payment beyond the due date of payment. In accordance with the approach adopted by the Commission in the previous tariff orders for excluding the late payment surcharge from non-tariff income, the Commission has not considered the income from late payment surcharge as part of non tariff income.

2.5 ISSUES RELATED TO CSPDCL

2.5.1 Tariff hike

Some of the objectors submitted that the tariff hike of 33% proposed by CSPDCL would further burden the consumers already burdened by inflation, poverty and unemployment. The tariff of HV-3, HV-4 and HV-6 categories is already higher as compared to the tariff for corresponding categories in other States.

Petitioner's Reply

CSPDCL submitted that the tariff hike of 33% has been misconstrued as CSPDCL has only submitted the ARR and revenue at existing tariff.

Commission's view

The Commission has observed that these objectors have not submitted any factual point or discrepancy. In regards to these objections, it is to note that the Commission has determined the category-wise tariffs as elaborated in Chapter 8 of the Order, in order to match the approved Revenue Gap for FY 2015-16. The Commission has made best possible efforts to reduce the cross-subsidies and ensured that the tariff for most categories is within $\pm 20\%$ of the ACOS, as stipulated under the Tariff Policy.

2.5.2 Time of Day (ToD) Tariff

Shri Mahendra Mukim, President, Udyog Chamber, Chhattisgarh Chamber of Commerce and Industries has submitted that the ToD Tariff is not being implemented for consumption between 11 pm to 5 am. Also, he raised the concern that the off-peak incentive is provided to HT Steel Industries, having ABR of Rs. 4.88 per unit, while the same is not provided for LT Industry with ABR of Rs. 5.78 per unit.

Shri Vijay Kedia, President, Rice Millers Association, Akaltara has submitted that there is provision for 15% rebate on energy charge for HV and EHV consumers during off peak hours but Commission has not made similar provisions for the LT industrial consumers. Hence, submitted that Commission should consider the same for LT industrial consumers.

Mini Steel Plant Association has submitted that the Commission should consider increasing the rebate to Mini Steel Plants for using power in lean period from 15% to 30%.

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission should review the peak hour charges on LT Industries as the consumption is insignificant and would lead to no techno-economic benefit. The average load factor of LT Industries is 11%, which indicates that such industries are working in day time only. As new plants are getting commissioned in the State, the availability of power during peak hours shall improve and there is no requirement for

a restrictive approach. Peak hour charges should not be made applicable all LT Industries. Growth of LT Industries ensures employment and growth in rural areas.

South East Central Railway (SECR) submitted that Railways has fluctuating load and applying ToD to Railway Traction is not justified.

Petitioner's Reply

CSPDCL submitted that the objective of ToD tariff is to flatten the load curve. The consumption pattern needs to be changed so as to benefit from the ToD tariff structure.

CSPDCL submitted that under the prevailing ToD Tariff applicable to the EHV and HV categories, there is no provision for rebate in tariff during off peak period. CSPDCL submitted that the rebate applicable for consumption during the lean period is proposed to be continued.

CSPDCL submitted that Railways have never placed under ToD tariff nor is such proposal under consideration.

Commission's view

As stated earlier, the peak hour charges for the energy consumed during peak hours, i.e., 6 p.m. to 11 p.m., introduced in the Tariff Order for FY 2014-15 for all LV-2 (Non-Domestic) and LV-5 (LT Industrial) consumers having a connected/contracted load of 50 HP or 37 kW and above, has been withdrawn in this order, with effect from June 1, 2015. The Commission has not made any other changes to the ToD tariff structure.

2.5.3 kVAh billing

Shri Vijay Kedia, President, Rice Millers Association, Akaltara submitted that the proposal of CSPDCL to bill consumers with connection of 50 HP under kVAh billing would add to the financial burden on these type of category of consumers.

Shri P. N. Khandelwal, Secretary General, Chhattisgarh Ferro Alloys Producer's Association, Raipur submitted to the Commission to introduce kWh billing for ferro alloy industries connected at 132 kV, as is being done in case of 33 kV, at the tariff applicable to steel category.

Mini Steel Plant Association has submitted that mini steel plants would face 5% loss because of kVAh billing and hence, requested the Commission to continue kWh billing.

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission directed CSPDCL to conduct a study on the impact of kVAh billing on HV consumers. CSPDCL submitted the Report without stating any impact and no study was produced for LT consumers making it clear that there is no proposal to introduce kVAh billing for LT consumers. The average HV power factor is already at very good level. As per the Report submitted by CSPDCL, there is likely to be an average hike of about 6.2% in the tariff of HV consumers after kVAh billing.

Shri Shyam Kabra representative of Urla Industries Association has submitted that the energy accounting will be difficult as the power purchase is in terms of kWh and energy sales shall be in terms of kVAh. CSPDCL has considered the energy consumption in kVAh for EHV and HV-6 during FY 2015-16 while estimating the revenue at current tariff but while calculating the energy balance and distribution losses, the same figures has been used without correcting for the power factor. By considering average power factor of EHV consumer as 0.96, about 96 MU are not accounted for, which amounts to Rs. 62.40 Crore at highest power purchase price. The issue of billing on kVAh basis should be dealt with separately by floating a Discussion Paper and wide discussion should be held with stakeholders on the merits and de-merits of the proposal. The objector requested the Commission to provide sufficient time, if all the stakeholders are in favour of kVAh billing, to consumers for installation of automatic PF controllers/banks for minimizing their financial burden.

Petitioner's Reply

CSPDCL submitted that the kVAh billing was introduced for HT and EHT consumers in FY 2005-06. Many Reports have been submitted to the Commission regarding the impact of kVAh billing. There shall be no effect of changing the tariff from kWh to kVAh when the power factor is around unity. If the average power factor is 0.96, the licensee has to bear the burden of reactive energy corresponding to 0.04 PF and also pay incentive to the consumers. The effect of power factor does not change with supply voltage.

The power purchase of CSPDCL is in kWh terms and at the same time, extra reactive energy drawn has also to be paid for. The power factor penalty is not enough to offset the effect of reactive energy drawn from the grid.

CSPDCL submitted that kVAh billing system is a more accurate and cost effective system to extend uniform incentives/penalties on account of low or good power factor and is also prevalent in many States. CSPDCL also submitted that if the proposal was considered, the kVAh tariff determined shall be less than kWh tariff by the average power factor.

Commission's view

The Commission is of the view that sufficient time has already been provided to the consumers, as the Commission has been discussing about introduction of kVAh billing to more categories, in its past Tariff Orders. Further, since, the power factor is already at very good level as admitted by the objector; the impact of kVAh billing will also not be significant.

Hence, in continuation of the Commission's philosophy of moving from kWh based tariff to kVAh based tariff in order to improve the power factor and hence, voltage profile of the system, the Commission has introduced kVAh based energy charges for the remaining HT categories including the newly created categories, i.e., HV-1 (Steel Industry), HV-2 (Mines, Cement, Other Industries and General Purpose Non-Industries), HV-3 (Low Load Factor Industries), HV-4 (Residential, Irrigation & Agriculture Allied Activities) and HV-5 (Public Water Works). The Commission has appropriately determined kVAh tariff with respect to kWh tariffs, keeping in mind the average power factor of the consumer.

As regards the concerns raised on the issue of mismatch in energy accounting, it is clarified that the Commission has considered the correct quantum of energy in terms of kWh for energy accounting purposes, while for revenue calculation purposes; the projected kVAh has been multiplied by the applicable kVAh tariffs. It may be noted that the meters record the kWh as well as kVAh.

2.5.4 New Consumer Categories/Modifications to existing Categories

Shri Vijay Kedia, President, Rice Millers Association, Akaltara has submitted that LT consumers availing connection up to 100 HP have to pay heavy penalty if the demand exceeds 100 HP and they have to take additional connection as CSPDCL cannot sanction connections beyond 80% of the transformer capacity, which is currently at 100 kVA. The objector suggested that a new category may be introduced for demand above 100 HP by installing higher capacity transformer.

Shri Anil Kumar Rai, Director, Airport authority of India has submitted that Commission to create a new category for airports as done for steel industries as HV-1, Option-I Steel industry. Currently, HT tariff is charged for general purpose, which is higher than the tariff charged to other industries.

Mini Steel Plant Association has submitted that the Commission should consider making a provision of separate tariff for high power factor and high load factor units.

Shri D. B. Singh, Idea Cellular Limited has submitted that the Commission should consider creating a separate tariff category for telecom companies with lower tariff as comparison to non-domestic category as they are a public service utility. The objector also referred to the Judgment of Hon'ble ATE dated May 31, 2011 in Appeal No. 195 of 2009 and Judgment dated July 18, 2011 in Appeal No. 144 of 2009 against categorisation of airports under commercial category.

Shri P. N. Khandelwal, Secretary General, Chhattisgarh Ferro Alloys Producer's Association, Raipur has submitted that Commission should consider for special tariff for Ferro alloy industries by reducing tariff or to continue option-2 for HV-1 at 70% guaranteed load factor. The objector further requested the Commission to provide option to 132 kV steel categories, as available to 33 kV steel category.

Shri Anil Pateria, President, Chhattisgarh Federation of Industries submitted that aluminium wire drawing units along with galvanizing unit should be included in HV-1 tariff category as both industries are similar in nature. The objector also requested to revise the list of industries, which can avail the tariff of HV-1 category.

Shri Anil Pateria, President, Chhattisgarh Federation of Industries submitted that the Commission should consider revising the maximum contract demand limit of LV-2 Non Domestic consumer category to 200 kW from 75 kW.

Shri D. B. Singh, Idea Cellular Limited has submitted that the Commission should consider making changes in the applicability of non-domestic demand based tariff from 15-75 kW to 5-75 kW as the objector has more than 800 LT connections for mobile towers. The objector also sought demand based tariff for all connections as the diversity factor is low and standby equipment is installed for increasing the reliability of the communication network due to which its installed load is more but maximum demand is low.

Petitioner's Reply

CSPDCL submitted that the prevailing limit of contract demand for LT connection is fixed as per the provision of applicable Supply Code under the classification of consumer with reference to the voltage of supply.

CSPDCL submitted that the maximum contract demand is fixed as per the provision of prevailing supply code under classification of consumer with reference to voltage of supply.

CSPDCL submitted that additional demand raised by the objector shall be considered separately as it does not pertain to the instant Tariff Petition for FY 2015-16.

CSPDCL submitted that the creation of new consumer categories and modification of categories shall be decided by the Commission.

Commission's view

The tariff philosophy adopted by the Commission and the creation/rationalisation of tariff categories has been elaborated in Chapter 8 of this Order. It is clarified that the limit of sanctioned load/contract demand for taking supply at LT voltage is specified in the CSERC Supply Code. As regards the request for a separate category for industries having high load factor and high power factor, it is clarified that such industries have an in-built incentive, as the incidence of the Demand Charges on a per unit basis would be lower because of the higher consumption, and the kVAh tariffs would result in lower tariffs because of the higher power factor. Hence, there is no requirement to create a new category for this purpose. Further, the Commission is of the view that the mobile towers are appropriately categorised under non-domestic category, and that there is no need to revise the applicability of the same.

2.5.5 Distribution Losses

Shri J. P. Agrawal, Shakti Ward, Bhatapara has submitted that the major reasons for Distribution Losses are wastage of electricity, theft from naked live wires and tampering of meters, faulty meters, unauthorised connections, and improper execution of loss mitigating measures by CSPDCL.

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission had directed CSPDCL to reduce circle level losses by March 31, 2015 but the actual losses are showing an increasing trend. The T&D loss in the State is in the range of 28%-30% while the T&D losses of Maharashtra have reduced from 30% in 2008 to 15% in 2014. The Commission had directed CSPDCL to make extra efforts to minimize defective meters within the permissible limits of 2.5% as per provision of CSERC Supply Code 2011 whereas the defective meters are 4% as per a newspaper report.

SECR submitted that although CSPDCL has shown reduction in losses, the benefits achieved are not reflected in ACOS, and on the contrary, the ACOS has increased.

Petitioner's Reply

CSPDCL submitted that theft of electricity is a serious matter and it is taking necessary steps for curbing the same. Public awareness and public participation are needed for curbing the theft of electricity.

CSPDCL submitted that the T&D losses are as per the Commission's guidelines.

CSPDCL submitted that reduction of distribution loss is reflected in the reduction in power purchase cost. The benefit of reduction in loss is shared in the ratio of 2/3 and 1/3 by the consumers and Licensee respectively as per CSERC MYT Regulations.

CSPDCL submitted that the distribution loss in its area of supply is the relevant parameter and it has always been achieving the targets prescribed in this regard.

Commission's view

The Commission appreciates the concern of the objectors. The Commission had been approving all investments proposed by CSPDCL for system improvement. But the losses are further required to be reduced. The Commission directs CSPDCL to take all possible serious measures for reducing the technical and commercial losses so that consumers of State are not burdened due to higher losses of system. ..

2.5.6 Variable Cost Adjustment (VCA)

Some of the objectors submitted that the VCA of 10 paise per unit amounts to doubling of the VCA in the last 7 months. One objector submitted that the petitioner has not submitted the details of VCA charges collected from different consumer categories, and detailed information regarding the income received from VCA charges has not been submitted. The deficit of Rs. 731 Crore is objectionable as the variation in power purchase cost has been recovered through VCA charges.

Mini Steel Plant Association has submitted that the VCA charges of 23 paise per unit being charged from December 1, 2013 should be discontinued as no proper justification is being provided for the same.

Petitioner's Reply

CSPDCL submitted that VCA charges are levied in accordance with Section 62(4) of the Electricity Act, 2003.

Commission's view

The VCA mechanism has been introduced as per the directives of the Hon'ble ATE in OP No. 1 of 2011. The methodology of recovering VCA charges has been specified in the Order issued by the Commission in petition no 26/2012. Energy charges for State owned generating company CSPGCL has been decided for control period 2013-14 to 2015-16 in tariff order dated 12 July 2013. The variations in fuel cost from that base level is recovered through the VCA mechanism. The VCA mechanism also provides for recovering power purchase cost variations of power purchase from Central

generating stations. It is pertinent to note that CSPDCL procures power from renewable plants also and short-term power. Variations in power purchase cost, if any, for power purchase from renewable and short-term power purchase is not recovered through VCA. It is also clarified that the power purchase cost may vary from time to time due to variation in the power purchases mix. Tariff Policy stipulates that uncontrollable costs should be recovered speedily to ensure that the future consumers are not burdened with the past costs. Accordingly, VCA charge may vary depending upon the variations in the power purchase cost of CSPGCL and Central generating stations with respect to the estimations in the Tariff Order. The Commission directs CSPDCL to clearly and separately show the revenue earned through energy charges and VCA charges along with its next tariff petition, for complete clarity.

2.5.7 Other Charges

One objector submitted that the meter charges are being collected from the consumers over and above the cost of meter, which is against the policy of the State Government.

Shri Imran Pasha and Shri Anil Goel, Azadi ka Antim Andolan, have submitted that the Commission should remove collection of meter charges, computer charges, security deposit, etc., from the bills of the general consumers. Consumers should be charged on the basis of their actual power consumption without taking any profit.

Mini Steel Plant Association has submitted that the electricity cess has been increased from 5 paise per unit to 10 paise per unit and requested the Commission to retain electricity cess at 5 paise per unit.

Petitioner's Reply

CSPDCL submitted that the distribution business is a regulated business and profit in the form of Return on Equity (RoE) is as per the Regulations. CSPDCL also submitted that no computer charges were billed to consumers. With respect to meter charges, CSPDCL has provided option to consumer to have their own meter and for such meters; consumers do not have to pay meter charges. CSPDCL also submitted that security deposit was collected from the consumer and interest was paid on this in accordance with the provisions of the Regulations.

Commission's view

It is clarified that CSPDCL is regulated entity and is entitled for RoE, in addition to the approved expenses, in accordance with the Tariff Policy and CSERC MYT Regulations. As regards the security deposit and meter rent, the same are permitted to

be recovered as per the Act and Regulations. Further, interest is paid on the security deposit in accordance with the Act and Regulations. Also, the amount of security deposit collected from the consumers is reduced, while calculating the normative working capital requirement. All duties, cess, etc., are levied by the State Government and are not within the purview of the Commission.

It is also clarified that CSPDCL is entitled to bill the consumers only in accordance with the terms and conditions of the retail supply tariff. The objectors may approach the appropriate forum for necessary relief, in case of any violation of the terms and conditions of Tariff by CSPDCL.

2.5.8 Late Payment Surcharge

One objector submitted that late payment surcharge is 1.5% per month, i.e., 18% annually, whereas the interest paid to consumers on their deposit is 0.75% per month i.e., 9% annually. Both these interest rates should be levied at similar rates.

Petitioner's Reply

CSPDCL has not submitted any reply.

Commission's view

It is clarified that the late payment Surcharge is levied in accordance with the provisions of the CSERC MYT Regulations, 2012. It may be noted that the higher rate of late payment surcharge is intended to act as a deterrent against delayed payment of bills by the consumers, as any delay adversely affects the cash flow of CPSDCL, which may affect its ability to provide the requisite services to the consumers. On the other hand, the security deposit paid by the consumers is a security against the consumption, since; the bills are raised after the energy is consumed. Further, Section 47 (4) of the Act provides that the distribution licensee shall pay interest equivalent to the bank rate or more, as may be specified by the concerned State Commission, on the security deposit. As the Commission has retained the rate of interest as the bank rate, the same is payable by CSPDCL to the consumers on the respective security deposit.

2.5.9 Outstanding dues

Some of the objectors submitted that the outstanding dues of CSPDCL are to the extent of Rs. 500 Crore, of which Rs. 250 Crore is unrecovered from Jindal Mandir Hassaud. The electricity connection of general public is disconnected immediately on

non-payment of bills while the same treatment is not being given to some industrial consumers.

Petitioner's Reply

CSPDCL submitted that there is no such outstanding due of Rs. 250 Crore of Jindal Mandir Hassod. Some payment of CSS by Monnet Ispat is pending due to legal proceedings in the High Court. CSPDCL also submitted that disconnection is done only when the bill payment is not done. However, disconnection of general public, which creates inconvenience, is done only when it is necessary to do so.

Commission's view

It is clarified that the retail tariffs are determined on the basis of 100% collection efficiency estimations, i.e., even though CSPDCL may not have collected the entire amount from the consumers, such shortfall in revenue collection is not passed on to the consumers, in the form of increased tariffs. However, collection of outstanding dues by CSPDCL will ease the cash flow constraints and reduce the requirement of actual working capital, and hence, CSPDCL is directed to make all efforts to collect its outstanding dues from the consumers at the earliest. Further, disconnections should be done strictly as per the provisions of the Act, Rules and Regulations, without any discrimination between the consumer categories.

2.5.10 Charges for online payment of bills

Shri Rajendra Yadav and others have submitted that the online payment of bills attracts transaction charges of 1.5% of the paid amount. As no extra charges are being levied for direct payments, the transaction charges for online payment should also be waived off.

Petitioner's Reply

CSPDCL submitted that it does not levy any transaction charges for online payment of bills. The transaction charges as stated by the objector are those levied by the respective banks.

Commission's view

The Commission advises the petitioner to pursue with banks for levying zero transaction charges for online payment of consumer bills, as this will facilitate online payment by consumers and improve the collection efficiency as well as reduce the burden on the cash collection system of CSPDCL and also reduces manhandling of

the cash thereby reduces the chances of theft. The petitioner should explore other such system adopted by other service provider like telecom who offers facility of online payment of bill free of charge.

2.5.11 Bad and Doubtful debts

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission should not pass on the burden of provision for bad and doubtful debts to consumers, as any provision for bad and doubtful debts might encourage the petitioner to adopt sluggish and lethargic approach towards recovery of dues. The arrears are increasing even after Commission's directions to reduce 50% arrears against LT consumer by March 31, 2015 and to submit quarterly progress but no serious efforts have been taken by CSPDCL. The outstanding arrears as on March, 31 2014 were Rs. 323 Crore, which has increased to Rs. 475 Crore till July, 2014.

Petitioner's Reply

The provision for bad and doubtful debts is allowable in accordance with the CSERC MYT Regulations, 2012

Recovery of arrears is being dealt by the Licensee with utmost importance

Commission's view

The provision for debts is allowable to the Petitioner strictly in accordance with the provisions of the CSERC MYT Regulations, 2012. However, 100% collection of dues by CSPDCL will ease the cash flow constraints and reduce the requirement of actual working capital, and hence, CSPDCL is directed to make all efforts to collect its dues from the consumers at the earliest.

2.5.12 Pass through of the expenses

One objector requested the Commission not to pass through the expenses of up-gradation of infrastructure, new computers, etc., to consumers.

Petitioner's Reply

CSPDCL has not submitted any reply.

Commission's view

The Commission has allowed the expenses of the petitioner after prudence check strictly in accordance with the provisions of the CSERC MYT Regulations, 2012.

2.5.13 Free Power

One objector submitted that the Government has declared free power to 5 HP pump sets but the same is not implemented yet. The farmer uses pump set for 3 months during a year but pays bills for 12 months.

Petitioner's Reply

CSPDCL submitted that it is supplying power according to the guidelines.

Commission's view

The Commission has determined the tariff in accordance with the Electricity Act, 2003, Regulations and relevant guidelines. The agricultural consumers are advised to opt for metered connections, so that they are required to pay only for the amount of electricity consumed, and in case there is no consumption for 9 months of the year, then the consumer would only have to pay the fixed charges for this period.

2.5.14 Tariff for Mini Steel Plants

Mini Steel Plant Association has requested the Commission to reduce the energy charge of Mini Steel Plants from Rs 4.50 per unit to Rs 3.50 per unit which is the tariff for Jindal Park and maintain the same for next 3 years. They added that the private power producer Jindal Steel, Raigarh is supplying power to mini-steel plants located in Jindal Park at Rs. 3.33 per unit and the CPP is able to produce power at Rs.2.95 per unit.

Mini Steel Plant Association has submitted that at fixed charges of Rs 360/kVA/month, a plant of 3000 kVA plant has to pay Rs. 12 Lakh/month as Fixed Charges, even if the plant is closed and Rs 60-65 Lakh/month if it is running. The objector requested the Commission to reduce the demand charges to Rs 180/kVA/month for the next 2 years and Rs 200/kVA/month thereafter.

Mini Steel Plant Association has requested the Commission to motivate the Mini Steel Plants by providing some rebate on the basis of power consumption like consumer having consumption in range of 10 lakh to 15 lakh units should be given power at Rs 3.50 per unit while consumers having consumption more than 15 lakh units should be given power at Rs. 3.25 per unit.

Mini Steel Plant Association has requested the Commission to consider load factor of mini-steel plants as 55-60% while preparing Load factor policy as the slump in Steel sector in the last 3 years has resulted in closure of 70-80 mini steel plants and the rest are working at 50-60% capacity.

Petitioner's Reply

CSPDCL submitted that tariff in Jindal park is not comparable with CSPDCL because of the difference in the geographical area. CSPDCL submitted that determination of the consumer category-wise tariff is the prerogative of Commission.

CSPDCL submitted that the proposal of objector for tariff based on the consumption for the Mini Steel Plants is not viable.

CSPDCL submitted that it had not proposed any load factor policy.

Commission's view

The tariff philosophy, category-wise tariff, and category-wise cross-subsidy approved by the Commission for FY 2015-16 have been elaborated in Chapter 8 of this Order.

2.5.15 Security Deposit

Some of the objectors submitted that the change in provisions of security deposit from 1.5 months to 2 months, in the new Supply Code has resulted in increase in security deposit from Rs. 90 Lakh per furnace for 2800 kVA load to Rs. 1.3 Crore and requested the Commission to reduce the security deposit to 1.5 months. The interest on security deposit is 9% which should to be increased to 14% as given by National Banks. However, 36% interest is collected in case of late payment surcharge. CSPDCL has paid Rs 68.62 Crore as interest on security deposit of Rs. 896.17 Crore. The compounded rate of interest paid by CSPDCL is 7.8% per annum while the SBI base rate is 9.7% per annum. The objector submitted that during FY 2013-14, CSPDCL has projected a working capital requirement of Rs. 684 Crore against security deposit of Rs.858 Crore. The objector raised the concern over the treatment of the extra amount as such huge amount cannot be kept idle, and if CSPDCL is earning interest by keeping it as fixed deposit in bank, then was it reflected in the statements of non-tariff income.

Shri Shyam Kabra representative of Urla Industries Association has raised concern over CSPDCL claiming carrying cost of any deficit/ revenue gap at a rate of 14.45% amounting to Rs. 94.64 Crore. The objector requested the Commission to deduct surplus security deposit from the revenue gap while computing the carrying cost.

Shri Vijay Bothara, Chhattisgarh Steel Re-rollers Association has submitted that the steel rolling mills are being charged the consumer security deposit of 2.5 to 3 months in violation to the applicable rules.

Petitioner's Reply

CSPDCL submitted that the security deposit and interest on consumer security deposit is as per the Supply Code and applicable Regulations.

Commission's view

The consumer security deposit is recoverable by CPSDCL in accordance with the CSERC Supply Code Regulations. Further, interest is paid on the security deposit in accordance with the Act and Regulations, and the same is considered an expense for CPSDCL. As the amount of security deposit with CPSDCL is used in its business operations and is in excess of the normative working capital requirement, the Commission has considered notional interest on this excess amount and reduced the same from the ARR, as elaborated in Chapter 7 of this Order.

2.5.16 Retail Tariff

Shri Mahesh Kakkad, Chhattisgarh Udyog Mahasangh has submitted that the tariff for HV-3, HV-4 and HV-6 categories in Chhattisgarh is higher than that prevailing in other States. As a result, the State has more iron and steel industries. The objector requested Commission to promote other industries like Engineering, Food Processing, Electronics, Aluminium based industry and herbal based industries.

Shri Vijay Bothara, Chhattisgarh Steel Re-rollers Association has submitted that subsidized tariff to HV-1 Steel industries is at the cost of other industries. However, HV-3 low load factor industries (rolling mill, etc.) have the highest industrial tariff in comparison to HV-1 category.

Shri Vijay Bothara, Chhattisgarh Steel Re-rollers Association has submitted that steel rolling mills work only one shift and fixed charges increase the financial burden as it increases average tariff.

Shri Vijay Bothara, Chhattisgarh Steel Re-rollers Association has submitted that the average tariff of steel rolling mills under HV-3 category is around Rs. 6.70 per unit while the other steel industries under HV-1 category are charged average tariff of Rs. 4.64 per unit.

Shri P. S. Dutta Gupta, Sarda Energy and Minerals limited, Shri B. L. Agrawal, MD, Godavari Power and Ispat Limited and Shri S. K. Goel, Director, Shri Bajrang Power and Ispat Limited, have submitted that although pelletisation plant, iron ore beneficiation plant and integrated steel plant are essential part of steel industries, they are treated as separate industry, which is not justified. The objector further requested to amend the definition of applicability of HT tariff.

Shri B. K. Gupta, General Secretary, Urla Industrial Association has requested to include the steel pipe and tube rolling mills in steel industries category of tariff.

SECR submitted that CSPDCL is violating Article 287 of the Constitution as Railways is being charged higher than steel industry (EHV-3).

Petitioner's Reply

CSPDCL submitted that they have already requested the Commission to withdraw special tariff rebate to steel industries.

CSPDCL submitted that existing steel industries category is just and proper and determination of the consumer category-wise tariff is the prerogative of Commission.

CSPDCL submitted that Article 287 of the Constitution of India specifies the exemption from taxes on electricity only and accordingly, no tax in terms of electricity duty and cess are levied on the consumption by Railways. CSPDCL also submitted that there is nothing about the reduced or subsidized tariff under the said provision for Railways.

Commission's view

The tariff philosophy, category-wise tariff, and category-wise cross-subsidy approved by the Commission for FY 2015-16 have been elaborated in Chapter 8 of this Order.

2.5.17 Tariff for agricultural consumers

Shri Raj Kumar Gupt, Convenor, Chhattisgarh Pragatisheel Kisan Sangathan has submitted that for the houses built on agricultural land, CSPDCL is charging the tariff applicable for domestic category in contravention to the Judgment of the Bilaspur High Court dated February 25, 2013. Poultry, fishery and dairy are considered as commercial or industrial category and corresponding tariff is being applied.

Petitioner's Reply

CSPDCL submitted that the said order of the Bilaspur High Court was set aside by a separate order. It is not correct to say that houses built on agriculture land would be considered as the agriculture load, instead agriculture usage is considered as a 40 watt bulb or tube light. If the usage is more than this then it is considered as domestic consumer. Determination of consumer category-wise tariff and deciding the category of a consumer is the prerogative of the Commission.

Commission's view

The tariff philosophy, category-wise tariff, and category-wise cross-subsidy approved by the Commission for FY 2015-16 have been elaborated in Chapter 8 of this Order. .

2.5.18 UI Purchase

Shri Shyam Kabra representative of Urla Industries Association has raised concern over the purchase of 54.11 MU under UI mechanism at a cost of Rs. 50.04 Crore, which amounts to Rs. 9.25/kWh.

Petitioner's Reply

CSPDCL submitted that the energy of 54.11 MU is the resultant units out of the total energy under-drawn and over-drawn and the cost is the net of UI paid/received. The actual average rate of UI for energy over-drawn in FY 2013-14 was Rs. 2.28/kWh.

Commission's view

The Commission has accepted the submission of CSPDCL and approved the UI purchase in the final true up for FY 2013-14 for CSPDCL as submitted by CSPDCL, as elaborated in Chapter 7 of the Order.

2.5.19 Final true up for FY 2013-14

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Petitioner has submitted the consumer category-wise sales for FY 2013-14 but has not submitted the category-wise revenue. In the absence of the same, the average revenue realisation from each consumer category cannot be ascertained.

Some of the objectors submitted that the information submitted by the Petitioner is incomplete and without adequate justification. The actual expenses for FY 2013-14 are higher than that approved in the Tariff Order and requested the Commission to carry out the prudence check while carrying out the true up for FY 2013-14.

Petitioner's Reply

CSPDCL submitted that the month-wise revenue returns are being submitted to the Commission, which contains the category wise sales and revenue. The true up Petition is based on the actual revenue from sales and hence, the category-wise revenue is not submitted again.

CSPDCL submitted that its actual expenses are audited by CAG. With the increase in volume of business year on year, the expenses as well as the revenue from business is bound to increase.

The complete variation in power purchase cost is not covered by VCA charges due to the time lag from the actual period of incurring the expenses and the period during which the same is allowed for recovery. Further, all the variations in power purchase cost are not allowed to be passed through VCA charges.

The prior period expenses of Rs. 134.12 Crore for FY 2013-14 are mainly on account of the power purchase cost of earlier years realised in this year.

Commission's view

The Commission has detailed the final true up for FY 2013-14 for CSPDCL in Chapter 7 of the order, wherein the Commission has trued up the ARR and Revenue for FY 2013-14, based on prudence check of all heads of expense and revenue. However, the licensee while submitting true-up petition can provide details of category wise revenue. Accordingly, the licensee is directed to provide such details in next true-up petitions.

2.5.20 Average Billing Rate (ABR) and Average Cost of Supply (ACOS)

Shri Shyam Kabra representative of Urla Industries Association has submitted that as per the Tariff Policy, the ABR should be within $\pm 20\%$ of ACOS and the current tariffs are in violation to the provisions of the Tariff Policy.

SECR submitted that the 12.95% hike proposed by CSPDCL in ACOS will result in additional financial burden of Rs. 64.78 Crore on the Railways. The average tariff for South East Central Railways (SECR) for FY 2014-15 was Rs. 5.59 per unit while the same for East Coast Railway Zone (ECoR) was Rs. 7.18 per unit. The average tariff of Railways is 27% higher than ACOS, which is not in compliance to Section 61(g) of the Electricity Act, 2003.

SECR submitted that SECR and ECoR use around 940.76 MU, i.e., 6.36% of electricity sold by CSPDCL and pay around Rs. 507.51 Crore, i.e., 8.82% of the total revenue from sale of power, which indicates that Railways is paying 1.386 times the cost, to CSPDCL. This indicates high cross subsidization by Railways tariff. SECR also submitted that no roadmap to reduce or eliminate cross subsidy has been submitted by CSPDCL. Further, SECR requested exemption of cross subsidy as they are a deemed licensee under third proviso of Section 14 of EA 2003.

SECR added that there has been increase in approved ACOS of CSPDCL year on year, which is resulting in undue financial burden on the Railways.

Petitioner's Reply

CSPDCL submitted that ACOS determined by the Commission for CSPDCL for FY 2014-15 was Rs. 4.40 per unit, which was based upon the cost attributable to tariff only. The miscellaneous charges from other charges were not included in computation of ACOS by the Commission. Miscellaneous charges are not dependent on electricity consumption and are recoverable even without any consumption. The actual effective billing rate to SECR and ECoR covered by the same tariff works out to Rs. 5.31 per unit. The actual billing rate as compared to ACOS is 120.6% only. Therefore, the traction tariff is within (+/-) 20% of ACOS as directed under the Tariff Policy. CSPDCL further submitted that they have not proposed any specific hike in tariff as contended by Railways.

CSPDCL submitted that it has been specifically submitted in the petition regarding change in tariff that any change should be subject to compliance of the Tariff Policy. The apprehensions of Railway are based on erroneous assumptions.

CSPDCL submitted that the tariff is not reflecting the actual cost of supply and they are incurring financial loss due to undue disallowance of actual cost by Commission. Section 61(g) of EA 2003 does not stipulate to reflect the actual cost to the consumer because tariff itself is the actual cost to consumer.

CSPDCL submitted that the Tariff Orders issued by the Commission for the past 4 years have been challenged before the Hon'ble ATE and the justification of the objectors claim regarding the increasing ACOS over the years shall depend on the outcome of those Appeals.

CSPDCL submitted that revision of electricity tariff every year is mandated as per the Act. However, railway freight was revised more than once in a year and it also has bearing on electricity tariff. Every service provider or supplier is entitled to recover its input cost in a reasonable manner; otherwise the service/supply cannot be made available. Therefore, it is not justified on the part of Railways to attribute the increase in input cost unilaterally to CSPDCL.

Commission's view

The reply of CSPDCL that they are incurring financial loss due to undue disallowance of actual cost by Commission is unacceptable. The licensee has

preferred an appeal on the orders and the issues raised will be resolved in appeal and thereafter only it can be said whether cost disallowed was reasonable or not. The tariff philosophy, category-wise tariff, and category-wise cross-subsidy approved by the Commission for FY 2015-16 have been elaborated in Chapter 8 of this Order. The Commission has tried to bring the level of cross-subsidy for all the category of consumers to near to +/- 20%.

2.5.21 Deemed Licensee

SECR submitted that Indian Railways is a deemed licensee in accordance with the provisions of the Act and requested the Commission to have a separate tariff for Railways as a deemed licensee. The wheeling charges would be paid for usage of CSPDCL's network without cross subsidy surcharge.

Petitioner's Reply

CSPDCL submitted that there is no dispute over the deemed licensee status of Railways and accordingly it is entitled to distribute electricity without availing a licence. However, this status of deemed licensee does not alter the responsibility of Railways to purchase the electricity at a regulated price which the railway is doing at present. Railways are only paying the tariff determined by the Commission which have an element of cross subsidy and not cross subsidy surcharge.

CSPDCL also submitted that licensee is an entity, purchasing electricity for retail sale of electricity. Since the railway is purchasing electricity for self-consumption, the function of Railways here is of a consumer and not a licensee.

Commission's view

The Commission agrees with the view of the petitioner that the Railways are paying the tariff determined by the Commission, which have an element of cross subsidy and not cross subsidy surcharge. The tariff philosophy, category-wise tariff, and category-wise cross-subsidy approved by the Commission for FY 2015-16 have been elaborated in Chapter 8 of this Order. The Commission has ensured that the cross-subsidy for Railways is reduced, and the ABR for Railways has been reduced to 120% of the ACOS approved for FY 2015-16.

2.5.22 Sales forecast for FY 2015-16

Shri Shyam Kabra representative of Urla Industries Association has submitted that sales forecast seems to be designed with an intention of projecting a false loss by increasing sales under highly subsidized categories and reducing sales under

subsidizing categories. For categories like BPL, domestic, agriculture, etc., 5-year CAGR is considered while for subsidizing categories like LT industries, Mines and Cement industries, and other HT industries; a CAGR of 3-4 years was considered without any explanation. CSPDCL has projected 10% increase in the number of consumers in HV-10 Industries related to renewable power, which is objectionable, as this category has only 1 consumer.

Further, it has been submitted that as per submissions on Page 57 of the Petition, BPL consumers are consuming 53.5 units/ month/ consumer at load factor of 72% while sales to BPL consumers is submitted as 40 units/ month/ consumer on Page 53 of the Petition. Further, load factor of BPL consumer is higher than power intensive industries. The projected figure of BPL consumers of 1799396 after considering target addition of only 10612 consumers in FY 2015-16 seems to be unrealistic. As per the average load of agriculture consumer approved by the Commission as 3.5 HP/connection the total connected load of agriculture consumer works out to only 974 MW and not 1030 MW as submitted in Page 57 of the petition.

Petitioner's Reply

CSPDCL submitted that the objections may be supported by adequate justification. The sales projections for FY 2015-16 have been submitted with detailed justification in the petition. The BPL, domestic and agricultural consumers are very low demand consumers and enter into the system at a very short notice. The increase in sales for these categories is dependent either on given target or previous trend. The sales of the subsidising categories are projected based on their applications to avail the supply of electricity. Sudden entry of such consumers is neither expected nor possible.

The 10% increase in consumption for a particular consumer category is a normal trend. No new consumers have been projected to be added in the said category and rather, this category has been proposed to be abolished.

There is no anomaly in the computation as submitted by the objector. The recorded load is always the contracted load while the consumers particularly of BPL category and domestic category tend to use more than contracted load. The contracted load of BPL category and domestic category does not have financial implications. The proposed addition of BPL consumers in FY 2015-16 is 109612, which was rectified in the TVS. The total connected load of agricultural consumers has been considered based on the trend of increase in contracted quantum. The average load per agricultural connection has decreased from 3.635 HP in FY 2008-09 to 3.487 HP in FY 2012-13 and thereafter, the same increased to 3.609 HP in FY 2014-15. The

increase in average load is attributable to the addition in connections. The average load for additional connections released has been increased by more than 1 HP during the period FY 2011-12 to FY 2013-14. The same increase has been expected for additional connections targeted to be released in FY 2015-16 to arrive at the cumulative figure of 1030 MW for agricultural connections.

Commission's view

In order to make more realistic sales projections, the Commission had considered the 11-month actual category-wise sales of FY 2014-15, The actual sales in FY 2014-15 have been higher than that projected by CSPDCL. The actual sales in FY 2014-15 have been considered as the base values, and appropriate category-wise growth rates have been considered, for projecting the category-wise sales for FY 2015-16, as elaborated in Chapter 7 of this Order.

2.5.23 Power Purchase Cost for FY 2015-16

Shri Shyam Kabra representative of Urla Industries Association has submitted that CSPDCL has stated that Marwa Unit 1 was commissioned in March 2014 and Unit 2 in June 2014. However, no such information was submitted by CSPGCL in its Petition. Also, as per State Energy Account report of FY 2014-15, no energy output is shown from Marwa Units. CSPDCL has considered average power purchase cost of Rs. 3.14 per unit from Korba West TPP (Extn.) but CSPGCL has submitted average price of Rs. 3.08 per unit in its Petition. CSPGCL has claimed a net generation of 3509 MU at normative PLF but CSPDCL has submitted a receipt of only 3351 MU before any transmission loss.

Further, CSPDCL has submitted increase in solar power purchase from 8.29 MU in FY 2013-14 to 85.39 MU in FY 2015-16 at Rs.6.50 per unit, without providing the complete details of such power purchase. Although the petitioner projects power purchase from solar at higher price, solar power is not actually procured.

Further, CSPDCL has submitted the average power purchase cost of NTPC Mouda as Rs.5.65 per unit whereas as per information of NTPC, the average rate of Mouda TPP is Rs.5.32 per unit with Rs. 3.75 per unit as energy charge and Rs. 1.57 per unit as fixed charge. Mouda TPP is a non-pit head plant and issue of coal transportation is pending with the Central Government, which may result in lower energy charge after resolving of issue.

Petitioner's Reply

Unit 1 of Marwa TPS was tested for full load capacity on March 30, 2014 and hence, the COD has been anticipated in FY 2014-15. The COD of Unit 2 has been inadvertently considered as June, 2014. Unit 2 was expected to achieve COD by June 2015 but has been delayed.

The tariff of Korba West (Extn.) has been considered as Rs. 3.14/kWh provisionally as informed by CSPGCL, as the tariff of the same is yet to be approved by the Commission. The energy availability has been projected considering 85% PLF and 10% auxiliary consumption.

CSPDCL submitted that the purchase of renewable energy is estimated as per the requirements of Regulations but during actual purchase if the available power is less than requirement then only available power is purchased and any reduction in cost of power purchase is passed on to consumers during truing up process. CSPDCL further submitted that purchase of power from solar plants is around 1% of total power purchase and does not affect the average cost of power purchase. The proposal of hike in tariff includes increase in overall cost of supply aggregating the small changes in each component.

Commission's view

While estimating the power requirement of CSPDCL, the Commission has projected the demand and availability from long-term sources. Power purchase cost for procurement of power by CSPDCL is regulated under Section 86(1) (b) of the Electricity Act, 2003 by appropriate Commission.. The short-term power purchase price of CSPDCL is also being regulated since FY 2005-06 and is subject to the maximum ceiling rates as specified by the Commission. As per mandate of the Act, distribution licensee is required to fulfil renewable purchase obligations also. The source-wise power purchase quantum and cost approved for FY 2015-16 for CSPDCL has been detailed in Chapter 7 of the order.

2.5.24 GFA addition in FY 2015-16

Shri Shyam Kabra representative of Urla Industries Association has submitted that prudence check has to be carried out while approving the GFA addition for CSPDCL for FY 2015-16.

Petitioner's Reply

CSPDCL submitted that for projection purposes, the asset addition has been considered in various asset categories on provisional basis. The asset addition is carried out after prudent requirement of such assets. All the procurement is carried out in a transparent manner to ensure minimum cost.

Commission's view

In accordance with the CSERC MYT Regulations, only the sales and power purchase costs for FY 2015-16 have been revised, and all other expenses, including the capitalisation and capital related expenses have been considered at the same level as approved in the MYT Order dated July 12, 2013, as elaborated in Chapter 7 of this Order.

2.5.25 Revenue from sale of surplus power

Shri Shyam Kabra representative of Urla Industries Association has submitted that the Commission in the Tariff Order for FY 2014-15 directed CSPDCL not to sell surplus power at less than Rs. 3.65 per unit and to back down the station in case there is no sale of power at that rate. Thereafter, vide an administrative letter, CSPDCL was allowed to sell surplus power even below Rs. 3.65 per unit but with an average realization of Rs.3.65 per unit. In the Review Petition filed by CSPDCL, the Commission after holding a public hearing allowed CSPDCL the same as intimated by administrative letter. It is objectionable that that a judicious order involving interest of large number of consumers has been changed by an administrative letter.

It has been further submitted that CSPDCL in its petition has requested the Commission to allow sale of surplus power at applicable market rate without any condition of average realization of Rs.3.65 per unit in order to maximize revenue through sale of surplus power. The objector requested the Commission to carry out the prudence check of the projections of CSPDCL regarding maximising the realisation from sale of surplus power.

Petitioner's Reply

CSPDCL submitted that the sale of electricity other than to retail consumers is not within the regulatory purview of the Commission. As electricity cannot be stored, the surplus energy has to be sold as and when available at the market realised rates. The availability of surplus energy is dependent on the consumption of the consumers and not on the licensee. The sale of surplus energy is always ensured to be sold with the

objective of maximising the revenue from such sale and to pass on the accrued benefit to the retail consumers.

Commission's view

The Commission has noted the submissions in this regard and has dealt with the issue appropriately in Chapter 7 of this Order. The Commission has considered the rate for sale of surplus power at an annual average rate of Rs. 3.50 per kWh which is based on actual average rates prevailing recently. It is clarified that CSPDCL may sell some surplus power even below Rs. 3.50 per unit but annual average realization for total surplus sale should be Rs.3.50 per unit in FY 2015-16.

2.5.26 Cost of extension lines

Shri Shyam Kabra representative of Urla Industries Association has submitted that the present provision of charging actual cost of extension lines from the consumer is causing great hardship to probable/existing consumers in rural areas. In several cases, it was found that the cost is so high that setting up a small/tiny industry is not feasible and even the extension of existing load for small quantum is unviable. Determination of actual cost is at the discretion of the concerned officer which results in corruption and revenue loss to CSPDCL. The objector requested the Commission to fix line affording charges on per HP basis to make the system transparent and feasible.

In compliance to the directives of the Commission, CSPDCL submitted a Report on average cost of extension of lines in rural and urban areas on November 26, 2013. Several discrepancies have been observed in the said Report.

Petitioner's Reply

CSPDCL submitted that the Commission has specified the supply affording charges of Rs. 2000/HP from January 1, 2014 for industries up to 25 HP demand with certain limitation on required extension of network. The said charges are related to Supply Code and hence need not be considered in the current regulatory proceedings.

Commission's view

The issue raised by the objector does not pertain to the current tariff proceedings for FY 2015-16.

2.5.27 Wrong estimation of installed load and sanctioned load

Shri D. B. Singh, representative of Idea Cellular Limited has submitted that wrong penal billing is being done at some mobile tower sites due to lack of information

about operations of the load of BTS system, PSU and battery charging system. The objector sought intervention in assessing the actual load of equipment based on actual maximum demand recorded by the meter as well as by the manufacturer. The objector requested that a circular be issued stipulating that a rectifier is not an energy consuming device and battery is not a load only to the tune of 5% of its rated current.

Petitioner's Reply

CSPDCL has not submitted any reply.

Commission's view

The issue raised by the objector does not pertain to the current tariff proceedings for FY 2015-16.

2.5.28 Interruptions in supply

SECR submitted that in FY 2014-15 there have been 72 interruptions amounting to 19.18 hours in traction substations leading to delays and heavy losses to Railways.

Petitioner's Reply

CSPDCL submitted that the interruptions in supply are not directly related to tariff. However, the same has been referred to ED, CSPDCL Bilaspur and ED (T&C), CSPDCL, Raipur separately for redressal of grievance.

Commission's view

The issue raised by the objector does not pertain to the current tariff proceedings for FY 2015-16. However, CSPDCL should ensure that the interruptions are minimised and the consumers get proper quality of supply.

2.5.29 Non-traction Tariff for Railways

SECR submitted that power supply for non-traction purpose is availed at LT (415 V) and HT (11 kV and 33 kV). Non-traction load of Railways is a mixed load. Bifurcation for domestic and commercial load is possible at LT level, which is charged at different tariffs. However, at HT level, tariff is the same for all types of loads. SECR further submitted that even for domestic load at HT level, Railways are paying more as compared to other domestic consumers. SECR requested separate tariff for Railway non-traction load, with subsidized tariff rates as Railways is a bulk consumer consuming 72.29 MU and availing HT supply at 34 points and LT supply at 285 points.

SECR also submitted that LT bills are received just before the last date of payment and Railways have to pay late payment charges. SECR requested the introduction of e-billing system to minimize late payment charges.

Petitioner's Reply

CSPDCL submitted that Railways can avail the residential HT/LT tariff for the exclusive use of employees for domestic purpose. However, as the nature of load is of mixed category, the higher applicable tariff shall only be applied and it is up to Railways to avail separate connections for exclusive purposes. The supply to other State/Central Govt. installations is also undertaken by CSPDCL in the same manner as to Railways. CSPDCL further submitted that therefore no such separate category can be carved out for Railway exclusively.

Commission's view

The Commission accepts the submission of CSPDCL in this regard, and has not made any changes to the tariff for Railways for non-traction load.

3. APPROACH OF THIS ORDER

3.1 MYT ORDER FOR FY 2013-14 TO FY 2015-16

The Commission, vide its Order dated July 12, 2013 approved the Multi-Year ARR for FY 2013-14 to FY 2015-16 for CSPGCL, CSPTCL and CSPDCL along with retail tariff for CSPDCL for FY 2013-14.

3.2 TARIFF ORDER FOR FY 2014-15

The Commission, vide its order dated June 12, 2014, approved the final true up for FY 2011-12 and FY 2012-13 for CSPGCL, CSPTCL and CSPDCL, final true up for FY 2010-11 to FY 2012-13 for SLDC, along with retail tariff for CSPDCL for FY 2014-15.

3.3 CSERC MYT REGULATIONS, 2012

Regulation 5.7(b) of the CSERC MYT Regulations, 2012 specifies as under:

“After first year of the control period and onwards, the yearly petition shall comprise of:

i. Generation and Transmission business – Truing up for preceding year(s).

The STU/transmission licensee shall file proposal for determination of transmission charges for the short term open access customers along with true-up petition.

ii. For Distribution Wheeling and Retail Supply Business –

1. Truing up for preceding year(s).

2. Revised power purchase quantum/cost (if any), with details thereof, for the ensuing year.

3. Revenue from existing tariffs and charges and projected revenue for the ensuing year.

4. Application for re-determination of ARR for the ensuing year along-with retail tariff proposal.”

Hence, in accordance with Regulation 5.7(b) of the CSERC MYT Regulations, 2012, the Commission has carried out the final true up for FY 2013-14 for CSPGCL, CSPTCL and CSPDCL and re-determined the ARR for CSPDCL for FY 2015-16 to the extent of revised power purchase quantum and cost. And in accordance with CSERC SLDC fee and charges, Regulations, 2012, the Commission has carried out the final true up for FY 2013-14 for SLDC. Based on the approved revised ARR for

FY 2015-16, the revenue from the existing tariffs and charges, and the resultant revenue gap, the Commission has determined the retail tariff for CSPDCL for FY 2015-16.

Regulation 10 of the CSERC MYT Regulations, 2012 specifies as under:

“10. TRUING-UP

10.1 Where the Aggregate Revenue Requirement and expected revenue from tariff and charges of a Generating Company or STU or Transmission Licensee or Distribution Licensee is covered under a Multi-Year Tariff framework, then such Generating Company or STU or Transmission Licensee or Distribution Licensee, as the case may be, shall be subject to truing up of expenses and revenue during the Control Period in accordance with these Regulations.

10.2 The Generating Company shall file an application each year during the Control Period for truing up of its generating stations of the previous year(s) and determination of revenue gap/surplus for the ensuing year, within the time limit specified in these Regulations. The STU/Transmission Licensee shall file application for truing up of the previous year and determination of revenue gap/surplus for the ensuing year, within the time limit specified in these Regulations. The Distribution Licensee shall file an application for truing up of the previous year(s) and determination of tariff for the ensuing year, within the time limit specified in these Regulations:

Provided that the generating company or STU/transmission licensee or distribution licensee, as the case may be, shall submit to the Commission information in such form as may be prescribed by the Commission, together with the Audited Accounts, extracts of books of account and such other details as the Commission may require to assess the reasons for and extent of any variation in financial performance from the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges.

...

10.4 The scope of the truing up shall be a comparison of the performance of the generating company or STU/transmission licensee or distribution licensee with the approved forecast of Aggregate Revenue Requirement and expected revenue from tariff and charges and shall comprise of the following:

- (a) a comparison of the audited performance of the applicant for the previous financial year(s) with the approved forecast for such previous*

financial year(s), subject to the prudence check including pass-through of impact of uncontrollable factors;

(b) Review of compliance with directives issued by the Commission from time to time;

(c) Other relevant details, if any.

10.5 The net financial impact of true-ups shall be accounted for as per the provisions of Regulation 12 and Regulation 13 considering the factors like inflation, natural calamity etc. by the Commission. The net financial impact shall be passed on annual basis..... ”

The Commission has carried out the final true up for FY 2013-14 for CSPGCL, CSPTCL and CSPDCL in accordance with the provisions of Regulation 10 of the CSERC MYT Regulations, 2012 and for disposing SLDC's petition, Commission has followed the CSERC SLDC fee and Charges Regulations, 2012.

3.4 ARR FOR KORBA WEST TPP (EXTN.) FOR FY 2015-16

CSPGCL has filed for true-up of ARR for FY 2013-14 and determination of ARR and tariff for Korba West TPP (Extn.) for FY 2015-16, which was commissioned on September 5, 2013, in accordance with CSERC MYT Regulations, 2012.

It has also to be mentioned that CSPGCL has filed a separate Petition No. 8 of 2015 for approval of revised capital cost for Korba West TPP (Extn.). As the Commission's order on the said petition has not yet been issued, the Commission has carried out the provisional true up for Korba West TPP (Extn.) for FY 2013-14 and provisionally approved the ARR and tariff for FY 2015-16 in this Order.

3.5 ARR FOR MARWA TPS FOR FY 2015-16

CSPGCL has not filed any petition for approval of annual fixed cost and energy charge as the plant yet to achieve commercial operation. As CSPDCL has submitted availability of power from Marwa TPS during FY 2015-16 and considering the submission of CSPDCL, the Commission has estimated power purchase from this plant during FY 2015-16. Therefore, Commission is determining provisional tariff for Marwa TPS.

4. FINAL TRUE UP OF ARR FOR CSPGCL FOR FY 2013-14 AND DETERMINATION OF ARR FOR KORBA WEST TPP (EXTN.) AND MARWA TPS FOR FY 2015-16

4.1 INSTALLED CAPACITY

The installed capacity of conventional power stations of CSPGCL covered under the regulatory purview of CSERC MYT Regulations, 2012 is as shown in the Table below:

Table 4.1-1: Installed Capacity of conventional power stations of CSPGCL as on March 31, 2015

Sr. No.	Station	Unit configuration	Installed Capacity (MW)
1	KTPS – Korba Thermal Power Station, Korba (East)	4x50 MW + 2x120 MW	440
2	HTPS – Hasdeo Thermal Power Station, Korba (West)	4x210 MW	840
3	DSPM, TPS, Korba	2x250 MW	500
4	Korba West TPP (Extn.)	1x500	500
	Total Thermal		2280
5	HBPS – Mini Mata Hasdeo Bango Hydro Power Station	3x40 MW	120
	Total CSPGCL (Conventional)		2400

Further, Korba West TPP (Extn.) generating station of 500 MW capacity was commissioned on September 5, 2013. Thus the total installed capacity of conventional power stations of CSPGCL is 2400 MW at the end of FY 2014-15.

4.2 KEY ISSUES

4.2.1 Backing Down Instructions (BDIs) by SLDC

CSPGCL's submission

CSPGCL submitted that in FY 2013-14, 340 BDIs have been issued to HTPS, 104 BDIs have been issued to KTPS, 350 BDIs have been issued to DSPM, and 200 BDIs have been issued to Korba West TPP (Extn.). CSPGCL has computed the actual energy availability from its stations for FY 2013-14 by considering the loss in generation due to backing down.

Commission's Analysis

The Commission asked CSPGCL to submit the certificate given by SLDC for BDIs issued to its generating stations in FY 2013-14. CSPGCL submitted the copies of letters written by SLDC to CSPGCL certifying the actual backing down of its stations for each month in FY 2013-14 with details of capacity of backing down, duration of backing down, reasons for backing down, etc. Based on the details provided for BDIs, the Commission has considered the loss in generation on account of backing down as submitted by CSPGCL and considered the same while computing the sharing of gains and losses in accordance with the approach adopted in previous orders.

CSPGCL submitted that apart from the issue of BDIs, some station specific issues have been encountered in FY 2013-14 as detailed below:

4.2.2 NAPAF for KTPS for FY 2013-14

The Commission observes that CSPGCL has used NAPAF and PLF interchangeably in its submissions. The Commission clarifies that in the MYT Order, NAPAF was approved for CSPGCL's stations for FY 2013-14. CSPGCL has added the loss in generation due to backing down to the actual ex-bus generation and derived the effective PLF.

CSPGCL's submission

CSPGCL submitted that the NAPAF for KTPS was approved as 78.50% based on the weighted average target of 83.10% for PH II and 74.64% for PH III from a study carried out by CPRI. The NAPAF was determined by taking into account the capacity in operation for the period of study during which Unit 6 was under outage. CSPGCL submitted that the same has been acknowledged by the Commission in the MYT order. The inherent problems associated with the Units of 120 MW series is experienced in other stations also like Chandrapura (DVC), Dhruvan, Harduaganj, Obra, Amarkantak, etc. The same is also evident from the report of Central Electricity Authority (CEA) on performance of power stations. CSPGCL submitted that in FY 2013-14, all four units of PH II were subjected to routine annual overhaul (AOH). As per the annual average planned outage required for different sized Units as per the Kukde Committee report, the normal outage period for PH II and PH III is 28 days and 33 days, respectively. The effective NAPAF for KTPS based on the same works out to 67.89%.

CSPGCL submitted that in FY 2013-14, units 5 and 6 underwent crucial maintenance needed for plant safety. Unit 5 was under capital maintenance for a period of 89 days

from September 7, 2013 to December 5, 2013, while unit 6 was under major TG repair work for 38 days from April 1, 2013 to May 8, 2013.

CSPGCL submitted that unit 5 and unit 6 were put into commercial operation on July 29, 2005 and January 22, 2004, respectively, after refurbishment. CSPGCL submitted that no Capital Overhaul (COH) had been carried out prior to refurbishment. By renovation, the effect of ageing in the form of creep and fatigue cannot be fully negated. The thermal stresses lead to changes in lattice structures, which cannot be completely reversed. Even with the stress relieving techniques, some hysteresis effect tends to remain in place. Hence, although Renovation and Modernisation results in life extension of 10-15 years, Residual Life Assessment (RLA) is required at the end of every five years. With inherent design constraints and with prematurely weak metallographic phenomena due to various operational stresses, the critical TG components are highly susceptible for crucial failures. Thus, even after Renovation and Modernization, comprehensive health restoration is required in every five years.

Unit 5 had completed 5 years service after refurbishment by 2010. It started showing disturbing trends in terms of bearing vibrations, eccentricity, axial shift and differential expansion. BHEL was consulted and it was necessitated to undertake thorough capital overhaul. After approval of the Commission in the business plan order, process for procurement of critical spares was initiated. As 120 MW units are not in production now, procurement of spares also is a tedious and time taking task, which was also apprised to the Commission in the business plan petition for the control period from FY 2010-11 to FY 2012-13. With BHEL reluctant to take up the jobs related to 120 MW sets, competent agencies had to be identified and accordingly COH was undertaken in FY 2013-14. Major repair works like replacement of IP Rotor, replacement of HP nozzle box, etc., were undertaken.

During COH, inspection and maintenance of generator rotor was also undertaken. After removal of retaining ring, overheating / hot spots were observed in insulation of rotor winding at overhang portion. Damage of damper winding was also observed. Re-insulation of overheated, overhang portion of rotor windings at both the ends of rotor and replacement of damaged damper winding was necessitated for proper rectification of fault. Replacement of damper winding was un-expected and hence, an urgent order was placed for procurement of damper windings. After replacement of damper windings and re-insulation of both end overhang rotor windings, balancing of rotor was also undertaken. Though the generator winding damage might not have caused immediate failure but if the same would not have been attended at that time, it might have caused a long outage in the near future. Assembly of generator in all

aspects was completed by December 3, 2013 and clearance was given to operation for hydrogen filling in generator.

CSPGCL submitted that considering the extent and complexity of the work involved, 89 days time is justified. As per standard industry practice, the works related to diaphragm and blades repairing, etc., are generally carried out at OEM/agency workshops, which take minimum 4 months, while in the instant case, resources were mobilized and all works were carried out at the plant site itself.

CSPGCL submitted that taking into account the outages, the effective NAPAF target works out to 61.65% and that the effective target of 61.65% should be applicable instead of 67.89%, depending on the merits of the case for such extended maintenance periods.

CSPGCL submitted that the COH of unit 6 could not be carried out in due time after refurbishment. The jamming of generator rotor was observed and the unit was out of service for 38 days for COH. Many abnormalities have been observed in HP Turbine, IP turbine, LP turbine, generator, barring gear, etc., and remedial actions were undertaken for rectifying the same.

CSPGCL requested the Commission to consider the specific issues as stated above in approving the NAPAF for KTPS for FY 2013-14. CSPGCL submitted that the NAPAF approved in the MYT order was based on the performance of the units in operation during the period of study and hence, the same cannot be adopted for the total installed capacity. The NAPAF for PH II considering the outage period of 28 days works out to 76.73%. The NAPAF for PH III works out to 61.65% considering the major overhauling works carried out in FY 2013-14. Hence, the weighted average NAPAF for KTPS for FY 2013-14 works out to 56.83%.

CSPGCL submitted that the actual NAPAF for PH II is 59.02% as against the target of 76.73% and for PH III is 55.01% as against the target of 61.65%. The large deviation in terms of % achievement of target indicates that there are strong technical reasons affecting the two powerhouses based on their design considerations and are not on account of administrative/managerial reason.

Commission's Analysis

The Commission has scrutinised the submissions of CSPGCL. The Commission does not find merit in the submissions of CSPGCL regarding the revision of NAPAF for KTPS for FY 2013-14. The Commission in the MYT Order ruled as under:

“10.2.1.2 KTPS – Korba East

...

*In order to estimate the achievable NAPAF of the KTPS Korba East Power Stations, PLF of both Units of 120 MW as 74.64% and four Units of 50 MW as 83.1% has been considered and accordingly, the weighted average PLF works out to 78.49%. For FY 2012-13, the benchmark PLF was 78.5%, as such the Commission decides to continue the same for the MYT Control Period.... It is noted that during the period of study, unit No. 6 (120 MW) was under outage. **Unlike other parameters, which don't get affected by the outage of the other unit**, auxiliary consumption has a steep tendency to go up as there are always some common facilities which are to be shared by the lone unit in service. The study data also corroborates the same... ” (emphasis added)*

Regulation 39.5 of CSERC MYT Regulations, 2012 specifies as under:

“39.5 notwithstanding anything contained anywhere else, the norms of operation i.e. NAPAF, SHR, Station Heat Rate and Auxiliary Consumption for Korba East Thermal Station (KTPS), shall be decided by the Commission at the time of determination of MYT Tariff for the control period.”

In accordance with Regulation 39.5 of CSERC MYT Regulations, 2012, PLF was proposed in the MYT petition. In MYT tariff petition for 2013-16, CSPGCL had proposed NAPAF of 77.18% for all three years of the control period. In the true-up petition CSPGCL has submitted various reasons for not achieving the norms specified in the MYT order. It may be appropriate to analyse the actual performance regarding the PLF of KTPS.

Based on available data, the PLF trends for KTPS are as under:

Table 4.2-1: PLF Trend of KTPS

Year	Particulars	PLF as per Petition (%)	CSERC Approved PLF (%)	KTPS Achieved (%)
2007-08	PH II	85.75	86.55	87.13
	PH III	78.95	80.32	79.35
	Weighted average	83.48	84.47	84.54
2008-09	PH II	No petition filed		82.47
	PH III			79.31
	Weighted average			81.42
2009-10	PH II	80	84.00	80.07
	PH III	78	79.00	72.85
	Weighted average	79.33	82.33	77.66
2010-11		78.00	75.90	76.26
2011-12		78.25	78.25	79.14
2012-13		78.50	78.50	60.40
2013-14		77.18	78.50	56.96

From the above table it is observed that till FY 2011-12 the minimum PLF achieved by KTPS was in the year FY 2010-11 which was 76.26% and the maximum PLF achieved was in the year FY 2007-08 which was 84.54%. However, from the year FY 2012-13 the PLF has reduced abruptly. From the above table it is unambiguous that in some of the years the PLF achieved by KTPS was more than the norms specified in the tariff orders. It is difficult to understand that the operational stresses on the power units increased abruptly in a year and the metallographic changes deteriorated so much that PLF reduced from the minimum PLF achieved of 76.26% to 60.40% in 2012-13 and 56.96% in 2013-14. CSPGCL had proposed PLF of 77.18% for all the years of the control period based on this performance and the same was approved by the Commission. CSPGCL has also submitted a calculation according to which if the duration of outages is considered the weighted average NAPAF achievable works out to be 56.83%. The NAPAF or PLF specified as norm is always decided taking in to consideration planned and forced outage of a plant. Therefore, all the reasons submitted by CSPGCL for the longer duration of outage and overhaul can be attributed to managerial/operational efficiency, and are not technical reasons as stated by CSPGCL. It is observed that the sudden deteriorations in the parameters of the power station are due to operational inefficiency and the losses incurred due to this cannot be totally passed on to the beneficiaries. Various consumers have also made representations on the deteriorating trend of the thermal power station. The relevant extract from one of the representations received on the matter is reproduced below:

“In the recent years, generation of CSPGCL has deteriorated and expenses have increased, CSPGCL has to find a reason & solution to it as excuses are not going to help for a long”

Hence, the Commission has not revised the NAPAF for KTPS in the final true up for FY 2013-14

4.2.3 Normative auxiliary energy consumption for KTPS for FY 2013-14

CSPGCL’s submission

CSPGCL submitted the Commission has approved the auxiliary energy consumption for KTPS in the MYT Order based on the auxiliary energy consumption recommended by CPRI for PH II and PH III. CSPGCL submitted that considering the auxiliary energy consumption of 15.14% for PH II and 11.71% for PH III recommended by CPRI, the weighted average auxiliary energy consumption for the station works out to 12.38% whereas the Commission has approved 11.25%.

Commission's Analysis

As regards the auxiliary energy consumption for KTPS for FY 2013-14, the Commission in the MYT Order ruled as under:

“10.2.1.2 KTPS – Korba East

...

Unlike other parameters, which don't get affected by the outage of the other unit, auxiliary consumption has a steep tendency to go up as there are always some common facilities which are to be shared by the lone unit in service. The study data also corroborates the same. The auxiliary consumption for PH II has been computed to be lesser than the PH III, while as per past data and pleadings, when all units are in service, the reverse has been observed to be true. Therefore keeping in view the past performances and all the past submissions in this regard, the Commission decides the achievable auxiliary consumption as 11.25%. The said target will also account for excitation transformer consumption and other transformation losses (GT & Station Transformer). It is also noteworthy that as per petitioner own submission too, after taking into account the aforesaid additional loading (which has arisen due change in methodology) the 10.35% computed from the earlier formulae is equivalent to 11.25%...”

In the MYT petition, CSPGCL has proposed auxiliary consumption of 10.63%. When the petition was filed the CPRI reports on Study for Assessment of Achievable Performance Parameters like heat rate, auxiliary power consumption and Suggestion and Recommendations for their improvement of 1X120 MW Unit-5 and 1X50 Unit 4 were not available. After submission of the reports in March 2013, on due deliberation and taking in to consideration all the factors it was decided to fix auxiliary consumption at 11.25% which was higher than the auxiliary consumption submitted by CSPGCL in the petition. The norms specified in the MYT order were achievable targets. Similar to the sudden deterioration in other parameters, the auxiliary consumption exceeded the normative parameter. Hence, the Commission does not find the need to revise the normative auxiliary consumption for KTPS in the final true up for FY 2013-14.

4.2.4 Coal quality problems for KTPS

CSPGCL's submission

CSPGCL submitted that any machine is designed for certain input conditions. The output and efficiency varies with variations in the input conditions. For a thermal generating station, coal quality is the biggest factor, which affects the performance.

The impact of high ash content, low calorific value (CV) and high moisture has been well appreciated by the Bureau of Energy Efficiency (BEE) in its Guide book for Energy Auditors/ Managers. CSPGCL submitted that the impact of coal quality on the performance of the machine has been deliberated extensively in its various reports.

CSPGCL submitted that the PH II (4x50 MW) is designed for coal GCV of 3540 kcal/kg and ash content of 38.8%. Unit 5 of 120 MW is designed for coal GCV of 4445 kcal/kg and ash content of 35%. Unit 6 of 120 MW is designed for coal GCV of 3600 kcal/kg and ash content up to 42%. CSPGCL submitted that the actual weighted average GCV of coal fired in FY 2013-14 in KTPS is 3109 kcal/kg with ash content of 47.3%.

CSPGCL submitted that the coal to KTPS is supplied by SECL from Manikpur mines, an open cast mine. The coal quality received was much inferior to the desired level. The coal quality from a mine depends on the coal seam, which may come up during excavation, and being a geographical function, is uncontrollable for the generator. With fixed linkages, it is practically not open for a generator not to procure the coal from pit head mine and procure coal from other sources. Further, the MoEF guidelines also require that high ash content coal is to be used at pit head and better quality coal should be supplied to power stations situated far away from mines, so that ash is not transported to long distances. Thus, as per environment policy and practical constraints, the coal has to be procured as per the Fuel Supply Agreement (FSA).

CSPGCL submitted that the problem of inferior coal quality could be mitigated by blending with imported or washed coal but the facilities required for blending are not available with it. CSPGCL submitted that the creation of such infrastructure for blending coal would not be economically feasible as the station has already reached its fag end of life and space constraint at the station does not provide for the same. CSPGCL submitted that all the coal available to it under the FSA route has to be procured as per the terms of the FSA to avoid penalty/termination of the FSA. CSPGCL submitted that the inferior coal quality has affected the performance parameters of KTPS in FY 2013-14.

CSPGCL submitted that the inferior coal quality has effect on erosion of superheater/reheater/economiser. CSPGCL submitted that the erosion of tubes with high ash coal is of great concern. The material loss due to erosion is proportional to the total ash quantity and is an exponential function of flue gas velocity. The presence of huge silica and the alpha quartz content makes the ash very erosive in nature. The erosion finally culminates into the forced outages due to boiler tube failures. In the last five years, the number of trippings in a year has shown inverse trend in

comparison to GCV. With the lower GCV, the number of trippings has increased. Due to design difference, the affect in case of PH II is more severe than that in case of PH III. The boiler in Unit 5 has Ball and Race mills, which rejects the stones, whereas the 50 MW Units in PH II have drum type ball mills, which grinds coal and stone both. With no reject door, there is significant reduction in mill output, leading to partial loading. In FY 2013-14, from PH III mills about 800 M Cu rejects were taken out, while due to design constraint no reject could be taken out from PH II mills. CSPGCL submitted that the overloading of the mills leads to higher machine loading and the auxiliary energy consumption reduces in percentage terms. However, due to the design constraint in PH II, although the mill loading was higher, with reduced coal output, machine suffered from partial loading and this increased the auxiliary energy consumption for PH II.

CSPGCL submitted that the extraneous material has an impact on the performance parameters of the station. CSPGCL submitted that the coal from Manikpur mines is characterized with high extraneous material (stone and sand/clay). Higher the extraneous material content and its size in the incoming raw coal, higher is the Hardgrove Grindability Index (HGI) and lower is the wear life of pulveriser grinding elements as these higher density extraneous materials (quartz, clay, pyrites, etc.) do not leave the pulveriser until ground finer than the coal particles, thus causing the increased wear rate of the mill grinding elements and other mill wear parts. CSPGCL submitted that this reduces the mill output. CSPGCL submitted that due to design difference in PH II and PH III, the effect on performance of PH II was more severe.

CSPGCL submitted that the inferior coal quality has impact on the secondary oil consumption. In the combustion process, the coal particles are heated up rapidly in the initial PH leading to de-volatisation of the coal and rapid burning and heating up of the residual char and mineral matter content of the coal. This char combustion takes place at a relatively slower rate up to the end point of combustion. The stability of the flame front is dependent upon the amount of volatiles associated with the low temperature tar constituent of the coal. High ash level decreases the combustion stability of coal and call for oil for stabilizing the flame. The 50 MW Units are more affected by lower GCV of coal than the 120 MW Units due to the inherent design difference. The 50 MW Units have only one burner elevation, whereas the 120 MW Units have four elevations with total 16 burners. In case of lower GCV, the flame stability in the 50 MW Units becomes more severe than 120 MW Units. The actual secondary oil consumption for PH II is 4.89 ml/kWh and for PH III is 2.13 ml/kWh for FY 2013-14. The higher secondary oil consumption of KTPS is directly

attributable to the lower quality coal and the design limitation of old 50 MW Units, which are uncontrollable in nature.

CSPGCL submitted that inferior coal quality impacts the combustion behaviour and heat transfer. CSPGCL submitted that the ratio of Fixed Carbon to Ash is an important factor that affects the combustion behaviour. The lower this ratio, the poorer is the combustion behaviour. For a given mass of fuel, less amount of heat is generated and more amount of heat is spent on heating the non-combustible portion. From heating value aspect, the fixed carbon plays the most important role while volatile matter is important from the flame stability aspect. This leads to lesser rate of heating up of the particle, lower peak temperature and increased time for burning. The increase in the gas temperature is due to decrease in the burning intensity in the furnace caused by slow down of combustion or screening of the furnace walls from the hot centre combustion gases by an optically thick cold gas layer along the wall. Further, heat is retained in the ash and released slowly in the SH, RH and Economizer zone. Higher ash content affects the heat transfer profile between the radiative and convective sections of the boiler and leads to difficulty in attaining rated main steam and reheat steam temperatures. CSPGCL submitted that in FY 2013-14, the fixed carbon in percentage terms was less than half of ash content in percentage terms and this affected the Gross Station Heat Rate (GSHR). From the month-wise data of actual GCV of coal and actual SHR, it could be observed that the SHR has decreased with better GCV realisation.

CSPGCL submitted that the moisture content in coal de-rates the capacity of mills and requires higher quantum of heat for coal drying in the mill necessitating higher hot air temperature at mill inlet and also impacting performance of economizer and air pre-heater. In rainy season, as the coal from Manikpur mines contains high silica, it causes severe choking at various chutes and raw coal bunker outlet resulting in partial loading of machines and requires high secondary oil support.

CSPGCL submitted that higher ash content coupled with low sulphur, results in less resistivity requiring larger size of electrostatic precipitators. With a given set of electrostatic precipitator and bag filters, on one hand, the stack emissions tend to rise and on the other, the life of electrodes suffers. Inferior coal quality in FY 2013-14 resulted in higher stack emissions. CSPGCL submitted that it is exploring the possibilities for augmenting the Electrostatic Precipitator (ESP) to arrest the higher emissions.

CSPGCL requested the Commission to consider its submissions regarding the effect of inferior coal quality and approve the actual performance parameters and approve the actual cost in true up for FY 2013-14.

Commission's Analysis

The Commission has taken note of the submissions of CSPGCL. The Commission does not find it prudent to relax the performance parameters on account of the following reasons:

- a) The source of coal for KTPS has not changed in the recent past and was the same even when the norms were specified. The difference in the type of coal mills in PH II and PH III is also not a new development. The station has been operating with units commissioned more than 40 years ago. After refurbishment also performance parameters of the station reflect the quality of coal fired in the station; hence, it would not be appropriate to revise the norms based on coal quality issues.
- b) The Commission in the MYT Order ruled as under:

“10.2.1.2 KTPS – Korba East

...

For SHR, the weighted average SHR computed based on the recommendations of CPRI works out to 3107.78 kcal/kWh. Accordingly, taking into account the CPRI report and past data, the Commission has approved SHR of 3110 kcal/kWh (rounded off to nearest value of multiple of 10). CPRI study has not made any comment on Specific oil consumption and Transit loss. Based on three year average CSPGCL has prayed for 2.03 ml/ kWh. Commission notes that in FY 2012-13 the allowed Specific Oil consumption was at 2.0 ml/ kWh, which the Commission decides to continue the same. Similarly the transit loss is allowed at 1.15% which was the value allowed for FY 2012-13.”

- c) The Commission has clearly analysed its observations in approving the performance parameters for KTPS for the control period from FY 2013-14 to FY 2015-16. The performance parameters approved for KTPS for FY 2013-14 to FY 2015-16 were based on the actual performance parameters in the previous years and the study conducted by CPRI. Hence, the issue of coal quality from the allocated fuel source to the station have been duly considered

by the Commission in approving the normative performance parameters for the control period FY 2013-14 to FY 2015-16. The Commission does not find merit in CSPGCL's submission that it is obligated to procure coal with high ash content in accordance with MoEF Guidelines. The Commission stresses that the MoEF Guidelines, if any, would not make CSPGCL constrained to procure coal of inferior quality at the cost of the consumers. CSPGCL could always take up the issue of inferior coal quality at the highest level in its own best interest. It is true that the station has reached the fag end of its life but as on date no plan to shutdown the station has been submitted. The power requirement of the State is partly fulfilled from the station and it is in the best interest of all the stakeholders that the station is operated with prudent utility practices.

- d) In tariff order for 2009-10 also, CSPGCL was directed to take up the issue of coal quality with appropriate agencies. The Commission further directs CSPGCL to take up the issue of inferior coal quality at the highest level and apprise the Commission regarding the steps taken and the effectiveness of such measures.
- e) As per the Judgment of the Hon'ble ATE dated 19 April, 2012 in Review Petition No. 9 of 2011 in Appeal No. 199 of 2010, the quality of coal is not totally beyond the control of utility. CSPGCL should strive to improve the performance of its station by arriving at cost effective solution.

Hence, the Commission has not relaxed the normative performance parameters for KTPS in the final true up for FY 2013-14.

4.2.5 Outage of Unit 1 of DSPM

CSPGCL's submission

CSPGCL submitted that the generation in DSPM suffered on account of accidental forced outage of Unit 1 during the period from February 10, 2013 to December 16, 2013 due to failure of balancing leak off line. DSPM is being operated efficiently conforming to good engineering practice. Unit 1 of DSPM encountered a sudden accident on February 10, 2013. The "balancing leak off line", which takes the high pressure steam to the other side of the balancing disc and thus balances the thrust acting along the axis of the rotor, burst, and resulted in severe damage to the High Pressure Module and Intermediate Pressure Module of the Turbine. The devastating damage to the turbine resulted in total outage of the Unit. Due to the extensive damage, the Unit remained out of service up to December 16, 2013. CSPGCL

submitted that the sequence of events as recorded by Distributed Control System (DCS) showing the time, Load and the Cold Re-Heat (CRH) pressure make it amply clear that Unit was running well within parameters. The whole incident from start of problem to manual “Emergency Turbine Trip” (HMI trip) took less than one minute. In the situation of failure of the automatic protection systems, operation staff took control of the situation and hand tripped the machine through manual interface in just 53.559 seconds avoiding catastrophic damage.

The “balancing leak off pipe” is a static piece of piping, which is completely insulated and sealed and as per standard industry practice it is not subjected to any routine maintenance during the life of the plant. The failure is solely attributable to an unprecedented and unforeseeable material failure. Prompt action has been initiated for the restoration of the Unit at the earliest possible. The order for repair of Modules was placed on BHEL, which are the Original Equipment Manufacturer (OEM) and the sole organization in India having the requisite know-how. However, as repairing of such Modules is a very complicated and time consuming process, it was expected that with the best efforts, the repaired modules would have reached by March/April 2014. Further, in search of spare Modules, many utilities were contacted, but no matching spare module could be traced. During the process after pursuance at highest level, an order was placed on BHEL on urgent basis for HP and IP Modules of similar specification being manufactured for another project. The machine was restored to full load again in December 2013. CSPGCL submitted that the actions taken by it for procurement of the new Modules have resulted in bringing back the Unit at least 3-4 months ahead of the anticipated time. CSPGCL requested the Commission to consider the outage as “long outage due to uncontrollable factors” and allow recovery of full fixed cost.

Commission’s Analysis

As regards the outage of unit 1 of DSPM, the Commission asked CSPGCL to submit the following:

- Supporting documents regarding the findings of the equipment supplier/investigation team on the reasons for failure of “balancing leak off pipe”.
- Whether any liquidated damages/penalty has been levied on the supplier
- Supporting documents for correspondence with suppliers for repair of “balancing leak off pipe”.

CSPGCL submitted the copies of statements of operation/maintenance engineers, DCS graphs and data sheets indicating the operational parameters before and at the time of the failure, Material Test Reports, photographs of damages, preliminary report of BHEL dated February 16, 2013 and Minutes of Meeting between BHEL and CSPGCL dated February 18, 2013.

CSPGCL submitted that the liquidated damages/penalty is not applicable in the instant case but defect liability clause of the contract has been lodged with BHEL and submitted the copy of the same. CSPGCL submitted that despite continuous follow up with BHEL, the claim has not been settled yet.

CSPGCL submitted the copies of correspondence with BHEL regarding the repair of “balancing leak off pipe” and the final work order issued dated June 25, 2013.

The Commission has scrutinised the material placed on record. The Commission understands that the damages for failure of “balancing leak off pipe” are covered under the defect liability clause of the contract. If the recovery of full fixed cost is allowed at actual availability as claimed by CSPGCL, it would lead to undue burdening of the consumers as the damages are already covered under the contract. The Commission does not consider it prudent to allow the recovery of full fixed cost as claimed by CSPGCL. Hence, the Commission has considered reduction in AFC for DSPM for FY 2013-14 in accordance with the CSERC MYT Regulations, 2012.

4.2.6 Normative transit and handling loss for DSPM

CSPGCL’s submission

CSPGCL submitted that the Commission, in the MYT Order, has approved the transit and handling loss for DSPM as 0.30% which is the norm specified in CSERC MYT Regulations, 2012 for pit head generating stations. The generating station does not have any dedicated transportation system but coal is being transported from the mine to the generating station by means of Railways and hence, DSPM need to be considered as non-pit head generating station. The Notification of Government of India dated January 2, 2014 defines pit head generating station as the station with captive transportation system for its exclusive use for transportation of coal from the loading point at the mining end up to the unloading point at the power station without using normal public transportation system. CSPGCL requested the Commission to treat DSPM as non-pit head generating station in allowing transit loss.

Commission’s Analysis

As regards the normative transit and handling loss for DSPM for FY 2013-14, the Commission highlights that CSPGCL itself has proposed the transit and handling loss

for DSPM as 0.30% in its MYT Petition. CSPGCL has not sought review of the transit loss approved for DSPM in the MYT order, thus allowing the same to attain finality. Hence, the Commission does not find it prudent to revise the normative transit and handling loss for DSPM for FY 2013-14.

4.2.7 Actual generation from HBPS for FY 2013-14

CSPGCL's submission

CSPGCL submitted that the actual gross generation of HBPS for FY 2013-14 was lower than that approved by the Commission in the MYT Order. The generation from HBPS is dependent on water release by Water Resource Department (WRD), which is beyond the control of CSPGCL. The machines have not suffered from any abnormal outages in FY 2013-14.

Commission's Analysis

The Commission asked CSPGCL to submit the actual details of yearly rainfall during the last 10 years, yearly release of water by WRD and yearly gross generation.

CSPGCL submitted that Hasdeo Bango Dam is a multi-purpose dam under the control of WRD GoCG. The water release from the dam is regulated by WRD based on the need and planned activities. The actual gross generation for the past 10 years is as shown in the Table given below:

Table 4.2-2: Actual gross generation from HBPS

Sr. No.	Year	Gross Generation (MU)
1	FY 2004-05	374.94
2	FY 2005-06	358.57
3	FY 2006-07	358.71
4	FY 2007-08	221.51
5	FY 2008-09	260.02
6	FY 2009-10	214.32
7	FY 2010-11	125.99
8	FY 2011-12	314.09
9	FY 2012-13	301.49
10	FY 2013-14	237.68

CSPGCL submitted that the units 1 and 3 were available throughout the year in FY 2013-14 and unit 2 was under annual overhaul (AOH) from April 1, 2013 to May 25, 2013, during which water was not released through dam gate operations. CSPGCL

submitted that there was no loss of generation on account of non-availability of units. CSPGCL submitted the letter of the Executive Engineer of Hasdeo Bango Dam certifying that the gates of the dam had not been opened during the period April 1, 2013 to May 25, 2013.

The Commission acknowledges that the water release from the Hasdeo Bango Dam is regulated by WRD, GoCG. As the water release from the dam is not within the control of CSPGCL, the Commission has considered the actual generation from HBPS for FY 2013-14 as submitted by CSPGCL.

4.2.8 Performance parameters for Korba West TPP (Extn.) for FY 2013-14

CSPGCL's submission

CSPGCL submitted that the following teething problems have been experienced in Korba West TPP (Extn.) in FY 2013-14 during the initial operation period:

- Commissioning, calibration and integrated trials for stabilisation of subsystems resulted in partial loading and inadvertent trippings.
- Fluctuations of load resulted in increased fuel oil consumption to avoid flame failure and tripping of the Unit.
- Low coal availability

CSPGCL submitted that in spite of the operational constraints, only some of the norms of operation for Korba West TPP (Extn.) are slightly higher than the normative values. CSPGCL requested the Commission to consider the reasons stated above as uncontrollable and allow the actual performance parameters by exercising Regulation 77 (Power to Relax) and Regulation 79 (Power to Remove Difficulty) of CSERC MYT Regulations, 2012.

Commission's Analysis

As regards the deviations in norms of operation for Korba West TPP (Extn.) in FY 2013-14, the Commission is of the view that the CSERC MYT Regulations, 2012 do not give any scope for inferior operational norms during the synchronisation period after COD. Further, CSPGCL has not submitted the Performance Guarantee Test Reports for Korba West TPP (Extn.). Moreover, the Commission is of the view that the norms of operation cannot be relaxed by placing reliance on the actual performance for a limited period. Hence, the Commission has considered the norms of operation for Korba West TPP (Extn.) for FY 2013-14 in accordance with CSERC MYT Regulations, 2012.

As the Commission has carried out only the provisional truing up for FY 2013-14 for Korba West TPP (Extn.) in this Order, the Commission has not considered the sharing of gains/losses for deviations in performance parameters for Korba West TPP (Extn.) for FY 2013-14. The Commission shall consider the same in the final truing up exercise, once the final capital cost is approved by the Commission on a separate Petition filed by CSPGCL.

4.3 NORMS OF OPERATION

4.3.1 Norms of operation

CSERC MYT Regulations, 2012 specifies the following as norms of operation for generating stations:

- Plant Availability Factor
- Auxiliary Energy Consumption
- Gross Station Heat Rate
- Secondary fuel oil consumption
- Transit and handling losses

The Commission in its MYT Order for FY 2013-14 approved the norms of operation for CSPGCL's stations for FY 2013-14. As against the same, CSPGCL submitted the actual parameter of operation for its stations for FY 2013-14 along with reasons for deviations in parameters of operation in comparison to that approved by the Commission in the MYT Order.

CSPGCL's submissions regarding the reasons for deviations in norms of operation and Commission's ruling on the same are elaborated in the following paragraphs.

4.3.2 Normative Annual Plant Availability Factor

CSPGCL's submission

The Commission in the MYT Order has approved the NAPAF for CSPGCL's stations, except Korba West TPP (Extn.) for FY 2013-14. As against the same, CSPGCL has submitted the actual Plant Availability Factor for its stations as shown in the Table below:

Table 4.3-1: Actual Plant Availability Factor for FY 2013-14 as submitted by CSPGCL

Station	NAPAF	Actual PAF
KTPS	78.50%	56.96%
HTPS	83.00%	83.45%
DSPM	85.00%	61.74%
Korba West TPP (Extn.)	85.00%	67.24%

CSPGCL submitted that the actual Plant Availability Factor for KTPS is lower than NAPAF on account of outage due to major overhauling works. The actual Plant Availability Factor for DSPM for FY 2013-14 is lower than NAPAF on account of backing down and forced outage of Unit 1. The actual Plant Availability Factor for Korba West TPP (Extn.) for FY 2013-14 is lower than NAPAF as per CSERC MYT Regulations, 2012 on account of backing down and unstable operations.

Commission's Analysis

The Commission asked CSPGCL to submit the SLDC's certificate for actual Plant Availability Factor for its stations for FY 2013-14, which was submitted by CSPGCL.

As detailed in the preceding paragraphs, the Commission has not considered the reasons submitted by CSPGCL for relaxing the NAPAF for its stations for FY 2013-14, and has considered the NAPAF for CSPGCL's stations as approved in the MYT order, as shown in the Table below:

Table 4.3-2: Plant Availability Factor for FY 2013-14 approved by the Commission

Station	NAPAF	CSPGCL Petition	Approved PAF
KTPS	78.50%	56.96%	78.50%
HTPS	83.00%	83.45%	83.00%
DSPM	85.00%	61.74%	85.00%
Korba West TPP (Extn.)	85.00%	67.24%	85.00%

4.3.3 Auxiliary Energy Consumption

CSPGCL's submission

The Commission in the MYT Order has approved the auxiliary energy consumption for CSPGCL's stations, except Korba West TPP (Extn.) for FY 2013-14. As against the same, CSPGCL has submitted the actual auxiliary energy consumption for its stations as shown in the Table below:

Table 4.3-3: Actual auxiliary energy consumption for FY 2013-14 as submitted by CSPGCL

Station	MYT Order	Actual
KTPS	11.25%	13.33%
HTPS	9.70%	9.85%
DSPM	9.00%	7.76%
HBPS	1.00%	0.67%
Korba West TPP (Extn.)	-	5.73%

CSPGCL submitted that there were a very high number of backing down instructions from SLDC and this resulted in increase in auxiliary consumption in percentage terms for some of the stations.

CSPGCL submitted that as some BOP works of Korba West TPP (Extn.), which attained COD on September 5, 2013, were in progress, some of the facilities of HTPS were utilised as emergency stopgap arrangement. These included use of ash handling system and CHP. This resulted in recording of auxiliary consumption on such facilities in the HTPS account while benefits were shared by the old plant and the new plant both. This resulted in slightly higher auxiliary consumption than normative value for HTPS while Korba West TPP (Extn.) recorded slightly lower auxiliary consumption than the normative value. CSPGCL submitted that point-to-point bifurcation of energy consumption by each of such facility is not possible and hence for sake of authenticity, values as measured have been relied without any hypothetical adjustments.

Commission's Analysis

The Commission asked CSPGCL to submit the justification for higher auxiliary consumption for some of its stations.

CSPGCL submitted that the copper losses of auxiliaries such as Generator Transformer, Unit Auxiliary Transformer are directly proportional to loading of the unit and as such losses are not very high, the auxiliary consumption in percentage terms remains almost constant. For auxiliaries like ID fan, FD fan, etc., the current drawn varies with the loading of the Unit and is optimum at particular loading. Hence, as the loading on the Unit decreases, the auxiliary energy consumption in percentage terms increases. For other auxiliaries like ash system (ash slurry pumps), cooling water system (CW pumps, BCW pumps, LP/ HP pumps, etc.), air system (air compressors, PA fan, SA fans, ID/FD fan – for low load relief, etc), Miscellaneous loads (lighting, AC & Ventilation, etc.) the auxiliary energy consumption practically remains constant and with lower generation, the auxiliary energy consumption in percentage terms increases.

CSPGCL submitted that for KTPS, the actual auxiliary energy consumption of PH II for FY 2013-14 is 15.14% as against the target of 12.98% and for PH III is 11.71% as against the target of 11.75%.

CPRI has concluded that at lower plant load factor the percentage of auxiliary consumption may be higher as compared to the higher plant load factor. As the actual plant load factor has declined the target of the auxiliary consumption norm could not

be achieved. Since the Commission has not revised the PLF and has adhered to the norms specified in the MYT order for sharing of gain and losses, the auxiliary consumption norms has not been reviewed in this order.

As regards the auxiliary energy consumption for Korba West TPP (Extn.), Regulation 39.4 of the CSERC MYT Regulations, 2012 specifies the normative auxiliary energy consumption of 6% for Unit size of 500 MW with steam driven boiler feed pumps and 8.50% for electrically driven boiler feed pumps. The Commission observes that CSPGCL has considered the normative auxiliary energy consumption for Korba West TPP (Extn.) as 6%. CSPGCL submitted that Korba West TPP (Extn.) has two steam driven boiler feed pumps and one electrically driven boiler feed pump. The Commission has considered the normative auxiliary consumption for Korba West TPP (Extn.) as 6%, as submitted by CSPGCL.

The Commission has considered the actual auxiliary consumption for FY 2013-14 as submitted by CSPGCL for the purpose of sharing of efficiency gains and losses. Further, the Commission has considered the normative auxiliary energy consumption for FY 2013-14, in the computation of normative net generation in the true-up for FY 2013-14, as shown in the Table below:

Table 4.3-4: Auxiliary energy consumption approved in true up for FY 2013-14

Station	MYT Order	Actual	Normative considered for true up
KTPS	11.25%	13.33%	11.25%
HTPS	9.70%	9.85%	9.70%
DSPM	9.00%	7.76%	9.00%
HBPS	1.00%	0.67%	1.00%
Korba West TPP (Extn.)	-	5.73%	6.00%

4.3.4 Gross Generation and Net Generation

CSPGCL's submission

The Commission, in the MYT Order, has approved the gross generation and net generation for CSPGCL's stations for FY 2013-14. As against the same, CSPGCL has submitted the actual gross generation and net generation for its stations as shown in the Table below:

Table 4.3-5: Gross Generation and Net Generation for FY 2013-14 (MU)

Station	MYT Order		Actual			
	Gross Generation	Net Generation	Gross Generation	Net Generation	Loss in generation due to backing down	Total Net Generation including backing down
KTPS	3025.70	2685.31	2190.62	1898.61	4.13	1902.75
HTPS	6107.47	5515.05	6084.36	5484.95	50.62	5535.57
DSPM	3723.00	3387.93	2638.04	2433.40	61.07	2494.47
HBPS	274.00	271.26	237.68	236.09	0.00	236.09
Korba West TPP	-	-	1646.67	1552.32	29.84	1582.16
Total	13130.17	11859.55	12797.37	11605.37	145.66	11751.03

Commission's Analysis

In reply to the Commission's query, CSPGCL submitted the SLDC's certificate for the actual ex-bus generation from its stations in FY 2013-14. The Commission observes that the actual ex-bus generation as submitted by CSPGCL is in line with the certification of SLDC. Hence, the Commission has approved the actual net generation as submitted by CSPGCL.

Further, the Commission has considered the gross generation and net generation at NAPAF and normative auxiliary consumption for computing the normative fuel cost for thermal generating stations. The normative gross generation and net generation considered by the Commission for true up of the fuel cost for thermal generating stations for FY 2013-14 is as shown in the Table below:

Table 4.3-6: Normative gross generation and net generation considered in true up of fuel cost for thermal generating stations for FY 2013-14

Station	Normative considered in true up of fuel cost for FY 2013-14	
	Gross Generation (MU)	Net Generation (MU)
KTPS	3025.70	2685.31
HTPS	6107.47	5515.05
DSPM	3723.00	3387.93
Korba West TPP (Extn.)	1646.67	1547.87
Total	14502.84	13136.16

4.3.5 Gross Station Heat Rate (GSHR)

CSPGCL's submission

The Commission, in the MYT Order, has approved the GSHR for CSPGCL's stations, except Korba West TPP (Extn.) for FY 2013-14. As against the same, CSPGCL has submitted the actual GSHR for its stations as shown in the Table below:

Table 4.3-7: Actual GSHR for FY 2013-14 as submitted by CSPGCL (kcal/kWh)

Station	MYT Order	Actual
KTPS	3110.00	3411.60
HTPS	2650.00	2668.82
DSPM	2500.00	2493.41
Korba West TPP (Extn.)	-	2668.00

CSPGCL submitted that the normative GSHR for Korba West TPP (Extn.) is 2424 kcal/kWh in accordance with Regulation 39.2 of the CSERC MYT Regulations, 2012. CSPGCL submitted that the actual heat rate was higher on account of the reasons submitted earlier, which were beyond reasonable control.

Commission's Analysis

The Commission asked CSPGCL to submit the justification for higher station heat rate for some of its stations.

CSPGCL submitted that the coal based thermal generating stations are designated as base load plants and are expected to run at constant loads and accordingly, the norms of operation are considered for such operations only. The part load operation of any machine results in degradation of its efficiency. The backing down instructions in FY 2013-14 led to increase in station heat rate for HTPS. CSPGCL submitted that the Standard Bidding Documents for Case 2 UMPP projects issued by Ministry of Power, Government of India have provided for increase in SHR for part load operations. CSPGCL submitted that CEA had recommended 1% higher SHR than the quoted SHR for dispatch below 85% of the ex-bus declared capacity. CSPGCL submitted that the increase in SHR for HTPS in FY 2013-14 is 0.70%, which is lower than 1% increase as recommended by CEA.

CSPGCL submitted that the Commission has approved the GSHR for KTPS for FY 2013-14 as 3110 kcal/kWh while the weighted average GSHR for the station considering the GSHR for PH II and PH III as recommended by CPRI works out to 3113 kcal/kWh. CSPGCL submitted that the actual SHR of PH II is 3512 kcal/kWh as against the target of 3209 kcal/kWh and of PH III is 3322 kcal/kWh as against the

target of 3014 kcal/kWh. CSPGCL submitted that the actual GSHR for KTPS was higher on account of coal related problems.

CSPGCL submitted that the GSHR of HTPS is more than normative on account of backing down. The Commission observes that though all the thermal generating stations have been subject to backing down in FY 2013-14, the actual GSHR of DSPM is well within the normative value. Hence, the Commission does not find merit in CSPGCL's request for considering the actual GSHR for HTPS considering the backing down instructions.

CPRI in its study has observed that present calorific value of this station is measured by using equation along with proximate analysis of coal. It was further observed that coal receipt measurement provision is made through in-motion weigh bridge but is not in service. CPRI had recommended to rectify the in-motion weigh bridge and belt weighers at conveyor belts to get accurate measurement of coal received which will have more impact on heat rate. It was suggested that calorific value of coal is to be measured by using automatic bomb calorie meter. It is pertinent to note that in tariff orders for FY 2005-06, FY 2006-07, FY2007-08 and FY 2009-10 it was repeatedly directed to install proper weightometers so as to correctly evaluate receipt of coal and quantity fed to boilers. Investments required for this purpose was also approved. In the tariff order for FY 2011-12 it was observed that weightometers were installed and had been functioning properly. However, study report of CPRI, which was conducted in March 2013 indicates that coal measurement of quantity of coal fed to boilers is again not measured properly. In absence of accurate measurement, GSHR cannot be measured properly.

As detailed in the preceding paragraphs, the Commission has not considered the coal quality problems as a prudent reason for relaxing the performance parameters for KTPS.

For Korba West TPP (Extn.), the Commission has considered the normative GSHR as submitted by CSPGCL in the true up for FY 2013-14, as the same are in accordance with the design parameters specified in the CSERC MYT Regulations, 2012.

Further, if the actual performance parameters, which are controllable in nature, are considered for true up irrespective of whether the actual performance parameters are better or worse in comparison to the normative performance parameters, then it would result in CSPGCL and the consumers forgoing their legitimate efficiency gain on account of better performance parameters and unilateral loading of the efficiency loss on the consumers on account of underperformance. Hence, the Commission has specified the mechanism of approving the normative parameters and sharing of gains

and losses for better/under performance in the Tariff Regulations, which shall have sanctity in the approval of final true up.

The Commission has approved the actual GSHR for FY 2013-14 as submitted by CSPGCL for the purpose of sharing of efficiency gains and losses. Further, the Commission has considered the normative GSHR for FY 2013-14, in the computation of normative fuel cost for FY 2013-14, as shown in the Table below:

Table 4.3-8: GSHR approved in true up for FY 2013-14 (kcal/kWh)

Station	MYT Order	Actual	Normative considered for true up
KTPS	3110.00	3411.60	3110.00
HTPS	2650.00	2668.82	2650.00
DSPM	2500.00	2493.41	2500.00
Korba West TPP (Extn.)	-	2668.00	2424.00

4.3.6 Secondary Fuel Oil Consumption (SFOC)

CSPGCL's submission

The Commission, in the MYT Order, has approved the SFOC for CSPGCL's stations, except Korba West TPP (Extn.) for FY 2013-14. As against the same, CSPGCL has submitted the actual SFOC for its stations as shown in the Table given below:

Table 4.3-9: Actual SFOC for FY 2013-14 as submitted by CSPGCL (kcal/kWh)

Station	MYT Order	Actual
KTPS	2.00	3.44
HTPS	1.00	0.74
DSPM	1.00	0.21
Korba West TPP (Extn.)	-	2.48

CSPGCL submitted that the SFOC for KTPS was higher than the normative due to coal quality related problems.

CSPGCL submitted that the normative SFOC for Korba West TPP (Extn.) is 1 ml/kWh in accordance with CSERC MYT Regulations, 2012. As against the same, the actual SFOC is higher on account of stabilisation issues.

Commission's Analysis

As detailed in the preceding paragraphs, the Commission has not considered the coal quality issues as a prudent reason for relaxing the performance parameters for KTPS.

The CSERC MYT Regulations, 2012 specifies the normative SFOC for Unit size of 500 MW as 1 ml/kWh. The Commission has considered the same in the provisional true up for Korba West TPP (Extn.) for FY 2013-14.

Further, if the actual performance parameters, which are controllable in nature, are considered for true up irrespective of whether the actual performance parameters are better or worse in comparison to the normative performance parameters, then it would result in consumers forgoing their legitimate efficiency gain on account of better performance parameters and unilateral loading of the efficiency loss on the consumers on account of underperformance. Hence, the Commission has specified the mechanism of approving the normative parameters and sharing of gains and losses for better/under performance in the Tariff Regulations, which shall have sanctity in the final true up.

The Commission has approved the actual SFOC for FY 2013-14 as submitted by CSPGCL for the purpose of sharing of efficiency gains/losses. Further, the Commission has considered the normative SFOC for FY 2013-14, in the computation of normative fuel cost for FY 2013-14, as shown in the Table below:

Table 4.3-10: SFOC approved in true up for FY 2013-14 (kcal/kWh)

Station	MYT Order	Actual	Normative considered for true up
KTPS	2.00	3.44	2.00
HTPS	1.00	0.74	1.00
DSPM	1.00	0.21	1.00
Korba West TPP (Extn.)	-	2.48	1.00

4.3.7 Transit and handling loss

CSPGCL's submission

The Commission, in the MYT Order, has approved the transit loss for CSPGCL's stations, except Korba West TPP (Extn.) for FY 2013-14. As against the same, CSPGCL has submitted the actual transit loss for its stations as shown in the Table below:

Table 4.3-11: Actual transit and handling loss for FY 2013-14 as submitted by CSPGCL

Station	MYT Order	Actual
KTPS	1.15%	1.26%
HTPS	0.30%	0.29%
DSPM	0.30%	0.39%
Korba West TPP (Extn.)	-	0.30%

CSPGCL submitted that the coal to Korba West TPP (Extn.) is fed from SECL mines through long distance coal conveyor and accordingly the normative transit and handling loss is 0.30% as specified for pit-head generating stations in CSERC MYT Regulations, 2012.

CSPGCL submitted that transit loss of 0.30% has been allowed in the MYT Order for DSPM, probably on the inference that DSPM TPS is a pit head power station. However, as DSPM TPS does not have any dedicated transport mechanism and rather uses normal public transportation system (i.e., Indian Railways), it needs to be considered as non-pit head power station. CSPGCL also referred to the Government of India notification dated January 2, 2014 regarding definition of pit-head power plant. CSPGCL submitted that the interpretation given to the term “pit head generating station” needs appropriate rectification at the time of true up.

Commission’s Analysis

CSPGCL has not submitted any reasons for higher transit and handling loss for KTPS.

As regards the transit loss for DSPM, the Commission has approved the same in the MYT Order, on which CSPGCL has neither filed any review nor preferred any appeal before higher authorities; hence, the Commission does not find it appropriate to review the transit loss for DSPM.

The Commission has approved the actual transit loss for FY 2013-14 as submitted by CSPGCL for the purpose of sharing of efficiency gains and losses. Further, the Commission has considered the normative transit loss for FY 2013-14, in the computation of normative fuel cost for FY 2013-14, as shown in the Table below:

Table 4.3-12: Transit and handling loss approved in true up for FY 2013-14

Station	MYT Order	Actual	Normative considered in true up
KTPS	1.15%	1.26%	1.15%
HTPS	0.30%	0.29%	0.30%
DSPM	0.30%	0.39%	0.30%
Korba West TPP (Extn.)	-	0.29%	0.30%

4.4 VARIABLE COST

4.4.1 Calorific Value of Fuels

CSPGCL’s submission

CSPGCL submitted the actual calorific value of fuels for its thermal power stations for FY 2013-14.

Commission's Analysis

The Commission has considered the actual calorific values of fuels for FY 2013-14 as submitted by CSPGCL, as shown in the Table given below:

Table 4.4-1: Calorific Values of fuels considered in true up for FY 2013-14

Station	Coal (kcal/kg)		Secondary Fuel Oil (kcal/L)	
	Actual	Considered in true up	Actual	Considered in true up
KTPS	3108.24	3108.24	10000	10000
HTPS	3764.08	3764.08	10000	10000
DSPM	3339.21	3339.21	10000	10000
Korba West TPP (Extn.)	3743.00	3743.00	10000	10000

4.4.2 Fuel Prices

CSPGCL's submission

CSPGCL submitted the actual fuel prices for its thermal power stations for FY 2013-14.

Commission's Analysis

The Commission has considered the actual prices of secondary fuel oil for FY 2013-14 as submitted by CSPGCL. The Commission has recomputed the landed price of coal considering the approved transit and handling loss for FY 2013-14. The fuel prices considered by the Commission in true up for FY 2013-14 is as shown in the Table given below:

Table 4.4-2: Fuel prices considered in true up for FY 2013-14

Station	Coal (Rs./MT)		Secondary Fuel Oil (Rs./kL)	
	Actual	Considered in true up	Actual	Considered in true up
KTPS	1110.91	1109.68	53611.82	53611.82
HTPS	1110.35	1110.43	60353.90	60353.90
DSPM	1095.23	1094.25	59822.85	59822.85
Korba West TPP (Extn.)	1168.11	1168.13	61,422.14	61,422.14

4.4.3 Fuel Cost

Commission's Analysis

Based on the approved performance parameters, calorific values of fuels and fuel prices, the Commission has computed the normative fuel cost for the purpose of

computing Interest on working capital for FY 2013-14, as shown in the Table given below:

Table 4.4-3: Fuel Cost approved in true up for FY 2013-14 for computation of IoWC

Station	Actual					Approved in true up for FY 2013-14				
	Cost of Coal (Rs. Crore)	Cost of Oil (Rs. Crore)	Total (Rs. Crore)	Net Generation (MU)	Fuel cost per unit (Rs./kWh)	Cost of Coal (Rs. Crore)	Cost of Oil (Rs. Crore)	Total (Rs. Crore)	Net Generation (MU)	Fuel cost per unit (Rs./kWh)
KTPS	264.42	40.36	304.78	1898.61	1.61	333.26	32.44	365.70	2685.31	1.36
HTPS	477.67	27.23	504.90	5484.95	0.92	476.13	36.86	512.99	5515.05	0.93
DSPM	215.56	3.26	218.82	2433.40	0.90	304.83	22.27	327.10	3387.93	0.97
Korba West TPP (Extn.)	135.82	25.05	160.87	1552.32	1.04	124.43	10.11	134.54	1547.87	0.87
Total	1093.48	95.90	1189.37	11369.28	1.05	1238.65	101.69	1340.34	13136.16	1.02

4.5 CAPITAL COST OF KORBA WEST TPP (EXTN.)

4.5.1 Capital cost of Korba West TPP (Extn.) as on COD

Commission's Analysis

Korba West TPP (Extn.) has achieved COD on September 5, 2013. As the Capital Cost as on COD of the station has not yet been approved by the Commission and the same is being approved in a separate proceeding on a separate petition filed by CSPGCL, the Commission has provisionally considered the actual capital cost of Rs. 2935.96 Crore as on COD as submitted by CSPGCL.

4.6 GFA ADDITION IN FY 2013-14

4.6.1 Additional capitalisation for FY 2013-14

CSPGCL's submission

CSPGCL submitted that the closing GFA for FY 2012-13 as approved by the Commission in the true up has been considered as the opening GFA for FY2013-14.

CSPGCL submitted that the Commission in the true up for FY 2011-12 and FY 2012-13 had considered some capital expenses booked in the accounts, as R&M expenses. CSPGCL submitted that the Commission had directed that such revenue expenditure should not be booked as capital expenditure. CSPGCL submitted that the Commission vide its letter dated October 27, 2014 provided clarification regarding the segregation of expenses into revenue nature and capital nature. CSPGCL submitted that it had

segregated the capital expenses booked in the accounts on best effort basis. CSPGCL submitted that the variation in the additional capitalisation for FY 2013-14 as per the audited accounts and as submitted in the Petition for true up is on this account.

Commission's Analysis

The Commission has scrutinised the station-wise additional capitalisation submitted by CSPGCL.

The Commission notes that CSPGCL has submitted details of additional capitalisation w.r.t. capital investment plan/business plan orders, which has been analysed and found to be in order.

After prudence check of the station-wise details of the additional capitalisation submitted by CSPGCL, the Commission considers it prudent to approve the additional capitalisation as submitted by CSPGCL in accordance with CSERC MYT Regulations, 2012. For Korba West TPP (Extn.), the Commission has provisionally considered the additional capitalisation in FY 2013-14 after COD, as submitted by CSPGCL.

For HBPS, the Commission has considered the additional capitalisation as zero, as submitted by CSPGCL.

The Commission further notes that CSPGCL has segregated the additional capitalisation into revenue nature and capital nature in accordance with the approach adopted in the previous tariff order, and has accordingly accepted the same as submitted by CSPGCL for true up purposes.

The additional capitalisation approved by the Commission in true up for FY 2013-14 is as shown in the Table given below:

Table 4.6-1: Additional Capitalisation approved in true up for FY 2013-14
(Rs. Crore)

Station	MYT Order	Actual	Approved in true up for FY 2013-14
KTPS	10.17	13.11	13.11
HTPS	15.93	26.73	26.73
DSPM	2.98	58.67	58.67
HBPS	0.00	0.00	0.00
Korba West TPP (Extn.)	0.00	137.57	137.57
Total	29.08	236.08	236.08

4.7 MEANS OF FINANCE

4.7.1 Means of finance for additional capitalisation

CSPGCL's submission

CSPGCL submitted that the means of finance for additional capitalisation has been considered in the normative debt- equity ratio of 70:30 in accordance with the provisions of the CSERC MYT Regulations, 2012.

Commission's Analysis

The means of finance of additional capitalisation for FY 2013-14 for the existing stations has been considered in the normative debt-equity ratio of 70:30 in accordance with Regulation 17 of the CSERC MYT Regulations, 2012, as shown in the Table below:

Table 4.7-1: Means of Finance for existing stations approved in true up for FY 2013-14
(Rs. Crore)

Station	Actual			Approved in final true up for FY 2013-14		
	Debt	Equity	Total	Debt	Equity	Total
KTPS	9.18	3.93	13.11	9.18	3.93	13.11
HTPS	18.71	8.02	26.73	18.71	8.02	26.73
DSPM	41.07	17.60	58.67	41.07	17.60	58.67
HBPS	0.00	0.00	0.00	0.00	0.00	0.00
Total	68.96	29.55	98.51	68.96	29.55	98.51

As regards, Korba West TPP (Extn.), the debt-equity for FY 2013-14 has been provisionally considered as submitted by CSPGCL. The means of finance approved in the true-up for FY 2013-14 is shown in the Table below:

Table 4.7-2: Means of Finance for Korba West TPP (Extn.) approved in true up for FY 2013-14

(Rs. Crore)

Station	CSPGCL Petition	Approved in true up for FY 2013-14
Opening GFA	2,935.96	2,935.96
Additional Capitalisation	137.57	137.57
Closing GFA	3,073.53	3,073.53
Average GFA	3,004.75	3,004.75
Opening Borrowed Gross Loan	2,649.26	2,649.26
Borrowed Gross Loan in Opening GFA	2,470.01	2,470.01

Station	CSPGCL Petition	Approved in true up for FY 2013-14
Closing Borrowed Gross Loan	2,839.59	2,614.61
Borrowed Gross Loan in Closing GFA	2,546.28	2,546.29
Average Borrowed Gross Loan	2,744.42	2,631.10
% of loan in average GFA	83.46%	83.46%
% of Equity in average GFA	16.54%	16.54%
Average Gross Borrowed Loan in GFA	2,508.15	2,508.15
Average Equity in GFA	496.60	496.60

4.8 ANNUAL FIXED COST

4.8.1 Annual Fixed Cost (AFC)

Regulation 35 of the CSERC MYT Regulations, 2012 specifies as under:

“35. Annual Fixed Charges

35.1 The annual fixed cost (AFC) of a generating station shall consist of the following components –

- (a) Return on equity;*
- (b) Interest and finance charges;*
- (c) Depreciation;*
- (d) Interest on working capital;*
- (e) Operation and maintenance expenses;*

NOTE:

- 1. Non-Tariff Income as specified in the Regulation 38, shall be subtracted from the sum of above (a to e) to arrive at AFC.*
- 2. The SLDC charges shall be recovered in accordance with applicable CSERC (Fees and charges of SLDC) Regulations specified from time to time.*
- 3. Pension & Gratuity Fund Contribution shall be recoverable in equal monthly instalments as may be determined by the Commission in the Tariff Order.*
- 4. The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.*

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for Thermal and Hydro Generating Stations shall be allowed in accordance with the provisions specified in Chapter 3 of these Regulations.

4.8.2 Return on Equity (RoE)

CSPGCL's submission

CSPGCL submitted that the Return on Equity has been computed by considering the base rate of 15.50%. CSPGCL submitted that no income tax has been paid for FY 2013-14 and hence, the grossing up with the applicable tax rate has not been considered. CSPGCL requested the Commission to allow the RoE for FY 2013-14 as submitted in the petition. CSPGCL requested the Commission to allow it to claim the income tax liability for FY 2013-14 if the same is raised by the authorities after final assessment.

Commission's Analysis

Regulation 22 of the CSERC MYT Regulations, 2012 specifies as under:

“22. RETURN ON EQUITY

22.1 Generation and Transmission: Return on Equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed on pre-tax basis at the base rate of maximum 15.5 % to be grossed up as per Regulation 22.3 of these Regulations.

...

22.3 The rate of return on equity for each year of the control period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year: Provided that return on equity with respect to the actual tax rate applicable to the generating company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control Period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil.

...”

The Commission has approved the RoE for FY 2013-14 in the MYT order based on the provisional true up for FY 2011-12. Thereafter, the Commission has carried out the final true up for FY 2011-12 and FY 2012-13 vide the Order dated June 12, 2014.

For Korba West TPP (Extn.), the Commission has considered the actual equity as on COD as submitted by CSPGCL. Further, the Commission has considered the equity portion of the additional capitalisation in FY 2013-14 as submitted by CSPGCL, as shown in Table 4.7-2 above.

For existing stations, the Commission has considered the closing equity approved in true up for FY 2012-13 as the opening equity for FY 2013-14. The Commission has considered the equity portion of the additional capitalisation as equity addition in FY 2013-14. The Commission has computed the return on equity for FY 2013-14 by considering the average of opening equity and closing equity for FY 2013-14.

As the income tax paid for FY 2013-14 is zero, the Commission has not considered the grossing up of base rate of RoE with the applicable tax rate. The Commission has considered the base rate of RoE of 15.50% as specified in the CSERC MYT Regulations, 2012.

As regards, the prayer of CSPGCL to allow the income tax liability for FY 2013-14 on actual basis after final assessment by the tax authorities, the Commission shall take an appropriate view regarding the same based on submissions of CSPGCL in this regard at the appropriate time.

The RoE approved by the Commission in the MYT Order, as submitted by CSPGCL and approved in true up for FY 2013-14 are as shown in the Table below:

Table 4.8-1: RoE approved in true up for FY 2013-14

(Rs. Crore)

Station	MYT Order	CSPGCL Petition	Approved in true up for FY 2013-14
KTPS	31.65	31.44	31.44
HTPS	59.12	53.37	53.37
DSPM	103.44	105.14	105.14
HBPS	5.83	5.83	5.83
Korba West TPP (Extn.)	0.00	43.86	43.86
Total	200.04	239.64	239.64

4.8.3 Interest and finance charges

CSPGCL's submission

CSPGCL submitted that the interest expenses for FY 2013-14 have been computed in accordance with CSERC MYT Regulations, 2012. The depreciation for the year has been considered as the normative loan repayment for the year. The interest expenses have been considered considering the weighted average interest rate of actual loan portfolio as on April 1 of the year. CSPGCL requested the Commission to allow the interest and finance charges for FY 2013-14 as submitted in the petition.

Commission's Analysis

The Commission has approved the interest and finance charges for FY 2013-14 in the MYT Order based on the provisional true up for FY 2011-12. Thereafter, the Commission has carried out the final true up for FY 2011-12 and FY 2012-13 vide the order dated June 12, 2014.

For Korba West TPP (Extn.), the Commission has considered the opening loan balance as on COD as submitted by CSPGCL. Further, the Commission has considered the debt portion of the additional capitalisation in FY 2013-14 as submitted by CSPGCL, as shown in Table 4.7-2 above.

For existing stations, the Commission has considered the closing loan balances approved in true up for FY 2012-13 as the opening loan balances for FY 2013-14. The Commission has considered the debt portion of the additional capitalisation as loan addition in FY 2013-14. The allowable depreciation for the year has been considered as the normative repayment for the year. The Commission has computed the interest for FY 2013-14 by considering the actual weighted average interest rate as on April 1, 2013 as submitted by CSPGCL.

The interest and finance charges approved by the Commission in the MYT Order, as submitted by CSPGCL and approved by the Commission in true up for FY 2013-14, are as shown in the Table below:

Table 4.8-2: Interest and finance charges approved in true up for FY 2013-14
(Rs. Crore)

Station	MYT Order	CSPGCL Petition	Approved in true up for FY 2013-14
KTPS	19.12	18.00	17.99
HTPS	27.88	17.87	17.86
DSPM	118.87	129.25	129.24
HBPS	1.65	2.04	2.04
Korba West TPP (Extn.)	0.00	182.28	182.28
Total	167.52	349.44	349.41

4.8.4 Depreciation

CSPGCL's submission

CSPGCL submitted that the depreciation for FY 2013-14 has been computed in accordance with Regulation 24 of the CSERC MYT Regulations, 2012. CSPGCL submitted that the depreciation approved by the Commission in the MYT Order, for

FY 2013-14 for HTPS is not in accordance with the provisions of the CSERC MYT Regulations, 2012. CSPGCL submitted that the useful life of a thermal generating station has been specified as 25 years in the CSERC MYT Regulations, 2012. CSPGCL submitted that the Commission in the MYT Order had considered the actual life of the assets rather than the useful life in computing the depreciation. CSPGCL submitted that an appeal had been filed before the Hon'ble ATE in this matter.

Commission's Analysis

The Commission had approved the depreciation for FY 2013-14 in the MYT Order based on the provisional true up for FY 2011-12. Thereafter, the Commission carried out the final true up for FY 2011-12 and FY 2012-13 vide order dated June 12, 2014.

For Korba West TPP (Extn.), the Commission has considered the GFA as on COD as submitted by CSPGCL. Further, the Commission has considered the additional capitalisation in FY 2013-14 as submitted by CSPGCL. Since, the Commission has considered the capital cost on provisional basis, hence, the depreciation expenses have also been approved on provisional basis as submitted by CSPGCL. Based on the finalisation of the capital cost, the Commission shall revise the depreciation expenses in accordance with the provisions of the CSERC MYT Tariff Regulations, 2012.

For existing stations, the Commission has considered the closing GFA and closing accumulated depreciation approved in true up for FY 2012-13 as the opening balances for FY 2013-14. The Commission has computed the depreciation in accordance with the CSERC MYT Regulations, 2012.

The depreciation approved in the MYT Order, as submitted by CSPGCL and approved in the true up for FY 2013-14 are as shown in the Table given below:

**Table 4.8-3: Depreciation approved in true up for FY 2013-14
(Rs. Crore)**

Station	MYT Order	CSPGCL Petition	Approved in true up for FY 2013-14
KTPS	28.73	29.62	29.62
HTPS	41.81	24.06	38.37
DSPM	117.59	125.62	125.62
HBPS	2.51	2.64	2.64
Korba West TPP (Extn.)	0.00	95.29	95.29
Total	190.64	277.23	291.54

4.8.5 Interest on Working Capital (IoWC)

CSPGCL's submission

CSPGCL submitted that the IoWC for FY 2013-14 has been computed in accordance with CSERC MYT Regulations, 2012 considering the interest rate as base rate of SBI as on April 1, 2013 plus 350 basis points.

Commission's Analysis

The Commission has computed IoWC in accordance with the CSERC MYT Regulations, 2012. The Commission has not accepted CSPGCL's contention that DSPM is a non-pit head station, and hence, its cost of coal should be allowed for 1.5 months. The Commission has considered DSPM as a pithead station, and 1 month cost of coal has been considered. The rate of interest has been considered as the SBI Base Rate as on April 1, 2013 plus 350 basis points.

The IoWC approved in the MYT Order, as submitted by CSPGCL, and approved in the true up for FY 2013-14 is as shown in the Table given below:

Table 4.8-4: IoWC approved in true up for FY 2013-14

(Rs. Crore)

Station	MYT Order	CSPGCL Petition	Approved in true up for FY 2013-14
KTPS	17.67	18.58	18.56
HTPS	25.74	25.21	25.38
DSPM	18.60	17.92	16.17
HBPS	0.66	0.67	0.64
Korba West TPP (Extn.)	0.00	16.08	15.56
Total	62.67	78.46	76.31

4.8.6 Operation and Maintenance (O&M) expenses

CSPGCL's submission

CSPGCL submitted that the Commission in the MYT order approved the O&M expenses for the control period from FY 2013-14 to FY 2015-16 based on the trued up O&M expenses for FY 2009-10 and FY 2010-11 and provisionally trued up O&M expenses for FY 2011-12. CSPGCL submitted that the Commission had carried out the final true up for FY 2011-12 vide order dated June 12, 2014. CSPGCL requested the Commission to revise the O&M expenses for FY 2013-14 based on the trued up O&M expenses for FY 2011-12. CSPGCL submitted that the escalation rate computed in accordance with the CSERC MYT Regulations, 2012 is 8.22%.

CSPGCL submitted the station-wise actual O&M expenses for FY 2013-14. CSPGCL submitted that as per the methodology adopted in earlier orders, the cost incurred on coal transport has been reduced from the O&M expenses and added to the fuel cost. Similarly, as per settled methodology adopted by the Commission in its previous orders, for regulatory purposes, the productivity incentive has not been included in the employee expenses and donations have not been included in A&G expenses. As per the methodology adopted in the MYT Order, O&M expenses on support functions such as Head Office, CAU, etc., are allocated among the power stations in proportion to their installed capacities. Contribution to Pension and Gratuity Trust has been considered separately.

Commission's Analysis

Regulation 40 of the CSERC MYT Regulations, 2012 specifies as under:

“40. OPERATION AND MAINTENANCE EXPENSES

40.1 Thermal Generating Station:

(a) Operation and Maintenance (O&M) expenses for generating Company shall include:

I. Employee costs;

II. Administrative and General Expenses

III. Repairs and Maintenance

(b) The Operation and Maintenance expenses, excluding water charges, pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding water charges, pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.

(c) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010-11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived, shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.

At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period. Provided that water charges shall be pass through in tariff on reimbursement basis:

Provided further that impact of pay revision (including arrears) shall be allowed on actual during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.”

The Commission has accordingly recomputed the station-wise normative O&M expenses for FY 2013 -14 considering the trued up O&M expenses for FY 2009-10 to FY 2011-12 in accordance with CSERC MYT Regulations, 2012.

The Commission has verified the CPI and WPI data and has accordingly considered the escalation rate as 8.25% as against 8.22% submitted by CSPGCL for FY 2013-14.

For Korba West TPP (Extn.), the Commission has considered the actual O&M expenses for FY 2013-14 as submitted by CSPGCL. The Commission shall compute the normative O&M expenses for Korba West TPP (Extn.) for FY 2013-14 and accordingly carry out the sharing of gains and losses in the final true up.

The O&M expenses approved by the Commission in the true up for FY 2013-14 are as shown in the Table given below:

Table 4.8-5: O&M expenses approved in true up for FY 2013-14

(Rs. Crore)

Station	Normative O&M expenses			Actual O&M expenses	
	MYT Order	CSPGCL Petition	Approved	CSPGCL Petition	Approved
KTPS	195.02	204.93	204.99	186.61	186.61
HTPS	254.36	252.21	252.28	252.88	252.88
DSPM	116.87	115.81	115.84	127.25	127.25
HBPS	12.41	12.62	12.62	9.74	9.74
Korba West TPP (Extn.)	0.00	0.00	0.00	19.54	19.54
Total	578.66	572.95	573.11	596.02	596.02

4.8.7 Non-Tariff Income

CSPGCL's submission

CSPGCL submitted that the Non-Tariff Income (NTI) as per the books of accounts comprises of bookings against Interest income on Fixed Deposit Receipts (FDR) with bank, Interest on staff loans & advances, Interest on advance to contractors/suppliers,

Rental from staff / contractors, Other rental incomes, lease rentals received, recoveries for transport facilities, miscellaneous recovery from staff, receipts against RTI applications, sale of tender forms, profit on sale of scrap, sale of fly ash, cost of scrapping - stores/ raw material, loss on obsolescence of stores, loss from asset sale, revenue ,grants and subsidies, etc.

CSPGCL submitted that the delayed payment surcharge is not taken into account. Except for one FDR with SBI of Rs 5,01,046/- all the other FDRs are specific purpose instruments. The FDRs are in fact made and pledged with banks for availing Letter of Credit (LC), bank guarantees, etc., to meet the contractual requirements for FSA/rail transport, etc. The cost of such FDRs have not been charged to the capital cost / fuel cost / O&M cost and against financing of these instruments, no ROE / Interest and finance charges, have been claimed in the regulatory filings. As such, except for the interest accrued on the aforesaid one old FDR with SBI, the interest accrued on other FDRs do not qualify for consideration as NTI for the regulatory purpose.

CSPGCL submitted that except for the above stated exclusions, the other amounts under NTI have been considered. The plant specific income has been booked to respective plant and income appearing against HO has been allocated to the three thermal plants on installed capacity basis.

Commission's Analysis

The Commission in the MYT Order had approved the NTI for FY 2013-14. The Commission, in the true up for FY 2013-14, has considered the actual station wise Non-Tariff Income as per the books of accounts in true up for FY 2013-14. The Commission does not find merit in CSPGCL's contention that the interest accrued on other FDRs do not qualify for consideration as NTI for regulatory purposes, and that the interest on these FDRs are the cost of the FDRs. The Commission is of the view that interest income earned by CSPGCL on all FDRs, irrespective of whether they are utilised to obtain LCs or BGs, has to be included in the NTI. This is also standard accounting practice.

The Non-Tariff Income approved in the MYT Order, as submitted by CSPGCL and approved in the true up for FY 2013-14 is as shown in the Table given below:

Table 4.8-6: Non-Tariff Income approved in true up for FY 2013-14
(Rs. Crore)

Station	MYT Order	CSPGCL Petition	Approved in true up for FY 2013-14
KTPS	6.03	3.16	4.68
HTPS	9.92	9.73	8.94

Station	MYT Order	CSPGCL Petition	Approved in true up for FY 2013-14
DSPM	6.04	2.06	5.32
HBPS	1.42	0.00	0.00
Korba West TPP (Extn.)	0.00	3.10	3.10
Total	23.41	18.05	22.04

4.8.8 Pension Fund Contribution

CSPGCL's submission

CSPGCL submitted that the Commission, in the MYT Order, had approved the Pension Fund Contribution of Rs. 144.11 Crore for FY 2013-14. Out of the same, CSPGCL's share of Rs. 39.28 Crore has been paid.

Commission's Analysis

The Commission notes that in the MYT Order, pension fund contribution of Rs. 39.28 Crore was approved and CSPGCL has made contribution of the same amount. Accordingly, the Commission has approved the actual pension fund contribution of Rs. 39.28 Crore for CSPGCL for FY 2013-14 and allocated the amount to the Generating Stations in the same proportion as allocated by CSPGCL.

4.8.9 Prior Period items

CSPGCL's submission

CSPGCL submitted that the prior period (credits)/charges have been considered as per audited annual accounts for FY 2013-14. CSPGCL submitted that it had not considered interest charges as part of prior period (credits)/charges, as for regulatory purposes, the same is computed and allowed on normative basis and is unrelated to accounts. Further, fuel related losses and expenses relating to previous year has not been considered, as for the regulatory purpose, fuel cost is computed differently and during the respective true ups of the prior periods the same was approved accordingly. Similarly, net excess provision for depreciation during previous years as part of prior period credits do not qualify for regulatory purpose because in the regulatory filing the same is allowed on normative basis. Further, in the previous years, revenue from sale of power was considered based on the actual bills and the same methodology shall continue for this year too. Therefore, adjustment in accounts under the head "Short provision for revenue from operations related to previous years" for appropriation of FCA etc., has not been considered as the same may result in double accounting.

Except for above stated exclusions, rest of prior period (credits)/ charges have been considered. CSPGCL also submitted that no contingent liability/claim has been included in its Petition and as per standard accounting practice; such liability/claims shall be submitted on their settlement, as the case may be.

Commission's Analysis

The Commission has accepted the submissions of CSPGCL, and has approved the prior period expenses as submitted by CSPGCL, as shown in the Table below:

Table 4.8-7: Prior Period Expenses approved in final true up for FY 2013-14
(Rs. Crore)

Station	CSPGCL Petition	Approved in final true up for FY 2013-14
KTPS	0.27	0.27
HTPS	0.51	0.51
DSPM	0.30	0.30
Total	1.08	1.08

4.8.10 Other Charges

CSPGCL's submission

CSPGCL submitted that the actual water charges for FY 2013-14 were Rs. 83.68 Crore, while the ED and cess paid were Rs. 39.58 Crore, SLDC charges were Rs. 5.29 Crore, and petition filing fees and publication expenses were Rs. 0.24 Crore for FY 2013-14.

Commission's Analysis

The Commission has approved the other charges as submitted by CSPGCL in the true up for FY 2013-14.

4.9 ARR FOR FY 2013-14

The summary of ARR approved for KTPS, HTPS, DSPM and HBPS for FY 2013-14 is as shown in the Table given below:

Table 4.9-1: ARR approved for HTPS, KTPS, DSPM and HBPS for FY 2013-14 (Rs. Crore)

Particulars	HTPS			KTPS			DSPM			HBPS		
	MYT Order	CSPGCL Petition	Approved	MYT Order	CSPGCL Petition	Approved	MYT Order	CSPGCL Petition	Approved	MYT Order	CSPGCL Petition	Approved
O&M expenses	254.36	252.88	252.88	195.02	186.61	186.61	116.87	127.25	127.25	12.66	9.74	9.74
Depreciation	41.81	24.06	38.37	28.73	29.62	29.62	117.59	125.62	125.62	2.51	2.64	2.64
Interest & Finance Charges	27.88	17.87	17.86	19.12	18.00	17.99	118.87	129.25	129.24	1.65	2.04	2.04
Interest on Working Capital	25.74	25.21	25.38	17.67	18.58	18.56	18.60	17.92	16.17	0.66	0.65	0.64
Return on Equity	59.12	53.37	53.37	31.65	31.44	31.44	103.44	105.14	105.14	5.83	5.83	5.83
Contribution to Pension and Gratuity Fund	15.35	15.35	15.35	8.04	8.04	8.04	9.13	9.13	9.13	2.19	2.19	2.19
Less: Net Prior Period Credits/(Charges)	0.00	0.51	0.51	0.00	0.27	0.27	0.00	0.31	0.30	0.00	0.00	0.00
Less: Non Tariff Income	9.92	9.73	8.94	6.03	3.16	4.68	6.04	2.06	5.32	1.42	0.00	0.00
Total Annual Fixed Cost	414.35	379.52	394.78	294.20	289.40	287.85	478.46	512.55	507.53	24.08	23.09	23.08
Cost of Coal	484.92	477.67	477.67	280.10	264.42	264.42	303.88	215.56	215.56	0.00	0.00	0.00
Cost of Oil	30.19	27.23	27.23	29.83	40.36	40.36	18.55	3.26	3.26	0.00	0.00	0.00
Total Cost	929.46	884.42	899.68	604.13	594.18	592.63	800.89	731.37	726.35	24.08	23.09	23.08

The summary of ARR approved for Korba West TPP (Extn.) for FY 2013-14 is as shown in the Table given below:

Table 4.9-2: ARR approved for Korba West TPP (Extn.) for FY 2013-14
(Rs. Crore)

Particulars	FY 2013-14	
	CSPGCL Petition	Approved
Depreciation	95.29	95.29
Interest on Loan and Finance charges	182.28	182.28
Return on Equity	43.86	43.86
Interest on Working Capital	16.08	15.56
O & M Expenses	19.54	19.54
Less - Non Tariff Income	3.10	3.10
Total Annual Fixed Cost (AFC)	353.95	353.44
Allowable Annual Fixed Cost (AFC)		316.52
Secondary fuel oil cost	25.05	10.11
Fuel cost	135.82	124.43
Total Energy Charges	160.87	134.54
Contribution to Pension Fund	4.57	4.57
Aggregate Revenue Requirement	519.40	455.63

The allowable AFC for Korba West TPP (Extn.) FY 2013-14 after provisional true-up has been determined by considering the actual PLF after impact of backing down, and sharing of 50% of reduction in AFC due to lower than normative PLF. The final sharing of gains and losses for Korba West TPP (Extn.) shall be done after final true-up is done, after the capital cost is approved in a separate petition before the Commission.

The fuel charges at NAPAF and secondary fuel oil cost have been considered based on normative performance parameters and actual generation by Korba West TPP (Extn.) during FY 2013-14.

4.10 REVENUE FROM SALE OF POWER

CSPGCL's submission

CSPGCL has claimed the revenue from sale of power as Rs. 2004.15 Crore for FY 2013-14.

Commission's Analysis

The Commission has considered the revenue from sale of power for FY 2013-14 as submitted by CSPGCL.

4.11 SUMMARY OF FINAL TRUE UP FOR FY 2013-14

4.11.1 Controllable and Uncontrollable factors

Regulation 11 of the CSERC MYT Regulations, 2012 specifies as under:

"11. CONTROLLABLE AND UN-CONTROLLABLE FACTORS

11.1 For the purpose of these Regulations, the term "uncontrollable factors" shall comprise of the following factors, but not limited to, which were beyond the control of the applicant, and could not be mitigated by the applicant:

(a) Force Majeure events;

(b) Change in law

... "

11.2 For the purpose of these Regulations, the term "Controllable factors" shall comprise of the following:

...

(b) Generation Performance parameters like SHR, Auxiliary consumption, etc;

...

(e) Operation & Maintenance expenses

4.11.2 Mechanism for pass through of gains or losses

Regulation 12 of the CSERC MYT Regulations, 2012 specifies as under:

"12. MECHANISM FOR PASS THROUGH OF GAINS OR LOSSES ON ACCOUNT OF UNCONTROLLABLE FACTORS

The aggregate net gains / losses to the generating company or STU/transmission licensee or distribution licensee on account of uncontrollable items (as per the tariff order) over such period shall be passed on to beneficiaries/consumers through the next ARR or as may be specified in the Order of the Commission passed under these Regulations.

Regulation 13 of the CSERC MYT Regulations, 2012 specifies as under:

“13. MECHANISM FOR SHARING OF GAINS OR LOSSES ON ACCOUNT OF CONTROLLABLE FACTORS

The mechanism for sharing of aggregate net gain / loss on account of better/ under achievement in reference to the target set in tariff order for efficiency linked controllable items shall be passed on to the beneficiary / consumer(s) and the other one-half (or 50%) amount of gain/ loss shall be retained by the generating company or the licensee, as the case may be, over such period as may be stipulated in the Order of the Commission”.

4.11.3 Sharing of gains and losses for FY 2013-14

CSPGCL’s submission

CSPGCL submitted that the CSERC MYT Regulations has specified two changes from the earlier Tariff Regulations, viz., the sharing of gains and loss has been specified in the ratio of 50: 50, and the pension fund contribution, being old unfunded statutory liability without linkage to current performance, has been segregated from AFC and allowed as a separate line item. CSPGCL submitted that except for incorporation of the above changes expressly specified in the Regulations, for sharing of gains / losses, the well settled methodology adopted by the Commission in previous orders has been adopted for calculating the sharing of gains and losses, with the exception that in cases where CSPGCL is praying for exercise of Regulation 77 and/or 79 of the CSERC MYT Regulations, sharing has not been considered.

Commission’s Analysis

The Commission has computed the sharing of gains and losses on account of controllable factors, in accordance with the CSERC MYT Regulations, 2012, and the established methodology for sharing of gains and losses, as elaborated in the MYT Order and previous Tariff Order. The Commission has excluded the contribution to pension fund from the calculations, and has shared the gains/losses in the ratio of 50:50 in accordance

with the CSERC MYT Regulations. As stated earlier, the Commission has not relaxed the performance parameters, a sought by CSPGCL.

The sharing of gains and losses after final true up for FY 2013-14 for KTPS, HTPS, and DSPM is as shown in the Table below:

Table 4.11-1: Summary of final true up for KTPS, HTPS and DSPM for FY 2013-14

Particulars	Units	Legend	FY 2013-14		
			KTPS	HTPS	DSPM
Fixed Charges @ NPLF					
Installed capacity	MW		440	840	500
NPLF as per MYT Regulations	%		78.50%	83.00%	85.00%
Actual PLF achieved	%		56.83%	82.69%	60.23%
Gross generation at NPLF	MU		3025.70	6107.47	3723.00
Gross generation at actual PLF	MU		2190.62	6084.36	2638.04
Normative aux. consumption	%		11.25%	9.70%	9.00%
Actual aux cons	%		13.33%	9.85%	7.76%
Normative aux. consumption	MU		340.39	592.42	335.07
Actual aux cons	MU		292.00	599.41	204.64
Normative Net Generation	MU	a	2685.31	5515.05	3387.93
Actual net generation	MU	b	1898.61	5484.95	2433.40
Generation Loss due to backing down	MU	c	4.13	50.62	61.07
Generation Loss due to system problem	MU	d			
Generation Loss due to forced majeure outages	MU	e			
Total Net Generation available (Including Loss due to backing down)	MU	f=b+c+d+e	1902.75	5535.57	2494.47
Total Net Generation to be considered for sharing of gains and losses		g=If(APLF<NPLF, Min(f,a),b+c)	1,902.75	5,515.05	2,494.47
Fixed Cost (norm-wise)					
Depreciation	Rs Cr	A	29.62	38.37	125.62
Interest on Loan and Finance charges	Rs Cr	B	17.99	17.05	129.24
Return on Equity	Rs Cr	C	31.44	53.37	105.14
Interest on Working Capital	Rs Cr	D	18.56	25.38	16.17
Less - Non Tariff Income	Rs Cr	E	4.68	8.94	5.32

Particulars	Units	Legend	FY 2013-14		
			KTPS	HTPS	DSPM
Fixed cost expenditure excluding O&M and Sec fuel	Rs Cr	$G = \text{Sum}(\text{AtoD}) - E$	92.93	126.04	370.84
Normative per unit Fixed Cost (Rs/kWh) excluding O&M and Secondary fuel cost	Rs/kWh	$H = G/a * 10$	0.35	0.23	1.09
Units available for Sale (for AFC recovery)(Actual Sent out Unit)	MU	$I = g$	1902.75	5515.05	2494.47
Fixed cost recovery from generation considered from sharing of gains and losses	Rs Cr	$J = H * I / 10$	65.85	126.04	273.04
Fixed cost gain from normative cost	Rs Cr	$K = J - G$	(27.08)	0.00	(97.80)
Total gain/(loss)	Rs Cr	$L = \text{Sum}(K)$	(124.88)		
O & M expenses					
Normative O&M Cost allowed	Rs Cr	M	204.99	252.28	115.84
Normative O&M Cost derived from NPLF	Rs/kWh	N	0.76	0.46	0.34
Actual O&M cost recovery due to net generation considered from sharing of gains and losses	Rs Cr	$O = N * g / 10$	145.25	252.28	85.29
Actual O & M cost expenditure	Rs Cr	P	186.61	252.88	127.25
Difference of recovery and expenditure	Rs Cr	$Q = O - P$	(41.36)	(0.60)	(41.96)
Total Difference		$R = \text{Sum}(Q)$	(83.92)		
Secondary Fuel Cost					
Normative SFC	Rs Cr	S	32.44	36.86	22.27
Normative SFC derived from NPLF	Rs/kwh	T	0.12	0.07	0.07
Secondary fuel cost recovery from actual generation	Rs Cr	$U = T * b / 10$	22.94	36.66	16.00
Actual SFC incurred	Rs Cr	V	40.36	27.23	3.26
Savings due to performance improvement	Rs Cr	$W = U - V$	(17.42)	9.43	12.74
Total Impact Savings/Excess Expenditure due to SFC	Rs Cr	$X = \text{Sum}(W)$	4.75		
Coal Cost (primary fuel)					
Normative fuel Cost	Rs Cr	Y	333.26	476.13	304.83
Normative fuel Cost derived	Rs/kwh	Z	1.24	0.86	0.90

Particulars	Units	Legend	FY 2013-14		
			KTPS	HTPS	DSPM
from NPLF					
Normative fuel cost on actual sent out	Rs Cr	$AA=Z*b/10$	235.63	473.53	218.94
Actual fuel cost	Rs Cr	AB	264.42	477.67	215.56
Coal Cost Surplus/(deficit)	Rs Cr	AC=AA-AB	(28.79)	(4.14)	3.38
Total Impact Savings/Excess Expenditure due to coal cost	Rs Cr	AD=Sum(AC)	(29.55)		
Gains/(Losses) for Hasdeo Bango	Rs Cr	AE	2.88		
Total Impact Savings/Excess Expenditure	Rs Cr	AF=Sum(L,R,X,AD,AE)	(230.72)		
Gain/(Loss) to Utility	Rs Cr	AG=AF/2	(115.36)		

From the above table it is apparent that due to non achievement of norms, CSPGCL thermal power stations had incurred loss of Rs. 230.72 Crore. As per the provisions of the Regulations, 50% of this loss has to be borne by CSPGCL and remaining 50% will be borne by consumers of the State.

4.11.4 Summary of final true up for FY 2013-14

The summary of final true up for FY 2013-14 for CSPGCL is as shown in the Table given below:

Table 4.11-2: Summary of final true up for FY 2013-14 for CSPGCL

(Rs. Crore)

Particulars	CSPGCL Petition	Approved
Total ARR of Power Plants	2,752.46	2,697.37
Sharing of Gain/(Losses)	0.00	(115.36)
Net ARR	2,752.46	2,582.01
Income from Sale of Power	2,442.48	2,442.48
Standalone Revenue Surplus/(Deficit)	(309.98)	(139.53)
Petition Filing Fees & Publication Expenses	(0.24)	(0.24)
Diff. of statutory charges paid & recovered from CSPDCL	(6.28)	(6.28)
Net Revenue Surplus/(Deficit)	(316.50)	(146.06)
Net Revenue Surplus/(Deficit) considering carrying cost (upto 31.03.2015) and considering recovery through FY 2015-16	(382.27)	(187.52)

4.12 ARR FOR KORBA WEST TPP (EXTN.) FOR FY 2015-16

4.12.1 Norms of Operation

The CSERC MYT Regulations, 2012 specifies the following as norms of operation for generating stations:

- Plant Availability Factor
- Auxiliary Energy Consumption
- Gross Station Heat Rate
- Secondary fuel oil consumption
- Transit and handling losses

CSPGCL's submission

CSPGCL submitted the norms of operation for Korba West TPP (Extn.) for FY 2015-16 in accordance with CSERC MYT Regulations, 2012 as shown in the Table below:

Table 4.12-1: Norms of operation for Korba West TPP (Extn.) for FY 2015-16 as submitted by CSPGCL

Particulars	Units	Norm as per CSERC MYT Regulations, 2012	CSPGCL Petition
NAPAF	%	85.00%	85.00%
Auxiliary Energy Consumption	%	6.00%	6.00%
Gross Station Heat Rate	kcal/kWh	2424	2424
Secondary fuel oil consumption	ml/kWh	1.00	1.00
Transit and handling loss	%	0.30%	0.30%

Commission's Analysis

The Commission has considered the norms of operation for Korba West TPP (Extn.) for FY 2015-16 in accordance with the CSERC MYT Regulations, 2012, as shown in the Table below:

Table 4.12-2: Norms of operation approved for Korba West TPP (Extn.) for FY 2015-16

Particulars	Units	Approved
NAPAF	%	85.00%
Auxiliary Energy Consumption	%	6.00%
Gross Station Heat Rate	kcal/kWh	2424
Secondary fuel oil consumption	ml/kWh	1.00
Transit and handling loss	%	0.30%

4.12.2 Energy Charge

CSPGCL's submission

CSPGCL submitted that domestic coal is the primary fuel for generation of power from Korba West TPP (Extn.). CSPGCL submitted that it had signed a FSA on January 10, 2013 (read with Amendment 1 dated 30.06.2014) with South Eastern Coalfields Limited (SECL) for supply of Annual Contracted Quantity (ACQ) of 2312000 tpa (TPA). The FSA shall remain in force till the end of 20 years from the effective date.

CSPGCL submitted that the FSA stipulates that in case SECL is not in a position to supply the scheduled quantity of coal from sources indicated in the FSA, it would have an option to supply the balance quantity of coal through import which shall not, unless otherwise agreed between the parties, exceed 15% of the ACQ in the year 2012-13, 2013-14 and 2014-15, 13% of the ACQ in the year 2015-16, and 5% of the ACQ for the year 2016-17 and onwards. SECL may at its own discretion, make such arrangement for supply of imported coal through CIL and/or other enterprises. CSPGCL submitted that in such situation it has to enter into an agreement with CIL and/or SECL as the case may be in addition to the FSA. CSPGCL submitted that it has not claimed any fuel cost on account of purchase of imported coal during FY 2015-16. CSPGCL requested the Commission to allow the fuel cost on actual basis.

CSPGCL submitted that the coal supply source (the mine) and the mode of coal transport (LDCC) is same as that of HTPS. CSPGCL submitted that the landed price of coal for HTPS for the whole control period (including FY 2015-16) had been approved by the Commission in the MYT Order and the same landed coal price approved for FY 2015-16 has been considered for Korba West TPP (Extn.). CSPGCL requested the Commission to allow FCA in the manner similar to that prevailing for HTPS.

CSPGCL submitted that the price of secondary fuel oil has been considered based on the average price for FY 2013-14. CSPGCL requested the Commission to provide an appropriate FAC mechanism for recovery of any change in rate of fuel cost for Korba West TPP (Extn.) in accordance with the directions of Hon'ble ATE in O.P. No. 1 of 2011.

Commission's Analysis

As per the provision of the CSERC MYT Regulation, 2012, Energy charges has to be determined as per the following formulae

“Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae for coal based stations:

$$ECR = [(GHR - SFC \times CVSF) \times LPPF / CVPF] + SFC \times LPSFi] \times 100 / (100 - AUX)$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Gross calorific value of primary fuel as fired, in kCal per kg, per litre or per standard cubic meter, as applicable.

CVSF = Calorific value of secondary fuel, in kCal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR = Gross station heat rate, in kCal per kWh.

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic meter, as applicable, during the month.

SFC = Specific fuel oil consumption, in ml per kWh.

LPSFi – Weighted Average Landed Price of Secondary Fuel in Rs./ml considered initially”

The Commission for the purpose of this Order has considered the fuel prices and calorific value of fuels for FY 2015-16 as submitted by CSPGCL, as shown in the Table below:

Table 4.12-3: Fuel Cost approved for Korba West TPP (Extn.) for FY 2013-14

Particulars	Unit	Korba West TPP (Extn.)
Gross Heat Rate (GHR)	kCal/kWh	2424.000
Specific fuel oil consumption (SFC)	ml/kWh	1.000
Calorific value of secondary fuel (CVSF)	kCal/ml	10.000
Landed Price of Primary Fuel (LPPF)	Rs./kg	1.034
Calorific value of primary fuel (CVPF)	kCal/kg	3439.000
Landed Price of secondary Fuel (LPSFi)	Rs./ml	0.049
Auxiliary Consumption	%	6.000
ECR		0.825

It is clarified that energy charges for this power plant had been determined based on existing fuel cost. As per directions of Hon’ble Tribunal, CSPGCL is entitled to recover any variation in the fuel prices w.r.t. above considered fuel prices, under the FCA mechanism specified in order dated 30.06.2012 passed in suo-moto petition number 26/2012 and its subsequent amendments thereof.

4.12.3 Additional Capitalisation in FY 2014-15 and FY 2015-16

CSPGCL's submission

CSPGCL has projected additional capitalisation of Rs. 299.23 Crore and Rs. 415.82 crore for FY 2014-15 and FY 2015-16, respectively.

Commission's Analysis

As stated earlier, the capital cost as on COD and the capital cost at the end of FY 2013-14 have been provisionally considered same as that submitted by CSPGCL, since, the final capital cost is yet to be approved by the Commission in a separate petition before the Commission. CSPGCL has projected significant additional capitalisation in FY 2014-15 and FY 2015-16 also. The Commission is of the view that as the original capital cost is itself not yet approved, the Commission cannot take any final view on the additional amount of capitalisation projected by CSPGCL for FY 2014-15 and FY 2015-16. Hence, the Commission has approved the additional capitalisation in FY 2014-15 to the extent of 2.50% of the opening GFA for FY 2014-15, which is the ceiling limit of initial spares specified in CSERC MYT Regulations, 2012. Accordingly, the Commission has considered the additional capitalisation of Rs. 161.37 Crore for FY 2014-15. The Commission has not considered any additional capitalisation for FY 2015-16. The Commission will take a final view on the capital cost and additional capitalisation in its Order on the separate Petition filed by CSPGCL in this regard.

4.12.4 Annual Fixed Charges (AFC)

Regulation 35 of the CSERC MYT Regulations, 2012 specifies as under:

“35. Annual Fixed Charges

35.1 The annual fixed cost (AFC) of a generating station shall consist of the following components –

- (a) Return on equity;*
- (b) Interest and finance charges;*
- (c) Depreciation;*
- (d) Interest on working capital;*
- (e) Operation and maintenance expenses;*

NOTE:

- 5. Non-Tariff Income as specified in the Regulation 38, shall be subtracted from the sum of above (a to e) to arrive at AFC.*

6. *The SLDC charges shall be recovered in accordance with applicable CSERC (Fees and charges of SLDC) Regulations specified from time to time.*
7. *Pension & Gratuity Fund Contribution shall be recoverable in equal monthly instalments as may be determined by the Commission in the Tariff Order.*
8. *The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.*

Provided that Depreciation, Interest and finance charges on Loan Capital, Interest on Working Capital and Return on Equity for Thermal and Hydro Generating Stations shall be allowed in accordance with the provisions specified in Chapter 3 of these Regulations.”

4.12.5 Return on Equity (RoE)

CSPGCL’s submission

CSPGCL submitted that the RoE for FY 2015-16 has been computed by grossing up the base rate of 15.50% with MAT Rate of 20.001% in accordance with the CSERC MYT Regulations, 2012. CSPGCL projected RoE of Rs. 87.52 Crore for FY 2015-16.

Commission’s Analysis

The Commission has computed RoE for FY 2015-16 by grossing up the base rate of 15.50% with MAT Rate of 20.001%. The Commission has approved the RoE for FY 2015-16 as Rs. 79.34 Crore.

4.12.6 Interest and finance charges

CSPGCL’s submission

CSPGCL submitted that the CSERC MYT Regulations, 2012 specifies the normative repayment as equivalent to depreciation. CSPGCL submitted that the depreciation for the year is less than the repayment of loan as per the loan terms and hence, it has considered Advance Against Depreciation (AAD) in addition to depreciation for repayment of loan in FY 2015-16. CSPGCL submitted that the actual interest rate for FY 2013-14 has been considered for computing the interest expenses for FY 2015-16. CSPGCL submitted the interest and finance charges for FY 2015-16 as Rs. 359.63 Crore.

Commission’s Analysis

The Commission has considered the closing loan for FY 2014-15 as the opening loan for FY 2015-16. The allowable depreciation for the year has been considered as repayment.

The Commission has not considered any AAD for FY 2015-16 as the CSERC MYT Regulations, 2012 does not provide for the same. The Commission has considered the interest rate of 13% in computing the interest expenses for FY 2015-16. The Commission has approved the interest and finance charges of Rs. 322.17 Crore for FY 2015-16.

4.12.7 Depreciation

CSPGCL's submission

CSPGCL submitted that the depreciation for FY 2015-16 has been computed considering the average depreciation rate of 5.28%. CSPGCL submitted that in addition to depreciation, it has considered AAD for FY 2015-16 as the depreciation for the year is lower than the repayment of loan as per the loan terms. CSPGCL requested the Commission to exercise Regulation 77 and Regulation 79 of the CSERC MYT Regulations, 2012 and allow AAD in addition to depreciation for FY 2015-16. CSPGCL has claimed the depreciation of Rs. 189.06 Crore and AAD of Rs. 5.25 Crore for FY 2015-16.

Commission's Analysis

The Commission has computed the depreciation for FY 2015-16 by considering the average GFA for the year and the depreciation rate of 5.28%. The Commission has approved the depreciation of Rs. 170.80 Crore for FY 2015-16. The Commission has not allowed AAD for FY 2015-16 as CSERC MYT Regulations, 2012 does not provide for the same.

4.12.8 Interest on Working Capital (IoWC)

CSPGCL's submission

CSPGCL submitted that IoWC for FY 2015-16 has been computed in accordance with CSERC MYT Regulations, 2012. CSPGCL submitted that it has considered the interest rate of SBI Base Rate as on 30 September, 2014 plus 350 basis points. CSPGCL has claimed the IoWC of Rs. 19.40 Crore for FY 2015-16.

Commission's Analysis

The Commission has computed IoWC for FY 2015-16 in accordance with CSERC MYT Regulations, 2012. The Commission has considered the interest rate of SBI Base Rate as on 30 September, 2014 plus 350 basis points. The Commission has approved IoWC of Rs. 18.19 Crore for FY 2015-16.

4.12.9 Operation and Maintenance (O&M) expenses

CSPGCL's submission

CSPGCL submitted that the O&M expenses for FY 2015-16 have been computed in accordance with CSERC MYT Regulations, 2012.

CSPGCL submitted that the normative O&M covers the expenses incurred on employees, repair and maintenance and A&G expenses related to the station. However, such expenses do not cover expenses, which may occur in compliance of R&R policy of the State. CSPGCL submitted that as per State Government Policy, in addition to compensation for land, all land oustees, who qualify under the scheme, are to be given either employment or they are to be compensated with NREGA rates up to 60 years of age. As providing job to all effected persons may not be feasible, such payment may continue for long term. CSPGCL submitted that such R&R expenses may not be met through normative O&M and additional revenue requirement may have to be considered for the same. CSPGCL requested the Commission to allow such additional expenses during true up. CSPGCL has claimed the O&M expenses of Rs. 98.66 Crore for FY 2015-16.

Commission's Analysis

The Commission has computed the O&M expenses for FY 2015-16 in accordance with CSERC MYT Regulations, 2012.

As regards the prayer of CSPGCL regarding the allowance of additional expense on account of State Govt.'s Policy, the Commission is of the view that any view regarding the same cannot be taken without careful study of the State Govt.'s policy in conjunction with the provisions of the CSERC MYT Regulations, 2012. Hence, the Commission shall take a view regarding the same at appropriate time.

The Commission has approved the O&M expenses of Rs. 98.66 Crore for FY 2015-16.

4.12.10 Annual Fixed Cost

The Annual Fixed Cost approved by the Commission for Korba West TPP (Extn.) for FY 2015-16 is as shown in the Table below:

Table 4.12-4: Annual Fixed Cost for Korba West TPP (Extn.) FY 2015-16
(Rs. Crore)

Particulars	FY 2015-16	
	CSPGCL Petition	Approved
Depreciation	194.31	170.80
Interest on Loan and Finance charges	359.63	322.17
Return on Equity	87.52	79.34
Interest on Working Capital	19.40	18.19
O & M Expenses	98.66	98.66
Less - Non Tariff Income	3.10	3.10
Total Annual Fixed Cost (AFC)	756.41	686.06

4.13 MARWA TPS

4.13.1 Annual Fixed Charges (AFC) for Marwa TPS

CSPGCL has not filed any petition for approval of annual fixed cost as the plant yet to achieve commercial operation. As CSPDCL has submitted availability of power from Marwa TPS during FY 2015-16 and considering the submission of CSPDCL, the Commission has estimated power purchase from this plant during FY 2015-16. Therefore, Commission is determining provisional tariff for Marwa TPS. The Commission has considered following aspects while determining the AFC.

The Commission, in its Order dated June 01, 2010 in P No 08 of 2010 related to business plans of CSPGCL, has considered Rs. 6317.70 Crore for Marwa TPS as proposed by CSPGCL with remark that prudence check will be conducted while determination of tariff on successful completion and commercialization of the project.

For Marwa TPS, the Commission in its Order dated June 01, 2010 in P No 08 of 2010 related to business plan of CSPGCL considered capital cost as Rs. 6.32 Crore/MW (with IDC) which is almost same as capital cost of Rs. 6.31 Crore/MW (with IDC) for Korba West TPP (Extn.). As the petition for determination for tariff for Marwa TPS is yet to be filed and the power from this project is likely to be available in this FY 2015-16, the Commission has considered the annual fixed cost of first Unit of this project, provisionally on the basis of annual fixed cost of Korba West TPP (Extn.) i.e. Rs. 686.06 Crore. After the COD of second Unit of Marwa TPS, the provisional annual fixed cost of this project shall be considered as Rs. 1372.12 Crore (2x686.06 Crore).

4.13.2 Energy Charges for Marwa TPS

As per information available the landed price of primary fuel is estimated to be higher than the Korba West TPP (Extn.) due to higher transportation cost. The Commission has provisionally considered landed price of primary fuel as Rs. 1309.49/MT (for coal) and Rs. 49431/kl for secondary fuel. For determination energy charges (ECR), normative parameters has been considered same as specified in the CSERC MYT Regulation 2012. Gross calorific value of primary fuel and secondary fuel have been considered same as considered for Korba West TPP (Extn.).

Table 4.13-5: Energy Charge Rate of Marwa TPS for FY 2015-16

Particulars	UoM	Marwa TPS
Gross Heat Rate (GHR)	kCal/kWh	2424.000
Specific fuel oil consumption (SFC)	ml/kWh	1.000
Calorific value of secondary fuel (CVSF)	kCal/ml	10.000
Landed Price of Primary Fuel (LPPF)	Rs./kg	1.309
Calorific value of primary fuel (CVPF)	kCal/kg	3439.000
Landed Price of secondary Fuel (LPSFi)	Rs./ml	0.049
Auxiliary Consumption	%	6.000
ECR	Rs./kWh	1.030

The energy charges for Marwa TPS has been provisionally considered as Rs. 1.03 per kWh, and any variation in the energy charges on account of change in fuel prices shall be recovered by CSPGCL from CSPDCL through the FCA mechanism.

Billing of power supply by Korba West TPP (Extn.) and Marwa TPS project shall be as per the provisions of the CSERC MYT Regulations 2012. The power supply by these two projects shall be based on ABT mechanism. Deviations from the schedule shall be governed by the deviation settlement mechanism applicable for existing thermal plants of CSPGCL.

5. FINAL TRUE UP FOR FY 2013-14 AND DETERMINATION OF TRANSMISSION TARIFF FOR FY 2015-16 FOR CSPTCL

5.1 TRANSMISSION SYSTEM OF CSPTCL

The physical status of transmission system of CSPTCL as on March 31, 2014, as submitted by CSPTCL is shown in the Table below:

Table 5.1-1: Physical status of transmission system of CSPTCL as on March 31, 2014

Particulars	Units	As on March 31, 2014
A. EHV Transmission Lines		
400 kV	Ckt. km.	1266.78
220 kV	Ckt. km.	3130.87
132 kV	Ckt. km.	5299.96
Total	Ckt. km.	9697.61
B. EHV Substations		
400 kV	No.	2
220 kV	No.	16
132 kV	No.	64
Total	No.	82
C. Transformation Capacity of EHV Substations		
400/220 kV	MVA	1575
220/132 kV	MVA	5070
132/33kV	MVA	5736
Total	MVA	12381

5.2 AGGREGATE REVENUE REQUIREMENT

5.2.1 Annual charges for Intra-State transmission network

Regulation 47.1 of the CSERC MYT Regulations, 2012 specifies as under:

“47.1 Aggregate Revenue Requirement of transmission licensee shall comprise the following components, viz.

- (a) Return on Equity (ROE)*
- (b) Interest and finance charges;*
- (c) Depreciation;*
- (d) Operation and maintenance expenses;*
- (e) Interest on working capital;*

Less:

- (f) Non-Tariff Income;*

NOTE:

1. *Non-Tariff Income as specified in the Regulation 50, shall be subtracted from the sum of above (a to e) to arrive at AFC.*
2. *Pension & Gratuity Fund Contribution shall be recoverable in equal monthly installments as may be determined by the Commission in the Tariff order.*
3. *The Statutory Taxes and Duties shall be recoverable on reimbursement basis, as per actual.”*

5.2.2 GFA for FY 2013-14

CSPTCL’s submission

CSPTCL submitted that the Commission, in the MYT Order, had approved the methodology for determination of capital structure of GFA into consumer contribution, debt and equity. CSPTCL submitted that the Commission had approved the capitalisation of Rs. 418.15 Crore as against Rs. 519.42 Crore submitted for true up for FY 2010-11. CSPTCL submitted that the Commission had directed it to submit the opening CWIP details and asset register at the time of final true up for FY 2011-12 but the same could not be submitted due to non-availability at the time of final true up for FY 2011-12. CSPTCL submitted that the asset register has been finalised and the GFA addition in FY 2010-11 has been considered as per the audited accounts.

CSPTCL submitted that the Commission, vide its Order dated July 11, 2013, in Suo-Motu Petition No. 47/2012(M) had approved the consumer contribution for CSPTCL as on January 1, 2009 as Rs. 55.51 Crore. CSPTCL submitted that the same had been considered in the capital structure approved for CSPTCL in the MYT Order.

CSPTCL submitted that as on January 1, 2009, most of the works were under execution. The works which had been completed by that time could also not be taken under GFA as no amount against the consumer contribution was allocated to the transmission company in provisional opening balances notified by the State Govt. and hence, the expenditure against such consumer contribution works undertaken by the Petitioner was considered under the Capital Work in Progress (CWIP) till apportionment of consumer contribution to CSPTCL or fresh deposits by different clients. Some works related with consumer contribution against the list submitted earlier have been capitalized in the subsequent years and has been mentioned in subsequent Tariff Petitions as consumer contribution.

CSPTCL submitted that in view of the above, the capital structure approved by the Commission in the MYT Order by taking the opening consumer contribution as on FY 2008-09 as Rs 91.84 Crore is not justified and requested the Commission to revise the capital structuring retrospectively for the purpose of tariff/true-up exercise.

CSPTCL submitted that it has considered the opening consumer contribution approved by the Commission for FY 2008-09 (January to March) i.e., Rs. 36.34 Crore (after deducting the amount of Rs. 55.51 Crore) for capital structuring based on the methodology approved in the MYT Order.

CSPTCL submitted that the capital structure for FY 2013-14 has been determined based on the following:

- Closing CWIP of Rs. 566.25 Crore has been considered as per the audited accounts for FY 2013-14.
- The actual loan addition of Rs. 185.28 Crore has been considered as per the audited accounts for FY 2013-14.
- The consumer contribution of Rs. 5.59 Crore has been considered as per the audited accounts for FY 2013-14.
- Normative equity addition has been considered as 20% of the total asset addition in FY 2013-14.
- GFA addition of Rs. 494.54 Crore (net of GFA addition for SLDC) has been considered as per the audited accounts for FY 2013-14.

The capital structure for FY 2013-14 as submitted by CSPTCL is shown in the Table below:

Table 5.2-1: Capital Structure for FY 2013-14 as submitted by CSPTCL

(Rs. Crore)

Particulars	MYT Order	CSPTCL Petition
Opening GFA	2150.65	2510.72
Opening CWIP	789.71	757.05
Opening Capex	2940.36	3267.77
Capitalisation during the year	1112.44	494.59
Closing GFA	3263.09	3005.31
Closing CWIP	466.96	566.25
Closing Capex	3730.04	3571.56
Grants and Consumer Contribution		
Opening value of grants and consumer contribution	95.96	40.47
Addition during the year	0.00	5.59
Closing value of grants and consumer contribution	95.96	46.06

Particulars	MYT Order	CSPTCL Petition
Consumer contribution in opening GFA	70.19	37.35
Consumer contribution in closing GFA	83.95	42.94
Actual Loan		
Opening Loan	1592.81	1549.22
Addition during the year	889.95	185.28
Closing Loan	2482.76	1734.50
Loan in opening GFA	1139.25	1407.73
Loan in closing GFA	2015.44	1798.94
Equity		
Opening Equity	1251.59	1678.08
Addition during the year	(100.27)	112.92
Closing Equity	1151.32	1791.00
Equity in opening GFA	941.21	1065.64
Equity in closing GFA	1163.70	1163.44
Average Gross Equity during the year	1052.46	1114.54
Permissible Equity in opening GFA	601.50	681.36
Permissible Equity in closing GFA	823.99	779.16
Average Gross Permissible Equity during the Year	712.75	730.26
Normative Loan		
Opening Normative Loan	339.71	384.28
Closing Normative Loan	339.71	384.28

The means of finance for the GFA addition during FY 2013-14 as submitted by CSPTCL, is shown in the Table below:

Table 5.2-2: Means of Finance for GFA addition in FY 2013-14

(Rs. Crore)

Particulars	FY 2013-14
GFA addition in FY 2013-14	494.59
Means of Finance	
Consumer contribution	5.59
Equity	97.80
Debt	391.20

Commission's Analysis

In reply to the Commission's query, CSPTCL submitted the list of assets capitalised in FY 2013-14.

In reply to the Commission's query, CSPTCL submitted that the opening GFA for FY 2013-14 as per the audited accounts is Rs. 2524.80 Crore, which includes the SLDC assets of Rs. 14.08 Crore. The opening GFA for CSPTCL excluding the SLDC assets works out to Rs. 2510.72 Crore for FY 2013-14.

After scrutiny of the material placed on record, the Commission has considered the GFA addition in FY 2013-14 as submitted by CSPTCL. The Commission has considered the means of finance as submitted by CSPTCL.

The GFA addition and means of finance approved by the Commission in final true up for FY 2013-14 is as shown in the Table given below:

Table 5.2-3: GFA addition and Means of Finance approved in final true up for FY 2013-14

(Rs. Crore)

Particulars	CSPTCL Petition	Approved
GFA addition in FY 2013-14	494.59	494.59
Means of Finance		
Consumer contribution	5.59	5.59
Equity	97.80	97.80
Debt	391.20	391.20

5.2.3 Return on Equity (RoE)

CSPTCL's submission

CSPTCL submitted that the Commission, in the MYT Order, had approved RoE of Rs. 138.11 Crore for FY 2013-14. As against the same, the RoE for FY 2013-14 considering the equity as per the audited accounts for FY 2013-14 and considering the rate of return of 15.50% grossed up with MAT Rate of 20.01% works out to Rs. 141.50 Crore. CSPTCL requested the Commission to approve the RoE of Rs. 141.50 Crore in final true up for FY 2013-14.

Commission's Analysis

The Commission has considered the closing equity of Rs. 652.23 Crore approved in the final true up for FY 2012-13 as the opening Equity for FY 2013-14. The Commission has considered the approved equity addition in FY 2013-14. The Commission has approved the RoE for FY 2013-14 considering the base rate of RoE of 15.50% grossed up with MAT Rate of 20.01%, in accordance with the CSERC MYT Regulations, 2012, as shown in the Table below:

Table 5.2-4: RoE approved in final true up for FY 2013-14**(Rs. Crore)**

Particulars	MYT Order	CSPTCL etition	Approved
Permissible Equity in Opening GFA	601.50	681.36	652.23
Permissible Equity in Closing GFA	823.99	779.16	750.03
Average Gross Permissible Equity during the Year	712.75	730.26	701.13
Rate of Return on Equity	19.377%	19.377%	19.377%
Return on Equity	138.11	141.50	135.86

5.2.4 Interest and finance charges**CSPTCL's submission**

CSPTCL submitted that the Commission, in the MYT Order, had approved the interest and finance charges of Rs. 161.74 Crore for FY 2013-14. As against the same, the interest and finance charges for FY 2013-14 considering the actual GFA addition is Rs. 171.41 Crore considering the weighted average interest rate of 11.96%. CSPTCL requested the Commission to approve the interest and finance charges of Rs. 171.41 Crore in final true up for FY 2013-14.

Commission's Analysis

The Commission has considered the closing loan balance approved in the true up for FY 2012-13, as the opening loan balance for FY 2013-14. The approved debt component of GFA addition in FY 2013-14 has been considered as the loan addition during the year. The allowable depreciation for the year has been considered as the normative repayment for the year. The actual weighted average interest rate of 11.96% has been considered for computation of interest expenses. The interest and finance charges approved by the Commission in final true up for FY 2013-14 are as shown in the Table below:

Table 5.2-5: Interest and finance charges approved in final true up for FY 2013-14**(Rs. Crore)**

Particulars	MYT Order	CSPTCL Petition	Approved
Total Opening Net Loan	1007.85	1302.71	1186.43
Repayment during the period	127.03	130.24	123.11

Particulars	MYT Order	CSPTCL Petition	Approved
Additional Capitalization of Borrowed Loan during the year	876.19	391.20	391.20
Total Closing Net Loan	1757.01	1563.67	1454.52
Average Loan during the year	1382.43	1433.19	1320.48
Wt. Avg. Interest Rate	11.70%	11.96%	11.96%
Interest Expense	161.74	171.41	157.93

5.2.5 Depreciation

CSPTCL's submission

CSPTCL submitted that the depreciation for FY 2013-14 has been claimed in accordance with CSERC MYT Regulations, 2012. CSPTCL requested the Commission to approve the depreciation of Rs. 130.24 Crore in final true up for FY 2013-14.

Commission's Analysis

CSPTCL has claimed Rs. 13.17 Crore for FY 2013-14 towards the depreciation on fully depreciated assets. The Commission asked CSPTCL to submit the basis and computations for the same. CSPTCL submitted that the Commission had approved the depreciation on fully depreciated assets for FY 2012-13 as Rs. 12.63 Crore. The depreciation on fully depreciated assets for FY 2013-14 has been computed as Rs. 0.54 Crore. Hence, the depreciation on fully depreciated assets has been considered as Rs. 13.17 Crore for FY 2013-14 (12.63+0.54).

Further, the Commission observed discrepancies in depreciation for FY 2013-14 submitted at various places of the Petition. The Commission asked CSPTCL to reconcile the same. CSPTCL has provided the reconciliation of the same.

The Commission has considered the closing GFA for FY 2012-13 approved in the true up for FY 2012-13, as the opening GFA for FY 2013-14. The approved GFA addition for FY 2013-14 has been considered for calculating the closing GFA for FY 2013-14. The closing value of consumer contribution for FY 2012-13 approved in the true up for FY 2012-13, has been considered as the opening value of consumer contribution for FY 2013-14. The approved consumer contribution in GFA addition for FY 2013-14 has been considered as addition during the year. The depreciation has been computed considered the weighted average depreciation rate of 5.25% for FY 2013-14, as submitted by

CSPTCL. Further, the Commission has deducted the depreciation on asset addition through consumer contribution and depreciation on fully depreciated assets, while approving the allowable depreciation for FY 2013-14. The depreciation approved in final true up for FY 2013-14 is as shown in the Table given below:

Table 5.2-6: Depreciation approved in final true up for FY 2013-14 (Rs. Crore)

Particulars	MYT Order	CSPTCL Petition	Approved
Opening GFA	2121.95	2510.72	2404.15
Additional Capitalisation during the Year	1112.44	494.59	494.59
Closing GFA	3264.42	3005.31	2898.74
Average GFA for the year	2708.20	2758.02	2651.45
Depreciation @ rates as per applicable Regulation	147.67	144.78	139.19
Opening consumer contribution		23.27	52.50
Addition: consumer contribution during the year		5.59	5.59
Closing consumer contribution		28.86	58.09
Average consumer contribution		26.07	55.30
Less: Depreciation on consumer contribution on live assets	2.75	1.37	2.90
Less: Depreciation on Fully Depreciated Assets	11.89	13.17	13.17
Net Depreciation	127.03	130.24	123.11

5.2.6 Interest on Working Capital (IoWC)

CSPTCL's submission

CSPTCL submitted that the normative IoWC for FY 2013-14 has been computed in accordance with the CSERC MYT Regulations, 2012, considering the interest rate of 13.20%. CSPTCL requested the Commission to approve the IoWC of Rs. 11.70 Crore in the final true up for FY 2013-14.

Commission's Analysis

The Commission has computed the normative IoWC for FY 2013-14 in accordance with the CSERC MYT Regulations, 2012. The Commission has considered the interest rate of 13.20%, which is the Base Rate of SBI as on April 1, 2013 plus 350 basis points. The normative IoWC approved by the Commission in the final true up for FY 2013-14, is shown in the Table below:

Table 5.2-7: IoWC approved in final true up for FY 2013-14

(Rs. Crore)

Particulars	MYT Order	CSPTCL Petition	Approved
Operation and Maintenance expenses for one Month	14.76	14.45	14.63
Maintenance spares at 15% of O&M Expense	26.57	26.01	26.34
Receivables equivalent to 1 month of fixed cost	38.29	48.15	42.70
Total working capital requirement	79.62	88.61	83.67
Applicable Interest Rate (%)	13.20%	13.20%	13.20%
Interest on working capital	10.51	11.70	11.04

5.2.7 Operation and Maintenance (O&M) expenses

CSPTCL's submission

CSPTCL submitted that the Commission, in the MYT Order, had approved the O&M expenses of Rs. 177.14 Crore for FY 2013-14. As against the same, the actual O&M expenses for CSPTCL for FY 2013-14 are Rs. 173.41 Crore. CSPTCL requested the Commission to approve the O&M expenses of Rs. 173.41 Crore in the final true up for FY 2013-14.

CSPTCL submitted that as actual O&M expenses are lower than the normative O&M expenses approved by the Commission in the MYT Order, the sharing of 50% of the gain is allowable in accordance with CSERC MYT Regulations, 2012. CSPTCL requested the Commission to approved Rs. 1.86 Crore on account of sharing of gain on O&M expenses for FY 2013-14.

Commission's Analysis

Regulation 47.5 of the CSERC MYT Regulations, 2012 specifies as under:

"47.5 Operation and Maintenance expenses

47.5.1 Operation and Maintenance (O&M) expenses for Transmission licensee shall include:

I. Employee costs;

II. Administrative and General expenses

III. Repairs and Maintenance

- (a) *The Operation and Maintenance expenses, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.*
- (b) *The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010- 11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived, shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.*

At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period.

Provided further that impact of pay revision (including arrears), if any, shall be considered on during the true-up as per audited /unaudited accounts, subject to prudence check and any other factor considered appropriate by the Commission.

47.5.2 The additional O&M Expenses on account of new transmission lines/ substations commissioned after March 31, 2013 shall be allowed by the Commission subject to prudence check at the time of truing up exercise.”

In reply to the Commission’s query, CSPTCL submitted the reconciliation of the actual O&M expenses submitted in the Petition with the audited accounts. The Commission observed that the actual O&M expenses claimed by CSPTCL are excluding the O&M expenses for SLDC.

The Commission asked CSPTCL to submit the basis of capitalisation of O&M expenses in FY 2013-14. CSPTCL submitted that it had identified the cost centres, which are exclusively involved in the activities of capital addition. The employee expenses and A&G expenses of the identified cost centres which have been booked under the revenue expenses in the SAP system have been deducted and transferred to CWIP. The corresponding amount of overheads is being transferred to assets group on capitalisation of assets.

In the MYT Order dated July 12, 2013, the Commission had approved normative O&M expense of Rs. 177.14 Crore for FY 2013-14 by considering O&M expense of Rs. 162.20

Crore approved in the MYT order dated July 12, 2013 as base O&M expense for FY 2012-13 and escalating the same by the inflation rate of 9.21%. The Commission has approved 8.25% as inflation index for FY 2013-14 on the basis of Regulation 47.5 of CSERC MYT Regulation 2012. The Commission has now approved the normative O&M expense of Rs. 175.58 Crore in final true up for FY 2013-14. The revised normative O&M expense for FY 2013-14 is as shown in the Table given below:

Table 5.2-8: Normative O&M expenses in final true up for FY 2013-14

(Rs. Crore)

Particular	Base O&M expense for 2012-13 (Rs. Crore)	Normative O&M expense for 2013-14, considering escalation rate 8.25% (Rs. Crore)
Normative O&M	162.2	175.58

Further, the Commission has revised the normative O&M expense for FY 2013-14 after considering the capitalisation done by CSPTCL in FY 2013-14. Therefore, the Commission has approved normative O&M expense of Rs. 156.96 Crore in the true-up for FY 2013-14 as shown in the Table given below:

Table 5.2-9: Normative O&M expenses approved in final true up for FY 2013-14

(Rs. Crore)

Particulars	Approved
Normative O&M expense	175.58
Less: Capitalisation	
Employee Cost capitalized	(16.28)
R&M and A&G Expenses capitalised	(2.34)
Net O&M expense	156.96

The Commission observes that as per the audited annual accounts of CSPTCL for FY 2013-14, particularly with reference to segmental reporting, the employee expenses are Rs.116.54 Crore and R&M and A&G expenses are Rs.56.22 Crore. Therefore, the actual net O&M expenses are Rs. 172.76 Crore for FY 2013-14. The Commission has approved

capitalisation done by CSPTCL in FY 2013-14. The Commission has approved net O&M expense of Rs. 154.14 Crore for FY 2013-14

Table 5.2-10: Net O&M expenses approved in final true up for FY 2013-14
(Rs. Crore)

Particulars	CSPTCL Petition	Approved
Employee expenses	133.39	116.54
R&M expenses	58.65	56.22
A&G expenses		
Less: Capitalisation		
Employee Cost capitalised	(16.28)	(16.28)
R&M and A&G Expenses capitalised	(2.34)	(2.34)
Net O&M expense	173.42	154.14

Further, as O&M expenses are a controllable factor in accordance with CSERC MYT Regulations, 2012, the Commission has carried out the sharing of gain on O&M expenses for FY 2013-14 as shown in the Table below:

Table 5.2-11: Sharing of gain on O&M expenses approved in final true up for FY 2013-14
(Rs. Crore)

Particulars	CSPTCL Petition	Approved
Normative O&M expenses	177.14	156.96
Actual Net O&M Expenses (excluding Pension and Gratuity)	173.41	154.14
Total Gain	3.73	2.82
CSPTCL's Share (1/2 of the Total Gain)	1.86	1.41

Hence, the total O&M expenses approved in final true up for FY 2013-14 is Rs. 174.17 Crore (175.58-1.41).

5.2.8 Contribution to Pension and Gratuity fund

CSPTCL's submission

CSPTCL submitted that the Commission, in the MYT Order, had approved the contribution to pension and gratuity fund for FY 2013-14 as Rs. 14.50 Crore. As against the same, the actual contribution to pension and gratuity fund as per the audited accounts for FY 2013-14 is Rs. 15.12 Crore. Out of the same, the share of CSPTCL is Rs. 14.50

Crore and the share of SLDC is Rs. 0.62 Crore. CSPTCL requested the Commission to approve the contribution to pension and gratuity fund for FY 2013-14 as Rs. 14.50 Crore.

Commission's Analysis

After scrutiny of the submissions of CSPTCL, the Commission has approved the contribution to pension and gratuity fund of Rs. 14.50 Crore in the final true up for FY 2013-14.

5.2.9 Prior period expenses/(income)/other debits

CSPTCL's submission

CSPTCL submitted that the net prior period income for FY 2013-14 as per the audited accounts is Rs. 154.19 Crore. CSPTCL submitted that the late payment surcharge has been levied on the outstanding dues from CSPDCL and accordingly, the late payment surcharge for FY 2011-12 is Rs. 22.01 Crore and late payment surcharge for FY 2012-13 is Rs. 73.77 Crore. CSPTCL submitted the same have been accounted as prior period income in the accounts of FY 2013-14. The past period adjustments could be made only after the issuance of the Commission's Order on final true up for FY 2011-12 and FY 2012-13. Hence, the prior period income to be considered in the final true up for FY 2013-14 is Rs. 58.40 Crore (154.19-22.01-73.77). CSPTCL requested the Commission to approve the net prior period income of Rs.58.40 Crore in the final true up for FY2013-14.

Commission's Analysis

The Commission has scrutinised the prior period expenses and prior period income for FY 2013-14. CSPTCL has submitted prior period income in the true-up for FY 2013-14 as Rs. 58.40 Crore. However, as per the audited accounts for FY 2013-14 the net prior income is Rs. 154.19 Crore which includes the late payment surcharge of Rs. 95.79 Crore (i.e., Rs. 22.01 Crore for FY 2011-12 and Rs. 73.77 Crore for FY 2012-13). Late payment surcharge of Rs. 95.79 Crore has not been considered in true-up for FY 2013-14 as neither CSPTCL nor CSPDCL consider the same as revenue or expense. The Commission has disallowed the prior period expenses of Rs. 0.70 Crore towards Other Charges, which could not be justified. The net prior period income approved by the Commission in the final true up for FY 2013-14 is as shown in the Table given below:

Table 5.2-12: Net prior period expense/(income) approved by the Commission in final true up for FY 2013-14

(Rs. Crore)

Particulars	CSPTCL Petition	Approved
Prior period Income		
Transmission Charges Related to Previous Year	(54.81)	(54.81)
Excess Interest Charged during previous year	(5.59)	(5.59)
Prior period Expenses		
Employee Costs	1.30	1.30
Other Charges	0.70	0.00
Net Prior Period (Income) / Expenses	(58.40)	(59.10)

5.2.10 Non-Tariff Income

CSPTCL's submission

CSPTCL submitted that the Commission, in the MYT Order, had approved the Non-Tariff Income of Rs. 28.95 Crore. As against the same, the actual Non-Tariff Income for FY 2013-14 as per the audited accounts is Rs. 45.12 Crore. CSPTCL requested the Commission to approve the Non-Tariff Income of Rs. 45.12 Crore in final true up for FY 2013-14.

Commission's Analysis

After scrutiny of the submissions of CSPTCL and the audited accounts, the Commission has approved the Non-Tariff Income of Rs. 45.12 Crore in the final true up for FY 2013-14.

5.2.11 ARR

Based on the above, the ARR approved in the final true up for FY 2013-14 is shown in the Table below:

Table 5.2-13: ARR approved in final true up for FY 2013-14 (Rs. Crore)

Particulars	MYT Order	CSPTCL Petition	Approved
Gross O & M Expenses	177.14	192.04	175.58
O&M Expenses capitalised	0.00	(18.62)	(18.62)
Contribution to Pension and Gratuity	14.50	14.50	14.50
Depreciation	127.03	130.24	123.11
Interest on Loan and Finance Charges	161.74	171.41	157.93
Interest on Working Capital	10.51	11.70	11.04
Total Expenses	490.92	501.27	463.54

Particulars	MYT Order	CSPTCL Petition	Approved
Return on Equity	138.11	141.50	135.86
Net Prior Period Expenses/(Credit)/Other Debits	0.00	(58.40)	(59.10)
Less - Non Tariff Income	(28.95)	(45.12)	(45.12)
Annual Revenue Requirement	600.08	539.25	495.18
Add: Gains for savings in O&M expense		1.86	1.41
Add: Incentives for reduction in transmission losses		17.40	
Net Annual Revenue Requirement	600.08	558.51	496.58

5.3 REVENUE SIDE TRUE UP

5.3.1 Revenue from transmission charges

CSPTCL's submission

CSPTCL submitted that the transmission charges approved in the MYT Order was implemented from July, 2013. For the months of April to June, 2013, the transmission charges approved in the previous Tariff Order were applicable.

CSPTCL submitted that the revenue billed in FY 2013-14 is Rs. 577.80 Crore. CSPTCL requested the Commission to approve the same in the final true up for FY 2013-14.

Commission's Analysis

After scrutiny of the submissions of CSPTCL and the audited accounts, the Commission has considered the revenue from transmission charges for FY 2013-14 as Rs. 582.19 Crore which includes revenue from CSPDCL as Rs. 553.84 Crore and from others as Rs. 28.35 Crore in the final true up for FY 2013-14.

Table 5.3-1: CSPTCL Revenue approved in final true up for FY 2013-14

(Rs. Crore)

Revenue of CSPTCL	
CSPDCL	553.84
Others	28.35
Total	582.19

5.4 INCENTIVE FOR LOWER TRANSMISSION LOSS IN FY 2013-14

5.4.1 Transmission System Availability

CSPTCL's submission

CSPTCL submitted the actual Transmission System Availability for FY 2013-14 as 99.73% for 400 kV System, 99.78% for 220 kV System and 99.84% for 132 kV System.

Commission's Analysis

The Commission has considered the actual System Availability for FY 2013-14 as submitted by CSPTCL.

5.4.2 Transmission Loss

CSPTCL's submission

CSPTCL submitted that the Commission in the MYT Order had approved the target loss level of 4.40% for FY 2013-14. As against the same, the actual loss level for FY 2013-14 is 3.79%. The computation of actual loss level for FY 2013-14 submitted by CSPTCL is shown in the Table below:

Table 5.4-1: Transmission Loss for FY 2013-14 as submitted by CSPTCL

Particulars	CSPTCL Petition
Energy injected into Transmission System (MU)	19266.10
Energy output from the Transmission System (MU)	
- EHV Sales	1843.48
- Energy delivered to Discom on 33 kV side Power Transformer	16692.11
Net Energy delivered (MU)	18535.59
Energy Loss (MU)	730.52
Transmission Loss (%)	3.79%

CSPTCL submitted that the CSERC MYT Regulations, 2012 provides for incentive for better performance. CSPTCL submitted that the eligible incentive for FY 2013-14 on account of lower transmission loss is Rs. 17.40 Crore, as shown in the Table below:

Table 5.4-2: Incentive for lower Transmission Loss for FY 2013-14 as submitted by CSPTCL

Particulars	CSPTCL Petition
Actual energy input to Discom (MU)	19266.10
Transmission Loss (MU)	730.52
Normative Transmission Loss (MU)	847.11
Energy saved (MU)	117.19
Average Power Purchase Cost as per CSPDCL Petition (Rs./kWh)	2.97
Gain on account of lower transmission loss (Rs. Crore)	34.80
Sharing of gain (Rs. Crore)	17.40

CSPTCL requested the Commission to approve the incentive for lower transmission loss considering the average power purchase cost for CSPDCL as approved in the true up for CSPDCL for FY 2013-14.

Commission's Analysis

CSERC MYT Regulations, 2012 specifies the Transmission Loss as a controllable factor. The Commission in the true up of previous years has not considered the incentive for lower transmission loss for CSPTCL in the absence of proper energy accounting data. As no material change had been brought to the notice of the Commission based on which the earlier stand could be reviewed, the Commission has not considered the incentive on account of lower Transmission Loss for CSPTCL in final true up for FY 2013-14. Further, as directed earlier, henceforth, in the Petitions submitted by CSPTCL and CSPDCL, the Petitioners should submit a clear reconciliation of the figures of energy handled as well as amount of revenue and costs incurred, so that the same is clear to the Commission as well as the consumers. Further, CPSTCL and CPSDCL should ensure that the all the relevant points are metered and consistent data is submitted to the Commission.

5.5 SUMMARY OF FINAL TRUE UP FOR FY 2013-14

Based on the above, the summary of final true up for FY 2013-14 approved by the Commission is shown in the Table below:

Table 5.5-1: Summary of final true up for FY 2013-14 approved by the Commission (Rs. Crore)

Particulars	CSPTCL Petition	Approved
Annual Revenue Requirement	539.25	495.18
Add: Gains for savings in O&M expense	1.86	1.41

Particulars	CSPTCL Petition	Approved
Add: Incentives for reduction in transmission losses	17.40	0.00
Net Annual Revenue Requirement	558.51	496.58
Income/Revenue	577.80	582.19
Standalone Surplus/(Deficit)	19.30	65.41

The Commission approves the surplus of Rs. 65.41 Crore on true up for CSPTCL for FY 2013-14 as against Rs. 19.30 Crore claimed by CSPTCL.

The Commission has approved the net revenue surplus of Rs. 83.82 Crore after considering the holding cost and recovery through FY 2015-16.

5.6 DETERMINATION OF TRANSMISSION TARIFF FOR FY 2015-16 FOR CSPTCL

As per the CSERC (MYT) Regulations, 2012, for determination and recovery of transmission charges from the users of CSPTCL's system, the annual transmission cost (fixed cost) shall be recovered on a monthly basis as per the methodology specified in the Open Access Regulations.

The annual transmission charge for FY 2015-16 approved in the MYT Order dated July 12, 2013 is Rs. 834.92 Crore, and hence, monthly transmission charges are Rs. 69.58 Crore. According to Clause 33(1) of CSERC (Connectivity and Intra-State Open Access) Regulations, 2011, the transmission charges for the use of CSPTCL's system has to be shared by the long term open access customers (including CSPDCL) and medium term open access customers as per allotted capacity proportionately.

According to the CSERC (Connectivity and Intra-State Open Access) Regulations, 2011, the basis of sharing monthly transmission charge shall be the maximum demand in MW served by the CSPTCL's system in the previous financial year.

5.6.1 Short-term Open Access Charges

The information provided by SLDC reveals that for FY 2014-15, the maximum demand met by the State is 3948 MW. For estimating the energy input or energy to be handled by CSPTCL's system for FY 2014-15, the Commission has considered load factor of 85% on maximum demand met in the previous year (2014-15), which corresponds to 29397 MU. Accordingly, it is estimated that 29397 MU may be handled by CSPTCL's system in FY 2015-16. Accordingly, the short-term Open Access (STOA) charges for FY 2015-16 work out to Rs. 0.284 per kWh.

6. FINAL TRUE UP FOR SLDC FOR FY 2013-14

6.1 BACKGROUND

The Commission, vide its order dated July 9, 2013, approved the Annual Revenue Requirement for SLDC for FY 2013-14 to FY 2015-16 in accordance with CSERC SLDC Fees and charges Regulations, 2012.

Regulation 5 of the CSERC SLDC Fees and charges Regulations, 2012 specifies as under:

“5. Truing up of annual fees and operating charges:

5.1 The SLDC shall make a petition, in the formats approved by the Commission for carrying out truing up exercise by 30th November of the each year for the previous year.

.....

5.3 The Commission shall carry out the annual truing up exercise. The fees and charges recovered for a year shall be trued up and considered for determination of fees and charges for the next year, by the Commission after prudence check.

5.4 Where after the truing up, the fee & charges recovered if exceeds/falls short of the amount approved by the Commission under these regulations, the excess amount so recovered or shortfall to be recovered, as the case may be shall be adjusted while determining the fee and charges for the next year or as decided by the Commission.”

Hence, in accordance with the CSERC SLDC Fees and charges Regulations, 2012, SLDC is required to file the Petition for true up for FY 2013-14. However, SLDC has filed the instant petition for approval of final true up for FY 2013-14, provisional true up for FY 2014-15 and revised ARR for FY 2015-16.

The Commission clarifies that the CSERC SLDC Fees and charges Regulations, 2012 provide only for true up for the previous year, i.e., FY 2013-14 in the instant case. Hence, the Commission has only carried out the final true up for FY 2013-14 for SLDC in accordance with CSERC SLDC Fees and charges Regulations, 2012.

6.2 ANNUAL SLDC CHARGES

6.2.1 Components of Annual Charges

Regulation 11 of the CSERC SLDC Fees and charges Regulations, 2012 specifies as under:

“11. Components of annual charges: The annual charges shall consist of the following components, namely:-

- (a) Return on equity;*
- (b) Interest on loan capital;*
- (c) Depreciation;*
- (d) Operation and maintenance expenses;*
- (e) Interest on working capital;*
- (f) Pension fund.”*

6.2.2 GFA for FY 2013-14

SLDC’s submission

SLDC submitted that the opening GFA for FY 2013-14 has been considered the same as approved by the Commission in the MYT order at July 9, 2013. SLDC submitted that as against the capitalisation of Rs. 0.05 Crore approved by the Commission, there has been no capitalisation in FY 2013-14.

Commission’s Analysis

The Commission has considered the closing GFA approved for SLDC for FY 2012-13 in the final true up for FY 2012-13 as the opening GFA for FY 2013-14. The Commission has not considered any GFA addition in FY 2013-14 as the actual capitalisation in FY 2013-14 is zero.

6.2.3 Means of finance

SLDC’s submission

SLDC submitted that the GFA as on March 31, 2013 has been considered to be funded through equity as no debt has been taken over from CSPTCL.

Commission’s Analysis

The Commission has considered the closing equity and closing loan balance approved for FY 2013-13 in the final true up for FY 2012-13, as the opening equity and opening loan balance for FY 2013-14. The Commission has not considered any addition of loan or equity in FY 2013-14, as the actual capitalisation in FY 2013-14 is zero.

6.2.4 Return on Equity (RoE)

SLDC's submission

SLDC submitted that the permissible equity in opening GFA for FY 2013-14 has been considered the same as approved in the MYT order dated July 9, 2013. RoE has been computed by grossing up the base rate of 15.50% with the MAT Rate of 20.01%. SLDC requested the Commission to approve the RoE of Rs. 1.59 Crore in final true up for FY 2013-14.

Commission's Analysis

The Commission has considered the permissible equity in the closing GFA approved for FY 2012-13 in final true up for FY 2012-13 as the opening equity for the purpose of computation of RoE for FY 2013-14. The Commission has computed the RoE by grossing up the base rate of 15.50% with the MAT rate of 20.01%. The RoE approved by the Commission in the final true up for FY 2013-14 is shown in the Table below:

Table 6.2-1: RoE approved in final true up for FY 2013-14 (Rs. Crore)

Particulars	MYT Order	SLDC Petition	Approved
Permissible Equity in Opening GFA	8.15	8.15	5.37
Additional capitalisation during the year	0.05	0.00	0.00
Addition to equity due to increase in GFA (30%)	0.02	0.00	0.00
Permissible Equity in Closing GFA	8.16	8.15	5.37
Average Gross Permissible Equity during the Year	8.15	8.20	5.37
Rate of Return on Equity	19.38%	19.38%	19.38%
Return on Equity	1.58	1.59	1.04

6.2.5 Interest on loan capital

SLDC's submission

SLDC submitted that as the entire GFA of SLDC is funded by equity, it has considered the normative debt equity ratio of 70:30. The interest on normative loan has been computed by considering the interest rate of 12.25%, which is the benchmark PFC lending rate for CSPTCL based on the weighted average interest rate of PFC loans. SLDC requested the Commission to approve the interest on loan capital of Rs. 1.75 Crore in final true up for FY 2013-14.

Commission's Analysis

The Commission has considered the closing loan balance for FY 2012-13 approved in the final true up for FY 2012-13, as the opening loan balance for FY 2013-14. The allowable depreciation for the year has been considered as the normative repayment for the year. The interest on loan has been computed on the average loan for the year at the interest rate of 11.96%, which is the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of the year.

The interest on loan capital approved by the Commission in the final true up for FY 2013-14 is shown in the Table below:

Table 6.2-2: Interest on loan approved in final true up for FY 2013-14

(Rs. Crore)

Particulars	MYT Order	SLDC Petition	Approved
Total Opening Net Loan	14.96	14.96	8.33
Repayment during the period	1.25	1.39	0.87
Additional Capitalization of Borrowed Loan during the year	0.04	0.00	0.00
Total Closing Net Loan	13.75	13.58	7.46
Average Loan during the year	14.35	14.27	7.89
Wt. Avg. Interest Rate	11.70%	12.25%	11.96%
Interest Expense	1.68	1.75	0.94

6.2.6 Depreciation

SLDC's submission

SLDC submitted that its asset base comprises of SCADA system, computer terminals, equipment, building, etc. The asset base of SLDC has been identified from the accounts of CSPTCL by the asset segregation committee and the same has been considered in its computations. As the asset class wise segregation of the SLDC's asset base is not available, the weighted average depreciation rate has been considered for computing the depreciation for FY 2013-14. The asset base of Rs. 26.391 Crore as approved by the Commission has been considered in the computation of depreciation. SLDC requested the Commission to approve the depreciation of Rs. 1.39 Crore in the final true up for FY 2013-14.

Commission's Analysis

The Commission has considered the closing GFA for FY 2012-13 approved in the final true up for FY 2012-13, as the opening GFA for FY 2013-14. It is pertinent to note that the SLDC is not operationing as a separate Company. In view of this, the Commission has computed depreciation considering the weighted average depreciation rate of 5.25%, as considered for CSPTCL. The depreciation approved in the final true up for FY 2013-14 is shown in the Table below:

Table 6.2-3: Depreciation approved in final true up for FY 2013-14

(Rs. Crore)

Particulars	MYT Order	SLDC Petition	Approved
Opening GFA	26.39	26.39	16.58
Additional Capitalisation during the Year	0.05	0.00	0.00
Closing GFA	26.44	26.39	16.58
Average GFA for the year	26.42	26.39	16.58
Depreciation Rate	4.73%	5.25%	5.25%
Depreciation	1.25	1.39	0.87

6.2.7 Operation and Maintenance (O&M) expenses

SLDC's submission

SLDC submitted that the O&M expenses comprise of Employee expenses, Repair and Maintenance (R&M) expenses, and Administration and General (A&G) expenses. SLDC submitted that separate accounts are not being prepared for SLDC and the asset transfer scheme between SLDC and CSPTCL has not been notified.

SLDC has claimed the normative O&M expenses of Rs. 9.56 Crore for FY 2013-14 as against the approved O&M expenses of Rs. 7.90 Crore in the MYT Order. The actual O&M expenses for FY 2013-14 are Rs. 6.93 Crore.

Commission's Analysis

The Commission has approved the normative O&M expenses for FY 2013-14 by escalating the approved normative O&M expenses for FY 2012-13 by applying escalation rate of 8.25% computed which is in accordance with the Regulations. The normative O&M expenses approved in the final true up for FY 2013-14 is shown in the Table below:

Table 6.2-4: Normative O&M expenses approved in final true up for FY 2013-14
(Rs. Crore)

Particulars	MYT Order	Petition	Approved after final true up
Gross Employee Expense	7.90	7.08	7.17
Gross A&G Expense		1.14	
Gross R&M Expense		1.34	
O&M Expense	7.90	9.56	7.17

Further, as O&M expenses is a controllable item, and the actual O&M expenses is lower than the normative O&M expenses, the Commission has carried out the sharing of gain in O&M expenses as shown in the Table below:

Table 6.2-5: Sharing of gain in O&M expenses approved in final true up for FY 2013-14
(Rs. Crore)

Particulars	Approved
Normative O&M expenses	7.17
Actual O&M Expenses	6.93
Total Gain/(Loss)	0.24
SLDC's Share (1/2 of the Total Gain)	0.12

Hence, the Commission has approved the O&M expenses of Rs. 7.05 Crore in the final true up for FY 2013-14.

6.2.8 Interest on Working Capital (IoWC)

SLDC's submission

SLDC submitted that the IoWC for FY 2013-14 has been computed in accordance with CSERC SLDC Fees and charges Regulations, 2012. The rate of interest has been considered as 13.20%. SLDC requested the Commission to approve the IoWC of Rs. 0.41 Crore in the final true up for FY 2013-14.

Commission's Analysis

The Commission has approved the normative IoWC for FY 2013-14 in accordance with the CSERC SLDC Fees and charges Regulations, 2012. The rate of interest has been considered as 13.20%, which is the SBI Base Rate as on April 1, 2013 plus 350 basis points. The IoWC approved in the final true up for FY 2013-14 is shown in the Table below:

Table 6.2-6: IoWC approved in the final true up for FY 2013-14**(Rs. Crore)**

Particulars	MYT Order	SLDC Petition	Approved
Operation and Maintenance expenses for one Month	0.66	0.80	0.59
Maintenance spares at 15% of O&M Expense	1.18	1.43	1.06
Receivables equivalent to 1 month of fixed cost	0.94	0.88	0.92
Total working capital requirement	2.78	3.11	2.56
Applicable Interest Rate (%)	13.20%	13.20%	13.20%
Interest on working capital	0.37	0.41	0.34

6.2.9 Contribution to Pension Fund**SLDC's submission**

SLDC submitted that the pension fund of SLDC employees has not been segregated from CSPTCL's pension fund. The portion of pension fund attributable to SLDC has been worked out on pro-rata basis considering the employee strength as on April 1 of the preceding year. SLDC requested the Commission to approve Rs. 0.62 Crore towards pension fund for FY 2013-14.

Commission's Analysis

Regulation 17 of the CSERC SLDC Fees and charges Regulations, 2012 specifies as under:

“17. Pension fund:

Pension fund: For meeting up the past unfunded liabilities of erstwhile CSEB/State Power Companies employees appointed before 1.1.2004, a pension and gratuity trust has been created and funding to the same has been allowed in the past Tariff Orders of the Commission. The contribution to the fund shall be decided by the Commission on the same manner as specified for the State Power Companies. Till the time SLDC is part of STU, SLDC's share out of the STU contribution shall be decided on pro-rata basis. For the purpose of ratio determination, the employee strength as on 1st April of the preceding year shall be considered.”

The Commission, in the MYT Order, had approved contribution to pension fund as Rs. 0.63 Crore for FY 2013-14. The Commission has considered the actual contribution to pension fund of Rs. 0.62 Crore in the final true up for FY 2013-14.

6.2.10 Annual SLDC Charges

Based on the above, the Annual SLDC Charges approved in the final true up for FY 2013-14 is as shown in the Table given below:

Table 6.2-7: Annual SLDC Charges approved in the final true up for FY 2013-14

(Rs. Crore)

Particulars	MYT Order	SLDC Petition	Approved
O & M Expenses	7.90	9.56	7.05
Contribution to Pension and Gratuity	0.63	0.62	0.62
Depreciation	1.25	1.39	0.87
Interest on Loan and Finance Charges	1.68	1.75	0.94
Interest on Working Capital	0.37	0.41	0.34
Return on Equity	1.58	1.59	1.04
Annual SLDC Charges	13.40	15.32	10.86

6.3 REVENUE SIDE TRUE UP

6.3.1 Revenue from SLDC Charges

SLDC's submission

SLDC submitted the actual revenue from SLDC Charges for FY 2013-14 as Rs. 10.98 Crore.

Commission's Analysis

The Commission has considered the revenue from SLDC Charges for FY 2013-14 as Rs. 10.98 Crore as submitted by SLDC, for the purposes of truing up.

6.3.2 SLDC Development Fund

SLDC's submission

SLDC submitted that the revenue of Rs. 1.38 Crore earned in FY 2013-14 from Registration charges, EIR charges, STOA charges, and recovery through other charges has been considered under SLDC Development fund. SLDC requested the Commission not to consider the SLDC Development fund as revenue in FY 2013-14.

Commission's Analysis

Regulation 9 of the CSERC SLDC Fees and charges Regulations, 2012 specifies as under:

“9. SLDC Development Fund:

9.1 In the previous regulations, provision for SLDC Development Fund was specified for servicing the dividend payment, meeting stipulated equity portion in asset creation, margin money for raising loan from the financial institutions etc. after due approval of the Commission.

The fund requirement for the above purposes shall now onwards be met in the same manner as it is met by the licensees / STU/ generating companies under the relevant regulations. The outstanding SLDC Development Fund, as may be available on March 31, 2013, shall now be part of capital reserves of SLDC and till a separate company is notified by the State Govt., the same shall be part of capital reserve of STU, which may be utilized for meeting stipulated equity portion in asset creation after due approval of the Commission.

9.2 The charges on account of, interest on deposit and other income of the SLDC such as registration fee, application fee, short term OA charges (operating charges) and miscellaneous charges such as services catered to generators opting Renewable Energy Certificate (REC) mechanism etc. shall now be treated as non tariff income of SLDC. At the time of true up, such income shall be adjusted towards the charges payable by intra-State buyers, intra-State sellers and intra-State entities availing long-term and medium-term services of SLDC.”

Hence, the CSERC SLDC Fees and charges Regulations, 2012 explicitly specifies that the other income of SLDC such as registration fee, application fee, etc., should be treated as non-tariff income and should be adjusted in the SLDC Charges payable by intra-State entities.

Hence, the Commission has considered the other income of Rs. 1.38 Crore as non-tariff income for FY 2013-14.

6.4 SUMMARY OF FINAL FINAL TRUE UP FOR FY 2013-14

The summary of final true up for FY 2013-14 approved by the Commission is shown in the Table below:

Table 6.4-1: Summary of final true up approved by the Commission for FY 2013-14**(Rs. Crore)**

Particulars	SLDC Petition	Approved
Annual SLDC Charges	15.32	10.86
Revenue from SLDC Charges	10.98	10.98
Non-Tariff Income	1.38	1.38
Standalone Surplus/(Deficit)	(2.96)	1.50

Hence, the Commission has approved the net surplus of Rs. 1.50 Crore in the final true up for FY 2013-14 as against net deficit of Rs. 2.96 Crore claimed by SLDC.

Further, the Commission has considered the holding cost on the net surplus approved from mid of FY 2013-14 to mid of FY 2015-16. Accordingly, the Commission has approved the net surplus of Rs. 1.92 Crore considering the interest rate of 13.20%.

CSERC SLDC Fee & Charges Regulations 2012 specifies for adjustment of excess recovered fee & charges in the fee and charges for the next year. Regulation 5.4 of the CSERC SLDC Fee & Charges Regulations 2012 is reproduced below;

“5.4 Where after the truing up, the fee & charges recovered if exceeds/falls short of the amount approved by the Commission under these regulations, the excess amount so recovered or short fall to be recovered, as the case may be shall be adjusted while determining the fee and charges for the next year or as decided by the Commission.”

Accordingly the surplus of Rs. 1.92 Crore for the year 2013-14 will be adjusted in the ARR of the year 2015-16. SLDC is directed to calculate the all relevant charges accordingly.

7. FINAL TRUE UP FOR FY 2013-14 AND REVISED ARR AND RETAIL TARIFF FOR FY 2015-16 FOR CSPDCL

7.1 FINAL TRUE UP FOR FY 2013-14

7.1.1 Consumer category-wise energy sales for FY 2013-14

CSPDCL's submission

CSPDCL submitted that during FY 2013-14, it served more than 40 lakh consumers connected at LV level and more than 20,100 consumers connected at HV and EHV level. CSPDCL submitted that it aims at managing the energy procurement and sales in the most efficient manner to balance the objectives of availability and cost to the benefit of the consumers.

CSPDCL submitted that in the MYT order the Commission had approved the sales of 14762 MU for FY 2013-14. As against the same, the actual sales for FY 2013-14 were 14790 MU. CSPDCL requested the Commission to approve the actual consumer category-wise sales in the true up for FY 2013-14.

Commission's Analysis

The Commission has scrutinised the actual consumer category-wise energy sales submitted by CSPDCL for FY 2013-14 with the actual billing data submitted by CSPDCL. The Commission observes that the actual sales of CSPDCL during FY 2013-14 is higher by 29 MU in comparison to that estimated in the MYT order, i.e., 0.2% higher.

Regulation 11.1 of the CSERC MYT Regulations, 2012 identifies the sales mix and quantum of sales as an uncontrollable item. Also, the actual sales for FY 2013-14 are not in much deviation from the projection in the MYT order. Hence, the Commission has approved the actual sales in the final true up for FY 2013-14.

It is also observed that numbers of HV and EHV consumers are around 2100 which is wrongly presented in petition as 20100.

The consumer category-wise sales for FY 2013-14 approved in the MYT order, actual as submitted by CSPDCL and approved by the Commission in true up is shown in the Table below:

Table 7.1-1: Consumer category-wise sales approved in final true up for FY 2013-14
(MU)

Particulars		MYT Order	CSPDCL Petition	Approved
LV-1	Domestic	3882	3867	3867
LV-2	Non-Domestic	764	729	729
LV - 3.1	Agriculture Metered	2308	2234	2234
LV-4	Agriculture Allied	18	15	15
LV-5	LV Industrial	502	516	516
LV-6	Public Utilities	245	266	266
LV-7	Temporary	223	313	313
	Sub Total LV	7942	7940	7940
EHV-1	Railway Traction	875	837	837
EHV-2	Heavy Industries	859	957	957
EHV-3	Steel Industries	179	193	193
EHV-4	Coal Mine, Cement & Other Industries	147	167	167
	Sub Total EHV	2060	2154	2154
HV-1	Steel Industries	2834	2759	2759
HV-2	Coal Mines & Cement	385	374	374
HV-3	Other HT Industries	656	681	681
HV-4	Low Load Factor	85	105	105
HV-5	Residential Purpose	212	205	205
HV-6	General Purpose	472	464	464
HV-7	Public Water Works & Irrigation	60	59	59
HV-8	Start Up Power	37	29	29
HV-9	Agriculture Allied	19	18	18
HV-10	Industries manufacturing equipments for renewable energy generation	0	1	1
	Sub Total HV	4760	4695	4695
	Total	14762	14790	14790

7.1.2 Energy loss below 33 kV

CSPDCL's submission

CSPDCL submitted that the distribution losses have been calculated in accordance with CSERC MYT Regulations, 2012, as under:

“The energy loss for 33 kV and below voltage level, shall be calculated taking into consideration the clause 4.2.5 and 8.4.3 of the State Grid Code 2011. The difference between the energy injected at 33 kV voltage level and the sum of energy sold to all consumers (retail and open access), at voltage level 33 kV and below shall be the energy loss for the 33 kV and below system. The same shall be considered for gain/loss at the time of true up.”

Energy balance for FY 2013-14 as submitted by CSPDCL is shown in the Table below:

Table 7.1-2: Energy Balance for FY 2013-14 as submitted by CSPDCL

Particulars	Legend	MYT Order	Actual
Energy Requirement			
LV Sales	A	7941	7940
HV Sales	B	4758	4695
Sub-total	C=A+B	12699	12636
Distribution Loss below 33 kV (in %)	D	28.00%	27.38%
Distribution Loss below 33 kV (in MU)	E	4939	4763
Gross Energy requirement at 33 kV level	F=C+E	17638	17399
Less: Direct Input to distribution at 33 kV level	G	400	179
Net Energy Input required at Distribution Periphery at 33 kV level	H=F-G	17238	17220
Sales to EHV consumers	I	2061	2154
Input at Transmission periphery	J=H+I	19299	19374
Distribution loss including EHV Sales	K	25.07%	24.36%

CSPDCL submitted that the actual energy loss for FY 2013-14 is lower than that approved by in the MYT order and hence in accordance with Regulation 13 of the CSERC MYT Regulations, 2012. the licensee is eligible for part of financial gain derived from achieving higher loss reduction in comparison to the target level approved by the Commission CSPDCL claimed an incentive of Rs. 18.08 Crore on account of the actual energy loss being lower than the target level approved by the Commission, as shown in the Table given below:

Table 7.1-3: Incentive for Distribution Loss for FY 2013-14 as submitted by CSPDCL

Particulars	Units	Legend	CSPDCL Petition
Energy recorded at 33 kV outgoing feeder of all EHV S/s	MU	A	17220
Add: Net energy injected by generators connected at 33/11 kV S/s	MU	B	179
Energy input at distribution periphery below EHV level	MU	$C=A+B$	17399
Add: EHV Sales	MU	D	2154
Energy input considered for distribution business	MU	$E=C+D$	19553
Energy sales to LV	MU	F	7940
Energy sales to HV	MU	G	4695
Energy sales to EHV	MU	H	2154
Total Sales	MU	$I=F+G+H$	14790
Distribution losses below 33 kV level	MU	$J=C-(F+G)$	4763
Distribution losses below 33 kV level	%	$K=J/C*100$	27.38%
Target Loss level	%	L	28.00%
Overachievement	%	$M=L-K$	0.62%
Total Power Purchase Cost	Rs. Crore	O	5812.07
Average power purchase cost at distribution periphery (including EHV)	Rs./kWh	$P=O/E*10$	2.97
Overachievement amount	Rs. Crore	$Q=P*M*E/10$	36.16
CSPDCL's entitlement	Rs. Crore	$R=50\% \text{ of } Q$	18.08

Commission's Analysis

In order dated June 12, 2014 of approval of final true up for FY 2012-13 for CSPDCL, it was observed as under:

“6.3.3 Distribution Loss

....

The distribution losses worked out by CSPDCL raises question when CSPDCL itself has reported that about 6% LV consumer meters are defective. As mandated in the Supply Code, 2011, the defective meters should not be more than 2.5%. Similarly a large number of 11 kV and 33 kV feeder meters are also lying defective which are meant for energy accounting. In absence of proper energy accounting data, sharing of

gains and losses is not permitted. Various stake holders have also expressed their concern on distribution losses.

In such scenario, allowing incentive to CSPDCL is not justified and directs CSPDCL to make extra efforts to minimise defective meters within the permissible limit as per the provision of Supply Code, 2011.....”

The Commission, vide suo-motu petition no. 19/2011, had taken cognizance of news reports containing complaints on irregular, improper or wrong meter reading and passed an order dated 20.11.2013. Relevant portion of the order is as under:

“12. After going through the submission made by the respondent vide their letter No. 4799 dated 30.09.2013, it appears that the respondent are serious in ensuring proper meter reading and billing and are making their sincere efforts for their implementation. Therefore, we have reached to the conclusion that as all possible corrective measures are taken by the respondent, therefore, we hereby close the petition with direction to the respondent that action taken report and compliance of instructions and assurance given by the respondent in their previous submissions be completed and quarterly report be submitted to the Commission for its perusal.”

While going through the reports submitted by petitioner, it has been observed that for the year FY 2013-14, the numbers of stopped/defective meters of retail consumers are 5.24% whereas as per Supply Code 2011, the defective meters should not be more than 2.5%. In absence of such meter readings, accurate energy losses cannot be ascertained. For truing up of FY 2011-12 and FY 2012-13, sharing of gains was not allowed due to the reasons stated above. For truing up of FY 2013-14 also as no new material information has been submitted by CSPDCL, the decision of disallowing sharing of gains shall continue. Also, taking cognizance of newspaper reports of dated 20.04.2015 regarding a large number of defective meters/disappearance of meters, Commission had asked CSPDCL to submit a report on the issue vide Letter No. 621 dated 31.03.2015. The report is still awaited.

Further, CSPDCL has preferred an appeal before the Hon'ble APTEL on the Commission's Order dated June 12, 2014, in which it has raised this issue of disallowance of sharing of gains, and the matter is sub-judice, Therefore, in line with the earlier approach, the Commission has not approved any incentive on account of overachievement of the energy loss as stated by CSPDCL. Further, the outcome of the pending appeal on this issue filed by CSPDCL on the tariff order dated June 12, 2014, shall also be applicable for truing up for FY 2013-14. Hence, based on information

submitted by CSPDCL, the actual energy loss as reported by CSPDCL for FY 2013-14 has been considered at this stage.

7.1.3 Power Purchase Cost for FY 2013-14

CSPDCL's submission

CSPDCL submitted that in FY 2013-14 power has been procured from Central generating stations, CSPGCL's generating stations, captive power plants, renewable energy sources, CSPTCL and other short-term sources. The actual power purchase cost for FY 2013-14 is Rs. 5812.07 Crore as against the approved power purchase cost of Rs. 5240.55 Crore approved in the MYT order.

Commission's Analysis

CSPDCL was asked to submit the details power purchase cost for FY 2013-14 in comparison to that estimated in the MYT order.

CSPDCL submitted the comparison of source-wise power purchase quantum and power purchase cost approved in the MYT order and actual for FY 2013-14. The actual energy available from State generating stations was lower than that estimated in the MYT order by 4070 MU as the new generating stations namely Marwa and Korba West did not achieve COD on the anticipated date. The actual average power purchase cost for the Central generating Stations was Rs. 3.08/kWh as against Rs. 2.60/kWh estimated in the MYT order. The inter-State sales have reduced by 4000 MU on account of lower availability of power and the corresponding income has been reduced by Rs. 1300 Crore.

The CSPDCL in its petition has sought approval towards inter-state transmission charges of Rs. 215.24 Crore, intra-state transmission charges as Rs. 531.69 Crore and Rs. 103.21 Crore as other transmission charges. On verification of records and audited accounts of CSPDCL and CSPTCL it emerge that the other transmission charges comprise of transmission charges of Rs. 43.03 Crore paid to CSPTCL and balance amount was paid for using inter-state transmission system. Accordingly while approving the transmission charges the Commission has taken care that the intra-state transmission charges and inter-state transmission charges appear correctly.

In reply to Commission's queries regarding the power purchase cost for FY 2013-14, CSPDCL submitted the following:

- a. Merit order schedule for purchase of power from various sources for each month of FY 2013-14.

- b. Month-wise details of fixed charge and energy charge paid to Central Generating Stations for FY 2013-14.
- c. Month-wise details of quantum of unscheduled interchange (UI) injection/drawal and corresponding UI charges paid/received at inter State level as well as intra-State level for FY 2013-14.
- d. Weekly summary of short-term power purchase and UI Transactions for FY 2013-14 with details of quantum and cost.
- e. Month-wise and source-wise details of quantum and realisation from sale of surplus energy for FY 2013-14.
- f. Month-wise details of power purchase quantum from JSPL and the corresponding power purchase cost.
- g. Sample power purchase bills for the months of April, 2013 and September, 2013.
- h. Copies of PPAs and sample power purchase bills for power procured from biomass and solar power plants for the months of April, 2013 and September, 2013.

The Commission asked CSPDCL to submit the details regarding the delayed payment surcharge paid to Central Generating Stations and CSPGCL in FY 2013-14. CSPDCL submitted that it had paid delayed payment surcharge of Rs. 24.02 Crore to CSPGCL and Rs. 19.98 Crore to CSPTCL in FY 2013-14. CSPDCL submitted that no delayed payment surcharge was paid to Central Generating Stations in FY 2013-14.

After scrutiny of the material placed on record including the audited accounts for FY 2013-14, the Commission has approved the actual source wise power purchase cost for FY 2013-14 except on account of the following heads:

- i. As regards the procurement of power from JSPL, the Commission observed that the CSPDCL has incurred Rs 76.7 Crore for procurement of 330.57 MU power from JSPL in FY 2013-14. Thus, the average rate of power procured from JSPL during FY 2013-14 works out to Rs 2.32/kWh. While carrying out the truing up for FY 2011-12 and FY 2012-13 In order dated June 12, 2014, it was deliberated that JSPL had supplied power which is of non-firm nature. Therefore, base rate of Rs. 1.50/KWh was allowed for power supplied by JSPL. Further, CSPDCL has filed an appeal with Hon'ble APTEL on order dated June 12, 2014 in which it has raised this issue of reduction in power purchase rate for procurement of power from JSPL. As the matter is sub-judice, the Commission has continued with the

approach adopted in the previous order and has approved the power purchase rate of Rs 1.50/kWh for purchase of power from JSPL during FY 2013-14 while carrying out the truing up for FY 2013-14. Further, the outcome of the pending appeal on this issue filed by CSPDCL on the tariff order dated June 12, 2014, shall also be applicable for truing up for FY 2013-14 and subsequent years.

- ii. CSPDCL has paid delayed payment surcharge of Rs. 44 Crore to CSPGCL and CSPTCL (24.02+19.98) and claimed the same as part of power purchase cost, which has not been considered by the Commission as per the provisions of MYT Regulations and in line with the approach adopted by the Commission in its previous Order. Further, the Commission also does not consider the income earned by delayed payment surcharge from consumers as part of Non Tariff Income.

Based on the above, the power purchase quantum and power purchase cost approved by the Commission in the final true up for FY 2013-14 is shown in the Table below:

Table 7.1-4: Power purchase quantum and power purchase cost approved by the Commission in final true up for FY 2013-14

Sl.	Description	MYT Order			Petition			Approved after final true-up		
		Quantum (MU)	Amount (Rs. Crore)	Rate (Rs/kWh)	Quantum (MU)	Amount (Rs. Crore)	Rate (Rs/kWh)	Quantum (MU)	Amount (Rs. Crore)	Rate (Rs/kWh)
A	Purchase from Central Generating Stations									
1	N.T.P.C.	7780.25	1966.41	2.53	6754.03	2044.90	3.03	6754.03	2044.90	3.03
2	N.T.P.C. - SAIL	335.96	140.36	4.18	226.04	115.27	5.10	226.04	115.27	5.10
3	N.P.C. Limited	276.21	77.38	2.80	311.09	89.03	2.86	311.09	89.03	2.86
4	Others	16.64	1.51	0.91	27.36	7.83	2.86	27.36	7.83	2.86
	Sub Total (1+2+3+4)	8409.06	2185.67	2.60	7318.52	2257.04	3.08	7318.52	2257.03	3.08
5	Regional UI				54.11	50.04	9.25			
5a	UI Over-drawal							412.22	93.96	2.28
5b	UI under-drawal							-360.8	-41.72	1.16
	Total Central Generating Station A	8409.06	2185.67	2.60	7372.63	2307.08	3.13	7369.94	2309.27	3.13
B	Purchase from State Generating Stations									
6	CSPGCL	15903.4	3485.34	2.19	11833.22	2586.55	2.19	11833.22	2586.55	2.19
	Less: DPS towards payment to CSPGCL								-24.02	
	Net Power Purchase Cost from CSPGCL	15903.40	3485.34	2.19	11833.22	2586.55	2.19	11833.22	2562.53	2.17
7	Short-term power purchase (CPP/IPP/Trader)	2010.77	603.23	3.00	2733.08	740.55	2.71	2733.08	713.44	2.61

Sl.	Description	MYT Order			Petition			Approved after final true-up		
		Quantum (MU)	Amount (Rs. Crore)	Rate (Rs/ kWh)	Quantum (MU)	Amount (Rs. Crore)	Rate (Rs/ kWh)	Quantum (MU)	Amount (Rs. Crore)	Rate (Rs/ kWh)
	Total State Generating Station B	17914.17	4088.57	2.28	14566.30	3327.10	2.28	14566.30	3275.98	2.25
C	Renewable Sources other than CSPGCL									
8	Biomass	553.51	297.79	5.38	690.57	376.43	5.31	690.57	376.43	5.31
9	Solar	74.15	70.90	9.56	8.29			8.29		
10	Other RE (Hydel)(Private)	158.23	63.45	4.01	10.55			10.55		
11	Procurement of REC Cost		75.91							
	Total Renewable Power Purchase C	785.89	508.05	6.46	709.41	376.43	5.31	709.41	376.43	5.31
D	State UI pool									
	UI over injection							104.58		
	UI under injection							52.46		
12	Net State UI							52.12	-0.21	
13	Other Charges (UI)								-238.71	
14	Less: Rebate on Power Purchase					-15.33			-15.33	
	Total D	0.00	0.00		0.00	-15.33		52.12	-254.25	
	Gross Power Purchase Cost (A+B+C+D)	27109.12	6782.29	2.50	22648.34	5995.28	2.65	22697.77	5705.43	2.51
E	Transmission & Other Charges									
15	Interstate Transmission Charges		265.30			215.24			276.33	
16	Transmission - Other Charges					103.21				
17	Intrastate Transmission Charges		600.08			531.69			573.82	
	Less: DPS towards payment to CSPTCL		-			-			-19.98	
	Net Intrastate Transmission Charges		600.08			531.69			553.84	
18	SLDC		5.06			5.06			5.06	
	Total E		870.44			855.20			835.22	
	Power Purchase inclusive Transmission Cost	27109.12	7652.73	2.82	22648.34	6850.48	3.02	22697.77	6542.65	2.88

7.1.4 Operation and Maintenance (O&M) expenses

CSPDCL's submission

CSPDCL submitted that the O&M expenses comprise of Employee expenses, Repair and Maintenance (R&M) expenses, and Administration and General (A&G) expenses. CSPDCL further submitted that the Pension and Gratuity fund contribution has been considered under the head of O&M expenses. CSPDCL submitted that the actual O&M expenses for FY 2013-14 are Rs. 877.25 Crore as against Rs. 870.71 Crore approved in the MYT Order. CSPDCL requested the Commission to approve the actual O&M expenses in the true up for FY 2013-14.

CSPDCL submitted that the actual employee expenses for FY 2013-14 is Rs. 561.92 Crore as against Rs. 568.48 Crore approved in the MYT order. CSPDCL submitted that the employee expenses are governed by the approved pay scales and associated costs as approved under the applicable governing orders and CSPDCL is bound by the same.

CSPDCL submitted that the actual R&M expenses for FY 2013-14 are Rs. 96.80 Crore as against Rs. 116.58 Crore approved in the MYT Order.

CSPDCL submitted that the actual A&G expenses for FY 2013-14 are Rs. 128.98 Crore as against Rs. 95.93 Crore approved in the MYT Order.

CSPDCL submitted that the actual contribution to Pension and Gratuity fund for FY 2013-14 is Rs. 89.55 Crore as against Rs. 89.71 Crore approved in the MYT Order.

Commission's Analysis

In the MYT order for FY 2013-14, the O&M expenses were approved as Rs. 780.97 Crore. Further, the Commission had approved the contribution to Pension and Gratuity fund as Rs. 89.71 Crore for FY 2013-14 separately.

O&M expenses comprise of employee expenses, R&M expenses and A&G expenses. The Commission has not approved the O&M expenses separately under the heads of employee expenses, R&M expenses and A&G expenses as stated by CSPDCL. Hence, the comparison under separate heads of O&M expenses for FY 2013-14 submitted by CSPDCL has no sanctity.

The actual O&M expenses comprising of employee, R&M and A&G expenses for FY 2013-14 claimed by CSPDCL are Rs. 787.69 Crore as against Rs. 780.97 Crore approved in the MYT Order.

Regulation 57.4 of the CSERC MYT Regulations, 2012 specifies as under:

“57.4 Operation and maintenance expenses

57.4.1 Operation and Maintenance (O&M) expenses for shall include:

I. Employee costs;

II. Administrative and General expenses

III. Repairs and Maintenance

(a) The Operation and Maintenance expenses, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2012-13, shall be derived on the basis of the normalized average of the actual Operation and Maintenance expenses excluding pension fund contribution and impact of pay revision arrears available in the audited/un audited accounts for the previous three (3) years immediately preceding the base year FY 2012-13, subject to prudence check by the Commission.

(b) The normalization shall be done by applying weighted average inflation at the rate of 60% weightage to actual variation in CPI and 40% weightage to actual variation in WPI on year to year basis. The average of normalized net present value for 2009-10, 2010-11 and 2011-12, shall then be used to project base year value for 2012-13. The base year value so arrived shall be escalated by the above inflation rate to estimate the O&M expense (excluding impact of pay revision, if any) for each year of the control period.

(c) At the time of true up, the O&M cost shall be considered after taking into account the actual inflation instead of projected inflation for that period....”

The Commission in its order dated June 12, 2014 has approved the normative O&M expenses of Rs. 720.54 Crore while carrying out the true up for FY 2012-13. The Commission has arrived at the normative O&M expenses for FY 2013-14 by escalating the trued up expenses for FY 2012-13 with the escalation rate of 8.25% computed in accordance with CSERC MYT Regulations, 2012. Thus, the normative O&M expenses for FY 2013-14 work out to Rs. 779.98 Crore.

The Commission has scrutinised the O&M expenses from the audited accounts for FY 2013-14. The Commission observed that there are minor differences in the actual O&M expenses as claimed by CSPDCL and as reported in the audited accounts. The Commission has considered the actual O&M expenses as reported in the audited accounts for FY 2013-14, as shown in the Table below:

Table 7.1-5: Actual O&M expenses approved by the Commission in final true up for FY 2013-14

(Rs. Crore)

Particulars	CSPDCL Petition	Approved
Gross Employee Expense	612.65	612.49
Gross R&M Expense	97.33	97.33
Gross A&G Expense	134.07	134.07
O&M Expense	844.05	843.89
Less: Capitalisation		
Employee Cost capitalised	50.73	50.73
R&M Expenses capitalised	0.53	0.53
A&G Expenses capitalised	5.10	5.10
Pension and Gratuity Contribution	89.55	89.71
Net O&M Expenses	877.25	877.25
Net O&M Expenses (excl Pension)	787.69	787.54

Hence, the actual O&M expenses for FY 2013-14 are Rs. 787.54 Crore as against the normative O&M expenses of Rs. 779.98 Crore, resulting in an efficiency loss of Rs. 7.56 Crore.

Further, as the O&M expenses are a controllable factor, the Commission has carried out the sharing of loss in O&M expenses in accordance with CSERC MYT Regulations, 2012, as shown in the Table below:

Table 7.1-6: Sharing of loss in O&M expenses for FY 2013-14

(Rs. Crore)

Particulars	Normative O&M	Actual O&M	Efficiency Gain/(Loss)	Entitlement of Gain/(Loss)	
				CSPDCL	Consumers
O&M expenses	779.98	787.54	(7.56)		
Total			(7.56)	(3.78)	(3.78)

Hence, the net allowable O&M expenses for FY 2013-14, after sharing of loss, works out as Rs. 783.76 Crore.

As regards the contribution to Pension and Gratuity fund for FY 2013-14, the Commission observes that the amount is reported as Rs. 89.71 Crore in the audited accounts, as against CSPDCL's claim of Rs. 89.55 Crore. The Commission has allowed the actual contribution to Pension and Gratuity fund of Rs. 89.71 Crore in the truing up for FY 2013-14 and directed petitioner to pay difference amount of Rs.0.16 Crore immediately.

7.1.5 GFA for FY 2013-14

CSPDCL's submission

The details of capital expenditure and capitalisation for FY 2013-14, as submitted by CSPDCL, are shown in the Table below:

Table 7.1-7: GFA for FY 2013-14 as submitted by CSPDCL
(Rs. Crore)

Particulars	CSPDCL Petition
CWIP	
Opening CWIP	1203.86
Capital expenditure	1568.30
Capitalisation	1329.19
Closing CWIP	1442.97
Consumer Contributions	
Opening value	548.80
Addition during the year	466.80
Closing value	1015.60
Consumer Contributions in GFA	
Opening value	363.47
Addition during the year	544.43
Closing value	907.91
GFA	
Opening GFA	3058.65
Addition during the year	1329.19
Closing GFA	4387.84

Commission's Analysis

In reply to the Commission's query, CSPDCL submitted the scheme-wise detailed break-up of the capital expenditure undertaken in FY 2013-14.

CSPDCL submitted that the capitalisation approved in the MYT order was for the schemes proposed to be funded by CSPDCL alone. CSPDCL submitted that the Commission had approved the investment of Rs. 1328.40 Crore for FY 2013-14 in the business plan, which is inclusive of the schemes funded by the Central and State Governments, in addition to the schemes funded by CSPDCL. CSPDCL submitted that the actual capitalisation for FY 2013-14 is in line with the investment approved in the business plan.

In reply to the Commission's query, CSPDCL submitted the details of assets created against the grants received. CSPDCL submitted that the cumulative grant of Rs. 606 Crore has been received from GoCG towards cost of capital assets till date and the

amount received in FY 2013-14 is Rs. 196 Crore. The grant received from GoCG is invested in pump energisation, Mukhya Mantri Shahri Vidyutikaran Yojana, and electrification of educational institutions and health centres.

CSPDCL submitted that in FY 2010-11, there was a change in the accounting methodology of grants received. Till FY 2009-10, the funds received against RGGVY scheme were shown under the head GoCG contribution towards cost of capital assets. From FY 2010-11, the amount received on account of RGGVY scheme till FY 2009-10 were shown separately as deduction under the head "Unspent fund under RGGVY scheme" under Notes to the balance sheet. The Revised Schedule VI was applicable from April 1, 2011 and the method of presentation was changed accordingly for compliance to the same.

The Commission has considered the closing GFA approved for FY 2012-13 in the true up for FY 2012-13, as the opening GFA for FY 2013-14. The Commission has considered the actual GFA addition in FY 2013-14 as submitted by CSPDCL. The GFA considered by the Commission in the final true up for FY 2013-14 is shown in the Table below:

Table 7.1-8: GFA approved by the Commission in the final true up for FY 2013-14
(Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved
Opening GFA	2846.84	3058.65	3061.24
Additional Capitalisation during the Year	221.00	1329.19	1329.19
Closing GFA	3067.84	4387.84	4390.43

7.1.6 Means of Finance

CSPDCL's submission

CSPDCL submitted that the funding of total additional capitalisation reduced by the consumer contribution has been considered in the normative debt equity ratio of 70:30. CSPDCL submitted that the additional capitalisation of Rs. 1329.19 Crore in FY 2013-14 has been funded by consumer contribution of Rs. 544.43 Crore, debt of Rs. 549.33 Crore and equity of Rs.235.43 Crore.

Commission's Analysis

The Commission has considered the funding of additional capitalisation for FY 2013-14 as submitted by CSPDCL, as shown in the Table below:

Table 7.1-9: Means of finance for additional capitalisation for FY 2013-14**(Rs. Crore)**

Particulars	CSPDCL Petition	Approved
Addition in GFA	1329.19	1329.19
Sources of Funding:		
Consumer Contribution	544.43	544.43
Equity	235.43	235.43
Debt	549.33	549.33

7.1.7 Depreciation**CSPDCL's submission**

CSPDCL submitted that the depreciation recorded in the accounts of FY 2013-14 has been calculated on straight line method to the extent of 90% of the cost of the asset in accordance with the rates specified in the CSERC MYT Regulations, 2012. The depreciation on addition/deletion of asset has been provided on pro-rata basis from the date of capitalization or up to the date of disposal of the asset. CSPDCL submitted that the depreciation claimed in the true up for FY 2013-14 is as per the audited accounts as the depreciation is computed in line with the CSERC MYT Regulations, 2012.

CSPDCL submitted that the actual amortization of capital grant has been deducted from the depreciation during the year in line with the new accounting policy adopted from FY 2013-14. Accordingly, the depreciation on the assets created from consumer contribution has been deducted from the total depreciation.

CSPDCL claimed the depreciation of Rs. 169.27 Crore for FY 2013-14 as against Rs. 65.77 Crore approved in the MYT order. CSPDCL submitted that the variation in depreciation claimed in the true up for FY 2013-14 and that approved in the MYT order, is on account of non-consideration of fully depreciated assets in its accounts and variation in opening balance of consumer contribution. CSPDCL submitted that it has deviated from the approach adopted by the Commission in approving depreciation, as it had filed an appeal before the Hon'ble ATE regarding the same.

Commission's Analysis

In reply to the Commission's query, CSPDCL submitted the details of consumer contribution, subsidies and grants towards creation of capital assets from FY 2009-10 to FY 2013-14.

In reply to the Commission's query, CSPDCL submitted that it has not received any fully depreciated assets under the Transfer Scheme. It may be pertinent here to quote provisions of Tariff policy. Para 5 (c) reads as under:

“Benefit of reduced tariff after the assets have been fully depreciated should remain available to the consumers”

The Commission has computed the gross depreciation for FY 2013-14 by applying the weighted average depreciation rate of 5.75%. From the gross depreciation computed, the Commission has deducted the depreciation on consumer contribution and depreciation on fully depreciated assets, in accordance with the approach adopted in the previous orders as well as provisions of Tariff policy. The Commission has considered the depreciation on fully depreciated assets at the same level as approved for FY 2012-13, as CSPDCL has not submitted any additional details of fully depreciated assets.

The depreciation for FY 2013-14 approved in the MYT order, as submitted by CSPDCL and approved by the Commission is shown in the Table below:

Table 7.1-10: Depreciation approved by the Commission in final true up for FY 2013-14
(Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved
Opening GFA	2846.84	3058.65	3061.24
Additional Capitalisation during the Year	221.00	1329.19	1329.19
Closing GFA	3067.84	4387.84	4390.43
Average GFA for the year	2957.34	3723.25	3725.84
Depreciation @ rates as per applicable Regulation	163.35	214.12	214.27
Less: Depreciation on Consumer Contribution on live assets	80.62	44.85	86.37
Less: Depreciation on Fully Depreciated Assets	16.96	0.00	17.44
Net Depreciation	65.77	169.27	110.46

7.1.8 Interest on loan capital

CSPDCL's submission

CSPDCL submitted that the interest on loan has been computed in accordance with CSERC MYT Regulations, 2012. The outstanding loan balance for FY 2013-14 has been considered by deducting the opening cumulative repayment from the gross normative

opening loan. The depreciation for the year has been considered as the normative repayment for the year. The weighted average interest rate based on the actual loan portfolio has been considered for computing the interest expenses for FY 2013-14. CSPDCL has claimed the interest and finance charges of Rs. 87.72 Crore in true up for FY 2013-14.

Commission's Analysis

In the MYT order, interest expenses of Rs. 30.09 Crore for FY 2013-14 were approved. As against the same, CSPDCL has claimed Rs. 87.72 Crore in the true up for FY 2013-14. In reply to the Commission's query, CSPDCL submitted that the deviation in the interest expenses as approved in the MYT order and as submitted for final true up is on account of the variation in the opening loan balance. CSPDCL submitted that in the MYT order the opening loan balance was considered as Rs. 221.01 Crore while the actual opening loan balance is Rs. 809.39 Crore.

The Commission asked CSPDCL if the interest on loan for FY 2013-14 has been computed after factoring in the conversion of loan into grant by State Government in FY 2013-14. CSPDCL submitted that the Commission had considered the effect of waiver of all the State Government loans as per the notification of the State Government dated June 7, 2013 and accordingly reduced such loans while approving the interest expenses in the MYT order. CSPDCL submitted that it has not received any communication/notification from GoCG regarding the waiver of Government loans and is currently paying interest on all the loans as per the terms and conditions.

In reply to the Commission's query, CSPDCL submitted the supporting documents for actual interest rate for each source of loan for FY 2013-14. CSPDCL also submitted the computation of actual weighted average interest rate for FY 2013-14.

The Commission has considered the closing loan balance approved for FY 2012-13 in the final true up for FY 2012-13, as the opening loan balance for FY 2013-14. The debt portion of the approved additional capitalisation for FY 2013-14 has been considered as the loan addition during the year. The allowable depreciation for the year has been considered as the normative repayment for the year. The actual weighted average interest rate based on the actual loan portfolio has been considered for computing the interest expenses for FY 2013-14.

The interest expenses approved for FY 2013-14 in the MYT order, as submitted by CSPDCL, and approved by the Commission are shown in the Table below:

Table 7.1-11: Interest expenses approved by the Commission in final true up for FY 2013-14
(Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved
Total Opening Net Loan	221.01	809.39	672.12
Repayment during the period	65.77	169.27	110.46
Increase due to Capitalization during the year	156.73	549.33	549.33
Addition/(Reduction in Normative loan during the year)	(18.10)		
Total Closing Net Loan	293.87	1189.45	1110.99
Average Loan during the year	257.44	999.42	891.56
Wt. Avg. Interest Rate	11.70%	8.78%	8.78%
Interest Expense	30.12	87.72	78.28

7.1.9 Interest on Working Capital (IoWC)

CSPDCL's submission

CSPDCL submitted that the IoWC for FY 2013-14 has been computed in accordance with the CSERC MYT Regulations, 2012. Receivables equivalent to 1 month of actual revenue from sale of power at prevailing tariffs has been considered. The actual O&M expenses inclusive of contribution to Pension and Gratuity fund have been considered. The interest rate of 13.20% has been considered which is the SBI Base rate as on April 1, 2013, plus 350 basis points. CSPDCL submitted that the normative IoWC entitlement for FY 2013-14 in accordance with CSERC MYT Regulations, 2012 is zero.

Commission's Analysis

The Commission has computed the normative IoWC in accordance with the CSERC MYT Regulations, 2012. The Commission has considered the Consumer Security Deposit of Rs. 896.17 Crore, which is the closing balance for FY 2013-14. The working capital requirement for FY 2013-14 in accordance with CSERC MYT Regulations, 2012 works out to Rs. 661.50 Crore. As the Consumer Security Deposit amount is more than the normative working capital requirement, the entitlement of IoWC for FY 2013-14 is zero.

The IoWC approved in the final true up for FY 2013-14 is shown in the Table below:

Table 7.1-12: IoWC approved in final true up for FY 2013-14
(Rs. Crore)

Particulars	CSPDCL Petition	Approved
Operation and Maintenance expenses for one Month	73.10	65.00
Maintenance spares at 15% of O&M Expense	131.59	117.00
Receivable equivalent to one months of the expected revenue from sale of electricity at prevailing tariffs	479.50	479.50
Total working capital requirement	684.19	661.50
Less: Security Deposit	858.29	896.17
Net working capital requirement	0.00	0.00

7.1.10 Interest on Consumer Security Deposit

CSPDCL's submission

CSPDCL submitted that the interest on consumer security deposit (CSD) for FY 2013-14 has been claimed as per the actual, in accordance with CSERC MYT Regulations, 2012.

CSPDCL submitted that duplication in the amount of CSD had been rectified and accordingly the CSD has been considered for FY 2013-14. The revised CSD submitted by CSPDCL for FY 2010-11 to FY 2013-14 is shown in the Table below:

Table 7.1-13: Revised CSD for FY 2010-11 to FY 2013-14 as submitted by CSPDCL
(Rs. Crore)

Particulars	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14
Closing balance as per the audited balance sheet	735.40	986.92	1232.77	896.17
Less: Adjustment entry passed in FY 2013-14	72.01	182.41	330.69	
Less: Opening balance difference in SAP and legacy due to migration			81.68	
Actual closing balance of CSD for the year	663.39	804.51	820.40	896.17

CSPDCL submitted that the change in CSD has no bearing on the interest payout for the previous years.

CSPDCL has claimed the interest on CSD of Rs. 68.62 Crore in the true up for FY 2013-14. CSPDCL requested the Commission to consider the impact of revision in CSD in the ARR for the entire control period.

Commission's Analysis

The Commission asked CSPDCL whether the interest on CSD shown in the audited accounts had actually been paid to the consumers. CSPDCL submitted that the interest on CSD is credited in the bill amount and paid in April/May.

In reply to the Commission's query, CSPDCL submitted that adjustment of rectification/reduction in CSD in FY 2010-11 to FY 2012-13 in order to match the figures as per the accounts with the SAP was incorporated in the books of accounts in FY 2013-14 and the same was audited by the Statutory Auditor.

The Commission has approved the interest on CSD to the extent of Rs. 68.62 Crore in the final true up for FY 2013-14, which is the actual interest on CSD as per the audited accounts.

7.1.11 Return on Equity (RoE)

CSPDCL's submission

CSPDCL submitted that the opening equity for FY 2013-14 has been computed as 30% of the opening GFA less consumer contribution. The equity portion of the additional capitalisation for FY 2013-14 has been considered as equity addition during the year. The RoE has been computed by considering the base rate of 16% on the average equity for the year. CSPDCL has claimed the RoE of Rs.148.21 Crore in the true up for FY 2013-14.

Commission's Analysis

The Commission has considered the closing equity approved for FY 2012-13 approved in final true up for FY 2012-13, as the opening equity for FY 2013-14. The equity portion of the additional capitalisation for FY 2013-14 has been considered as the equity addition for the year. The RoE has been computed considering the base rate of 16% on the average equity for the year.

The RoE approved by the Commission in the final true up for FY 2013-14 is shown in the Table below:

Table 7.1-14: RoE approved by the Commission in final true up for FY 2013-14
(Rs. Crore)

Particulars	CSPDCL Petition	Approved
Permissible Equity in Opening GFA	808.61	848.93
Permissible Equity in Closing GFA	1044.04	1084.36
Average Gross Permissible Equity during the Year	926.33	966.64
Rate of Return on Equity	16.00%	16.00%
Return on Equity	148.21	154.66

7.1.12 Income tax

CSPDCL's submission

CSPDCL has not claimed income tax in the true up for FY 2013-14.

Commission's Analysis

As the actual income tax for FY 2013-14 is zero, the Commission has not considered income tax in the final true up for FY 2013-14.

7.1.13 Prior period income/expenses

CSPDCL's submission

CSPDCL has claimed the prior period expenses of Rs. 134.12 Crore in true up for FY 2013-14.

Commission's Analysis

The Commission has scrutinised the prior period charges for FY 2013-14 claimed by CSPDCL. The Commission observed that CSPDCL has claimed net prior period expenses of Rs. 134.12 Crore (i.e., Rs. 145.68 Crore towards expenses minus Rs. 11.56 Crore towards income). Against this the Commission has approved the legitimate prior period expenses as given in the Table below:

Table 7.1-15: Prior period expenses of FY 2013-14**(Rs. Crore)**

Particulars	CSPDCL Petition	Approved
Income		
Receipt from consumer related to previous year	11.56	11.56
Sub Total Income	11.56	11.56
Expenses		
Power Purchase	144.87	4.75
(i) Amount pertaining to Sep 2011 and came to notice in FY13	0.13	0.13
(ii) Amount pertaining to Oct to Mar 2013, omitted for booking in FY13	3.68	3.68
(iii) Amount pertaining to Mar 2013, omitted for booking in FY13	0.94	0.94
(iv) Delayed Payment Surcharge for 01.04.10 to 31.03.14 provided & prior to 01.04.13 transferred to prior period – CSPGCL	50.42	0.00
(v) Delayed Payment Surcharge for 01.04.10 to 31.03.14 provided & prior to 01.04.13 transferred to prior period – CSPTCL	89.70	
Employee Costs	0.81	0.00
Sub Total Expenses	145.68	4.75
Prior Period (Credits)/Charges	134.12	(6.81)

While carrying out the final true up of FY 2011-12 and FY 2012-13 of the tariff order dated 12th June 2014, certain discrepancies were observed in the power purchase cost incurred by CSPDCL for power purchase from CSPGCL. In FY 2011-12, CSPGCL raised the total bill of Rs. 2200.18 Crore for power supplied by its power stations, which is inclusive of claim of delayed payment surcharge of Rs. 25.04 Crore. However, CSPDCL has considered the amount of power purchase from CSPGCL stations in its books as Rs. 2193.11 Crore, which includes delayed payment surcharge of Rs. 18.14 Crore. The Commission neither allows the delayed payment surcharge paid by CSPDCL as an expense, nor does it consider the delayed payment surcharge billed by CSPGCL as income. During the final truing up of FY 2011-12 in order dated 12.06.2014; the Commission has considered Rs. 2168.07 Crore (2193.11-25.04) as power purchase expenses of CSPDCL for power availed from CSPGCL. It is observed that Rs. 25.04 Crore towards delayed payment surcharge claimed by CSPGCL had been inadvertently disallowed instead of disallowing Rs.18.14 Crore, which is considered by CSPDCL in their books of accounts. It appears that in the tariff order dated 12.06.2014; excess deduction of Rs. 6.89 Crore was made towards the power purchase cost.

For FY 2012-13, CSPGCL raised bills of Rs. 2412.32 Crore, which is inclusive of delayed payment surcharge Rs. 66.75 Crore. CSPDCL in its books of account has

considered the purchase cost for power procured from CSPGCL as Rs. 2413.53 Crore which does not include any delayed payment surcharge claimed by CSPGCL. During true up for FY 2012-13 in the tariff order dated 12th June 2014, the Commission had considered Rs. 2346.67 Crore (2413.42-66.75) and inadvertently disallowed Rs. 66.75 Crore towards delayed payment surcharge, which is claimed by CSPGCL.

Owing to the reason of excess deduction of Rs. 6.89 Crore and Rs. 66.75 Crore, the Commission is allowing this amount in this tariff order along with carrying cost.

By applying the applicable carrying cost of respective years on the amount deducted inadvertently on account of power purchase cost, the prior period expenses towards the power purchase cost corresponds to Rs. 91.79 Crore.

Now, considering the prior period income of Rs. 6.89 Crore and prior period expenses of Rs. 91.79 Crore towards the power purchase cost, the net prior period expenses approved in this order works out as Rs. 84.98 Crore.

7.1.14 Provision for Bad and doubtful debts

CSPDCL's submission

CSPDCL has not claimed any provision for bad and doubtful debts in the true up for FY 2013-14.

Commission's Analysis

The Commission in the MYT Order had approved the provision for bad and doubtful debt for FY 2013-14 as Rs. 62.24 Crore. As CSPDCL has not claimed any provision for bad and doubtful debts in the final true up for FY 2013-14, the Commission has not considered the same.

7.1.15 Non-Tariff Income

CSPDCL's submission

CSPDCL submitted that the Non-Tariff Income for the distribution business may be in the form of interest on fixed deposits, meter rent, miscellaneous charges, open access charges, parallel operation charges, etc. CSPDCL submitted that the Commission in the tariff order for FY 2007-08 had not considered the delayed payment surcharge as Non-Tariff Income by placing reliance on the Judgment of Hon'ble ATE dated October 4, 2007 in Appeal No. 223 of 2006.

CSPDCL submitted that the delayed realization of the receivables adversely impacts its cash flow. The normative working capital considers 60 days of average billing, which is a time delay from consumption to realization of the billed amount in due course. However, delays in payment are not covered in the allowable working capital requirement where the licensee would require funding such additional requirement. In view of the above, CSPDCL submitted that it had excluded the revenue from delayed payment surcharge (DPS) from the non-tariff income. CSPDCL submitted that the same in line with the approach adopted by the Commission in the MYT Order.

CSPDCL further submitted that it had not considered the notional interest on CSD as such provisioning is not available in the audited accounts. CSPDCL has submitted the non-tariff income of Rs. 251.43 Crore in the true up for FY 2013-14.

Commission's Analysis

The Commission asked CSPDCL to submit the details of recurring and non-recurring items in the non-tariff income for FY 2013-14. CSPDCL submitted that most of the items in the non-tariff income are recurring in nature except for some items like delayed payment surcharge and the penalty recovered from various contractors for delay in execution of work. CSPDCL submitted that as there is no separate head for such penalty recovered, the same is accounted under miscellaneous receipts.

The Commission has considered the non-tariff income under various heads as submitted by CSPDCL. Further, as stated earlier, the Consumer Security Deposit available with CSPDCL in FY 2013-14 was Rs. 896.17 Crore, while the working capital requirement for FY 2013-14 was only Rs. 661.50 Crore. As the consumer security deposit amount is more than the normative working capital requirement, in accordance with the philosophy adopted by the Commission in the previous tariff order, the Commission has computed the notional interest on the excess consumer security deposit for FY 2013-14, i.e., difference between Consumer Security Deposit of Rs. 896.17 Crore and Working Capital Requirement of Rs. 661.50, i.e., Rs. 234.68 Crore. The notional interest has been computed @13.20%, i.e., the rate of interest considered for IoWC, which works out to Rs. 30.98 Crore, and has been considered under the Non-Tariff Income for FY 2013-14.

In line with the approach adopted by the Commission in its previous Orders, the Commission has not considered the income from delayed payment surcharge as Non-Tariff Income.

The Non-Tariff Income approved by the Commission in the final true up for FY 2013-14 is shown in the Table below:

**Table 7.1-16: Non-Tariff Income approved by the Commission in the true up for
FY 2013-14**

(Rs. Crore)		
Particulars	CSPDCL Petition	Approved
Income from Investment, Fixed and Call Deposits		
Interest on Fixed Deposits	2.84	2.84
Income from STOA	51.93	51.93
Notional Interest Income on Consumer Security Deposits	0.00	30.98
Sub-Total	54.77	85.75
Other Non-Tariff Income		
Interest on loans and advances to staff	0.41	0.41
Interest on other loans and advances	0.78	0.78
Interest on Advances to Suppliers / Contractors, etc.	8.13	8.13
Net Income from sale of scrap		3.04
Other Receipts from consumers		76.33
Parallel operation connected with distribution system	64.12	64.12
RkVAh Charges	4.17	4.17
Standby feeder maintenance charges	0.45	0.00
Income from Misc. charges from Consumer (As detailed in R9)	52.67	18.84
Miscellaneous receipts	65.92	20.83
Sub-Total	196.65	196.66
Total	251.43	282.41

7.1.16 Aggregate Revenue Requirement (ARR)

Based on the above, the ARR approved by the Commission in the final true up for FY 2013-14 is shown in the Table below:

Table 7.1-17: ARR approved by the Commission in final true up for FY 2013-14
(Rs. Crore)

Particulars	MYT Order	CSPDCL Petition	Approved
Power Purchase Cost	4431.76	5995.28	5705.43
Transmission Charges			
(i) Inter-State Transmission Charges	265.3	318.45	276.328
(ii) Intra-State Transmission Charges	600.08	531.69	573.82
(iii) Other transmission charges		103.21	0
Less: DPS Charged by CSPTCL			-19.98
SLDC charges	13.4	5.06	5.06
O&M Expenses	780.97	787.54	783.76
Pension and Gratuity	89.71	89.55	89.71
Interest and Finance Charges	30.12	87.72	78.28
Interest on Security Deposit	100.6	68.62	68.62
Interest on Working Capital		0	0
Depreciation	65.77	169.27	110.46
Income Tax	0	0	0
Provision for Bad Debts/Other Debts	62.24	0	0
Other Debts/ Prior Period Expenses		134.12	84.98
Total Expenses	6439.96	8187.46	7756.46
Return on Equity	141.71	148.21	154.66
Total Non Tariff Income	357.36	251.43	282.41
Non Tariff Income	223.65	199.5	199.5
Notional Income on Consumer Security Deposit	63.71	0	30.98
STOA Charges	70	51.93	51.93
Share in Gain/(Loss)		18.08	0
Annual Revenue Requirement	6224.31	8102.32	7628.71

(*) This power purchase expenses includes total amount paid against FCA i.e. Rs. 82.24 Crore to CSPGCL and Rs. 318.60 Crore to Central generating stations.

7.1.17 Revenue Gap/Surplus

CSPDCL's submission

CSPDCL submitted the total revenue for FY 2013-14 as Rs. 6792.40 Crore, which is inclusive of revenue of Rs. 5753.99 Crore from sale of power and revenue of Rs. 1038.41 Crore from sale of surplus power.

CSPDCL submitted that the revenue gap for FY 2013-14 based on the projected ARR and revenue from sale of power for FY 2013-14 is Rs. 1404.56 Crore.

Commission's Analysis

CSPDCL was asked to give the details of Rs. 1038.41 Crore. The CSPDCL could not clarify the details of the segregation. From the information given by CSPDCL, it appears that the revenue of inter-state trading and probably income of UI from regional pool was submitted collectively. The Commission has considered the revenue for FY 2013-14 as Rs. 6553.68 Crore as per the audited accounts in the final true up for FY 2013-14. The difference in the revenue submitted by CSPDCL and approved is on account of revenue from surplus power. The difference amount of Rs. 238.71 Crore of the revenue submitted by CSPDCL and approved is considered in the power purchase cost of CSPDCL.

Table 7.1-18: ARR approved by the Commission in final true up for FY 2013-14

Particulars	FY 2013-14				
	Petition		Approved after final true up		
	Quantum (MU)	Revenue (Rs. Crore)	Quantum (MU)	Revenue (Rs. Crore)	Per Unit Cost (Rs. /kWh)
Revenue from sale of power	14790	5,753.99	14,790.00	5,753.99	3.89
Revenue from sale of surplus power		1,038.41	2,310.33	799.69	3.46
Total Revenue		6,792.40		6,553.68	

The Commission, in the MYT Order, had approved the net surplus of Rs. 954.87 Crore for CSPGCL and CSPTCL for the previous years, and the same had been considered for adjusting the ARR of CSPDCL for FY 2013-14. Also, the Commission had approved the revenue gap of Rs. 488.64 Crore for CSPDCL for the previous years, and had considered the same while approving the ARR for FY 2013-14. The Commission observed that CSPDCL has not considered the said amounts in its computation of revenue gap for FY 2013-14. In reply to the Commission's query, CSPDCL submitted that the said amounts have not been considered in its computation of revenue gap for FY 2013-14 as it had filed an Appeal before the Hon'ble ATE on the MYT order.

The Commission notes that Hon'ble ATE is yet to issue its Judgment on the above Appeal, and there is also no stay on the Commission's order, and hence, the said surplus/deficit amounts of the previous years, considered while approving the ARR of CSPDCL for FY 2013-14, need to be considered at this stage.

The summary of Revenue Gap/Surplus approved by the Commission after true up for CSPDCL for FY 2013-14, is shown in the Table below:

Table 7.1-19: Summary of Revenue Gap/Surplus approved by the Commission after final true up for FY 2013-14

(Rs. Crore)

Particulars	CSPDCL Petition	Approved
Annual Revenue Requirement	8102.32	7628.71
Revenue	6792.40	6,553.68**
Revenue Gap / (Surplus) during the year	1309.92	1075.02
Adjustment of Surplus of CSPGCL and CSPTCL		(954.87)
Net Gap during the year	1309.92	120.15
Previous year Gap/(Surplus) of CSPDCL carried forward		488.64
Gross Revenue Gap	1309.92	608.79
Carrying Cost Rate (%)	14.45%	13.20%
Total carrying cost		125.84
Total Revenue Gap till FY 2015-16	1404.56	734.64

(**) This amount includes Rs. 258.58 Crore revenue realized from retail consumers against VCA charges.

The Commission has approved the net revenue deficit of Rs. 734.64 Crore which is inclusive of carrying cost of Rs. 125.84 Crore. Carrying cost has been derived by considering the interest rate of 13.20% (i.e., interest rate for computing the normative IoWC) on the revenue deficit of Rs. 608.79 Crore.

7.2 SCOPE FOR REVISION OF ARR FOR FY 2015-16

As per Regulation 5.7 (b) (ii) of the CSERC MYT Regulations, 2012, CSPDCL was required to submit the following for FY 2015-16:

- "...2. Revised power purchase quantum/cost (if any), with details thereof, for the ensuing year.
3. Revenue from existing tariffs and charges and projected revenue for the ensuing year.
4. Application for re-determination of ARR for the ensuing year along-with retail tariff proposal."

Accordingly, CSPDCL submitted the petition for FY 2015-16 with revised projection of sales, power purchase and ARR, as discussed in the following paragraphs.

7.3 REVISED ARR FOR FY 2015-16

7.3.1 Consumer Category-wise Sales for FY 2015-16

CSPDCL's submission

CSPDCL submitted that various factors that can have impact on the actual consumption of electricity are often beyond the control of the licensee, such as Government policy, economic climate, weather conditions, change in consumption mix, etc. CSPDCL submitted that an attempt has been made to take into consideration various factors affecting electricity consumption and estimate the inter-relationships among them to arrive at a reasonably accurate forecast of energy sales for the purpose of estimating future costs/revenues. CSPDCL submitted that CSERC MYT Regulations, 2012 also specify the sales mix and quantum of sales as uncontrollable factors.

CSPDCL submitted the consumer category-wise sales for FY 2015-16 has been projected based on trend analysis of the sales, no. of consumers and connected load for each consumer category for the past 5 years from FY 2009-10 to FY 2013-14. The projection of sales, no. of consumers and connected load for sub-categories/slabs of respective consumer categories has been made considering the proportion of respective sub-categories/slabs in the actual consumer category-wise sales for FY 2013-14. CSPDCL submitted the data of actual no. of consumers, connected load, contract demand and sales for each category under LV, HV and EHV. CSPDCL also submitted the Compounded Annual Growth Rates (CAGR) for 5 years, 4 years, 3 years and year on year growth rate from FY 2012-13 to FY 2013-14. CSPDCL submitted that consumer category-wise sales for FY 2015-16 have been projected by considering the growth rate on the actual sales for FY 2013-14.

CSPDCL submitted that the no. of consumers for FY 2015-16 has been projected applying the following growth rates on the actual no. of consumers for FY 2013-14:

Table 7.3-1: Growth rates considered by CSPDCL for projecting no. of consumers for FY 2015-16

Consumer Category		Growth Rate considered	Remarks
A	LV		
1	BPL	Actual targeted addition considered	-
2	Domestic excluding BPL	7.16%	5 years CAGR
3	Non Domestic (Normal Tariff)	6.50%	5 years CAGR
4	Non Domestic (Demand Based Tariff)	6.61%	4 years CAGR

Consumer Category		Growth Rate considered	Remarks
5	Agriculture – Metered	Actual targeted addition considered*	-
6	Agriculture – Allied Activities	17.99%*	4 year CAGR
7	LT Industry	8.23%	4 years CAGR
8	Public Utilities	14.10%	5 years CAGR
9	Temporary	10.00%	Nominal increase projected
B	EHV		
1	Railway Traction	0.00%	Actual declining trend
2	Heavy Industries		
3	Steel Industries		
4	Other EHV Consumers		
C	HV		
1	Steel Industries	0.00%	Actual declining trend
2	Mines and Cement Industries	32.64%	5 years CAGR
3	Other HT Industries	9.58%	5 years CAGR
4	Low Load Factor Industries	8.49%	5 years CAGR
5	Residential Purpose	1.26%	5 years CAGR
6	General Purpose Non Industrial	15.18%	5 years CAGR
7	PWW and Irrigation	11.96%	5 years CAGR
8	Start-up power Tariff	0.00%	Actual declining trend
9	Agriculture Allied services	23.08%	Year on Year growth rate from FY 2012-13 to FY 2013-14
10	Industries related to renewable power tariff	10.00%	Nominal increase projected

*Additional submission dated March 5, 2015

CSPDCL submitted that the connected load/contracted demand for FY 2015-16 has been projected by applying the following growth rates on the actual connected load/contracted demand for FY 2013-14:

Table 7.3-2: Growth rates considered by CSPDCL for projecting connected load/contracted demand for FY 2015-16

Consumer Category		Growth Rate considered	Remarks
A	LV		
1	BPL	12.88%	5 years CAGR
2	Domestic excluding BPL	12.88%	5 years CAGR
3	Non Domestic (Normal Tariff)	23.48%	5 years CAGR
4	Non Domestic (Demand Based Tariff)	25.50%	4 years CAGR

Consumer Category		Growth Rate considered	Remarks
5	Agriculture – Metered	9.97%	5 years CAGR
6	Agriculture – Allied Activities	13.17%	4 years CAGR
7	LT Industry	7.64%	4 years CAGR
8	Public Utilities	11.64%	5 years CAGR
9	Temporary	10.00%	Nominal increase considered
B	EHV		
1	Railway Traction	3.31%	5 years CAGR
2	Heavy Industries	4.90%	3 years CAGR
3	Steel Industries	5.00%	-
4	Other EHV Consumers	0.00%	Actual declining trend
C	HV		
1	Steel Industries	5.00%	Nominal increase considered
2	Mines and Cement Industries	11.10%	5 years CAGR
3	Other HT Industries	10.22%	3 years CAGR
4	Low Load Factor Industries	12.36%	5 years CAGR
5	Residential Purpose	3.00%	Nominal increase considered
6	General Purpose Non Industrial	14.28%	3 years CAGR
7	PWW and Irrigation	15.65%	5 years CAGR
8	Start-up power Tariff	0.00%	Actual declining trend
9	Agriculture Allied services	5.07%	Year on Year increase from FY 2012-13 to FY 2013-14
10	Industries related to renewable power tariff	10.00%	Nominal increase considered

CSPDCL submitted that the consumer category-wise sales for FY 2015-16 have been projected by applying the following growth rates on the actual consumer category-wise sales for FY 2013-14:

Table 7.3-3: Growth rates considered by CSPDCL for projecting consumer category-wise sales for FY 2015-16

Consumer Category		Growth Rate considered	Remarks
A	LV		
1	BPL	Increase considered corresponding to incremental number of consumers	-
2	Domestic excluding BPL	10.79%	5 years CAGR

Consumer Category		Growth Rate considered	Remarks
3	Non Domestic (Normal Tariff)	13.30%	5 years CAGR
4	Non Domestic (Demand Based Tariff)	11.15%	4 years CAGR
5	Agriculture – Metered	7.32%	5 years CAGR
6	Agriculture – Allied Activities	12.60%	4 years CAGR
7	LT Industry	5.44%	4 years CAGR
8	Public Utilities	16.53%	5 years CAGR
9	Temporary	10.00%	Nominal increase considered
B	EHV		
1	Railway Traction	4.28%	5 years CAGR
2	Heavy Industries	8.27%	5 years CAGR
3	Steel Industries	5.00%	-
4	Other EHV Consumers	0.00%	Actual declining trend
C	HV		
1	Steel Industries	5.00%	Nominal increase considered
2	Mines and Cement Industries	8.36%	3 years CAGR
3	Other HT Industries	10.94%	3 years CAGR
4	Low Load Factor Industries	6.88%	5 years CAGR
5	Residential Purpose	3.00%	Nominal increase considered
6	General Purpose Non Industrial	16.02%	3 years CAGR
7	PWW and Irrigation	9.42%	5 years CAGR
8	Start-up power Tariff	5.93%	5 years CAGR
9	Agriculture Allied services	7.62%	Year on Year increase from FY 2012-13 to FY 2013-14
10	Industries related to renewable power tariff	10.00%	Nominal increase considered

Based on the above, the actual category-wise no. of consumers, connected load and sales for FY 2013-14 and that projected for FY 2015-16 is shown in the Table below:

Table 7.3-4: No. of consumers, connected load and sales for FY 2015-16 as submitted by CSPDCL

Consumer Category		No. of consumers		Connected Load(MW)/Contracted Demand (MVA)		Sales (MU)	
		FY 2013-14 (Actual)	FY 2015-16 (Projected)	FY 2013-14 (Actual)	FY 2015-16 (Projected)	FY 2013-14 (Actual)	FY 2015-16 (Projected)
A	LV	4039425	4679124	4221	5416	7940	9606
1	BPL	1536328	1799396	144	183	1029	1155
2	Domestic excluding BPL	1808070	2076375	1635	2084	2838	3591
3	Non Domestic (Normal Tariff)	252433	286328	732	1117	719	923
4	Non Domestic (Demand Based Tariff)	279	316	8	12	10	13

Consumer Category		No. of consumers		Connected Load(MW)/Contracted Demand (MVA)		Sales (MU)	
		FY 2013-14 (Actual)	FY 2015-16 (Projected)	FY 2013-14 (Actual)	FY 2015-16 (Projected)	FY 2013-14 (Actual)	FY 2015-16 (Projected)
5	Agriculture – Metered	322986	372986	852	1030	2234	2573
6	Agriculture – Allied Activities	1779	2477	10	13	15	19
7	LT Industry	30332	34119	534	605	516	592
8	Public Utilities	17334	22568	72	90	266	361
9	Temporary	69884	84559	233	282	313	379
B	EHV	49	49	964	1036	2154	2402
1	Railway Traction	21	21	327	349	837	910
2	Heavy Industries	8	8	461	507	957	1122
3	Steel Industries	12	12	89	94	193	202
4	Other EHV Consumers	8	8	87	87	167	167
C	HV	2121	2634	1583	1815	4695	5262
1	Steel Industries	261	261	727	763	2759	2897
2	Mines and Cement Industries	130	228	129	159	374	440
3	Other HT Industries	816	980	267	324	681	839
4	Low Load Factor Industries	169	199	100	126	105	120
5	Residential Purpose	41	43	46	49	205	217
6	General Purpose Non Industrial	579	768	226	295	464	624
7	PWW and Irrigation	55	69	26	34	59	71
8	Start-up power Tariff	37	37	53	53	29	33
9	Agriculture Allied services	32	48	8	9	18	21
10	Industries related to renewable power tariff	1	1	1	1	1	1
D	Total	4041595	4681807	6767	8267	14790	17270

CSPDCL submitted that the maximum unrestricted demand recorded in the State in FY 2013-14 was 3605 MW as per the Load Generation Balance Report published by CEA. The actual demand from FY 2007-08 to FY 2013-14 submitted by CSPDCL is shown in the Table below:

Table 7.3-5: Peak demand as submitted by CSPDCL

Particulars	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	5 years CAGR
System peak demand met (MW)	2450	3048	3000	2979	3093	3134	3320	1.43%
Unrestricted system peak demand (MW)	2471	3064	3021	3338	3239	3271	3365	1.57%

CSPDCL submitted that the unrestricted system peak demand for FY 2015-16 is projected to be 3462 MW and the restricted peak demand is projected to be 3415.96 MW. CSPDCL requested the Commission to approve the proposed peak demand for FY 2015-16.

Commission's Analysis

In reply to the Commission's query, CSPDCL submitted the actual number of BPL consumers added in FY 2014-15 upto December, 2014. CSPDCL submitted that the number of BPL consumers added in FY 2014-15 upto December, 2014 is 16329.

In reply to the Commission's query, CSPDCL submitted the actual consumer category-wise sales from April 2014 to December, 2014 for the LV category, and the actual category-wise sales from April 2014 to February, 2015 for the EHV and HV categories. The Commission estimated the sales for LV categories and EHV and HV categories for the entire FY 2014-15 considering the 9-month/11-month actual sales data as available, and estimating the sales for the balance period on pro-rata basis. The CAGR for different periods, viz., 4 years, 3 years, 2 years and year-on-year growth rate, has been calculated considering the revised estimate of category-wise sales for FY 2014-15, in order to facilitate more realistic and up-to-date sales projections for FY 2015-16. For most of the categories, the Commission has projected the consumer category-wise sales for FY 2015-16 by applying the 4-year CAGR of sales for the respective consumer category on the estimated sales for FY 2014-15. The assumptions considered by CSPDCL and growth rates considered by the Commission for projecting the sales of each category are discussed below:

7.3.2 Category-wise Sales Forecast-LV Sales

LV-1: Domestic Consumers including BPL consumers

CSPDCL's submission

CSPDCL submitted that as per the provisional accounts, there were 33.44 Lakh consumers including BPL consumers at the end of FY 2013-14. 5-year CAGR for number of consumers and load has been considered except for BPL category wherein targeted addition of 153456 consumers in FY 2014-15 and 10612 consumers in FY 2015-16 has been considered. Consequently, the growth rate selected for estimation of sales is 5-year CAGR for domestic category. However, sales for BPL category have been increased due to the increase in number of BPL consumers at 40 units per month. Based

on the above assumptions, CSPDCL has projected domestic sales at 4746 MU for FY 2015-16 on the basis of 5-year CAGR of 10.79%.

Commission's Analysis

In reply to the query, CSPDCL clarified that the proposed addition of BPL consumers during FY 2015-16 is 1,09,612 consumers instead of 10,612 consumers.

In MYT order dated March 31, 2011, it was decided that tariff of BPL category consumers will be same as the domestic category consumers and BPL card holders may receive subsidy for eligible units as decided by State Government. This approach has been followed since FY 2011-12 onwards,. Hence, the projection of sales for FY 2015-16 for domestic category consumer is inclusive of consumption of BPL category.

The sales to domestic consumers had increased at CAGR of 14.16% over the last four years, 19.31% over the last three years, 22.47% over the last two years, and 18.13% year-on-year based on the estimated sales for FY 2014-15.

The Commission has considered the growth rate of 14.16% for projection of sales for domestic category based on the 4-year CAGR over the estimated sales for FY 2014-15. Therefore, the Commission has estimated sales for domestic category (including BPL) at 5215.20 MU for FY 2015-16.

LV-2: Non-Domestic Consumers

CSPDCL's submission

CSPDCL submitted that the sales to the non-domestic category has recorded 5-year CAGR of 13.30% and the same has been considered for projecting sales for FY 2015-16. Similarly, the load and consumers have also been projected at 5-year CAGR. With CAGR of 13.30%, sales for non-domestic category have been projected as 936 MU for FY 2015-16.

Commission's Analysis

The sales to non-domestic category has recorded CAGR of 10.90% over the last four years, 10.61% over the last three years, 9.34% over the last two years, and year-on-year growth rate of 8.91% based on the estimated sales for FY 2014-15. The Commission is of the view that with the increased commercial activity in the State, the sales to this category are likely to increase at a higher rate. Therefore, the projection of sales for this category

has been done considering the 4-year CAGR of 10.90% over the estimated sales for FY 2014-15. Accordingly sales for non-domestic category is projected as 868.04 MU.

LV-3: Agriculture Consumers

CSPDCL's submission

CSPDCL submitted that the sales to the agriculture category have shown a considerable increase over the past few years, which may be attributed to the metering of agriculture consumers and weather conditions. CSPDCL added that the targeted addition for each year of the control period is 25000 consumers. Accordingly, CSPDCL has projected sales on the basis of 5-year CAGR. Similarly, load has been projected on the basis of 5-year CAGR to match the targeted consumer addition. Accordingly, CSPDCL has projected sales for agriculture consumers at 2573 MU for FY 2015-16 on the basis of 5-year CAGR of 7.32%.

Commission's Analysis

In response to the query, CSPDCL submitted that the addition in number of consumers in the agriculture category is as per the target addition. CSPDCL also submitted the figures of actual consumer addition in agriculture category in FY 2014-15 up to December 2014.

Addition in agriculture consumers and corresponding energy consumption is dependent on number of applications received by CSPDCL and its annual target of release of connection. It is observed that the sales to agriculture category has increased at CAGR of 11.28% over the last four years, CAGR of 5.60% over the last three years, CAGR of 4.32% over the last two years, and year-on-year growth rate of 9.86% on the basis of estimated sales for FY 2014-15. The Commission has considered the growth rate of 11.28% over the estimated sales for FY 2014-15 to project the sales to the agriculture category as 2731.51 MU for FY 2015-16

LV-4: Agriculture Allied Services

CSPDCL's submission

CSPDCL submitted that the consumption of this category has been recorded for last five years; hence, 4-year CAGR has been considered for this category. CSPDCL submitted that it has estimated the number of consumers and load on the basis of 4-year CAGR.

Therefore, CSPDCL has projected sales for this tariff category at 19 MU for FY 2015-16 on the basis of 4-year CAGR of 12.60%.

Commission's Analysis

On the basis of estimated sales for FY 2014-15, it is observed that sales to agriculture allied services increased at CAGR of 10.73% over the last four years, CAGR of 8.81% over the last three years, CAGR of 2.06% over the last two years, and year-on-year growth rate of 5.29%,. The Commission considers the 3-year CAGR of 8.81% as appropriate and has consequently estimated sales for agriculture allied services as 17.46 MU for FY 2015-16 by applying this growth rate over the estimated sales for FY 2014-15.

LV-5: LT Industry

CSPDCL's submission

CSPDCL submitted that the growth rate has been estimated for each sub-category and has been assumed equivalent to 3-5 year CAGR, as smooth trend is observed over the past 3-5 years. CSPDCL has projected sales to LT Industry category as 592 MU for FY 2015-16.

Commission's Analysis

On the basis of estimated sales for FY 2014-15, it has been observed that sales to LT Industry category has increased at a CAGR of 4.34% for the last four years, CAGR of 2.63% over the last 3 years, and CAGR of 3.78% for the last two years, The Commission considers the 4-year CAGR of 4.34% to be more appropriate. Therefore, the Commission has estimated sales to LT Industry for FY 2015-16 as 536.12 MU by applying this growth rate over the estimated sales for FY 2014-15. The share of sales to the sub-categories within LT Industry category has been projected in proportion to the past sales of each sub-category.

LV-6: Public Utilities

CSPDCL's submission

CSPDCL submitted that the Public Utilities category comprising of street lights and public water works has shown a smooth growth trend in the past. Therefore, 5-year CAGR has been considered appropriate for estimating the sales, number of consumers

and load. CSPDCL has projected the sales for LV 6 Public Utilities tariff category as 361 MU for FY 2015-16 on the basis of 5-year CAGR of 16.53%.

Commission's Analysis

Considering the estimated sales for FY 2014-15, it is observed that the sales to LV Public Utilities category has increased by CAGR of 13.91% over the last four years, CAGR of 13.61% over the last 3 years, CAGR of 7.87% for the last two years, and year-on-year growth is 5.04%, The Commission considers 4-year CAGR of 13.91% to be reasonable. Therefore, the Commission has estimated sales for LV 6 Public Utilities category as 317.96 MU for FY 2015-16 by applying this growth rate over the estimated sales for FY 2014-15.

LV-6: Temporary Supply

CSPDCL's submission

CSPDCL submitted that notional growth of 10% has been assumed for LV 7 Temporary Supply. CSPDCL has projected sales as 379 MU for FY 2015-16.

Commission's Analysis

In response to a query, CSPDCL submitted that since historically, growth of temporary connections in on the higher side and as the growth may not be consistent due to the nature of such connection; notional growth of 10% has been assumed.

The past trend in sales for this category shows steep fluctuations and so it is difficult to predict the growth in sales to this category precisely. The Commission is of the view that the projection of 10% growth in sales for temporary category seems reasonable, , and. Accordingly, the Commission has estimated sales of 398.83 MU for FY 2015-16 by applying the growth rate of 10% over the estimated sales for FY 2014-15. The share of sales to the sub-categories within LT Temporary category has been projected considering the past sales of each sub-category proportionally.

7.3.3 Category-wise Sales Forecast-EHV Sales

EHV-1: Railway Traction

CSPDCL's submission

CSPDCL submitted that it has not considered any growth in the number of consumers in EHV 1 Railway Traction category in view of past trends. However, CSPDCL submitted that it has considered 5-year CAGR for projection of sales and connected load for Railway Traction category. CSPDCL has projected sales of 910 MU for FY 2015-16 on the basis of 5-year CAGR of 4.28%.

Commission's Analysis

On the basis of estimated sales for FY 2014-15, it is observed that the sales to Railway Traction category has increased by CAGR of 2.76% over the last four years, CAGR of 3.01% over the last three years and year-on-year growth of 2.96%, while sales have decreased by CAGR of 2.10% over the last two years,.

Considering the above trends, the Commission considers the 4-year CAGR of 2.76% to be appropriate. By applying this growth rate over the estimated sales for FY 2014-15. The sales to Railway Traction category is estimated as 885.97 MU for FY 2015-16

EHV-2: Heavy Industries

CSPDCL's submission

CSPDCL submitted that it has not considered any growth in the number of consumers in EHV 1 Heavy Industries category in view of past trends. However, CSPDCL submitted that it has considered 5-year CAGR for projection of sales and connected load in Heavy Industries category. CSPDCL has projected sales of 1122 MU for FY 2015-16 on the basis of 5-year CAGR of 8.27%.

Commission's Analysis

In previous Tariff Order, EHV-2 and EHV-4 categories were merged. In order to assess the realistic growth rate in sales for this category, the Commission has computed the growth rates for different time periods by adding the sales to these two categories in the previous years. The Commission observes that the sales to Heavy Industries category has increased by CAGR of 15.82% over the last four years, CAGR of 21.37% over the last

three years, CAGR of 29.30% over the last two years, and year-on-year growth of 48.77% which is based on the basis of estimated sales for FY 2014-15. It is observed that sales to this category in the last three years increased at a higher rate. Considering this, the Commission considers 3-year CAGR of 21.37% to be appropriate. Therefore, the Commission estimates the sales to Heavy Industry category as 2029.68 MU for FY 2015-16 by applying this growth rate over the estimated sales for FY 2014-15.

EHV-3: Steel Industries

CSPDCL's submission

CSPDCL submitted that it has considered 5% growth for projection of sales and connected load for EHV 3 Steel Industries category keeping in view the expected optimistic economic conditions and policies. Therefore, CSPDCL has projected sales of 202 MU for EHV 3 Steel Industries category for FY 2015-16.

Commission's Analysis

The estimated sales for FY 2014-15. reveals that the sales to Steel Industries category has increased by CAGR of 4.62 % over the last four years, CAGR of 20.54% over the last three years, CAGR of 17.09% over the last two years and year-on-year growth of 28.35

In view of the higher growth rate in sales to this category in the recent past, 3-year CAGR of 20.54%. appears to be appropriate for projecting the sales to this category for FY 2015-16 of Accordingly, the Commission has projected sales of 298.35 MU for EHV 3 Steel Industries category for FY 2015-16 by applying this growth rate over the estimated sales for FY 2014-15.

7.3.4 Category-wise Sales Forecast-HV Sales

HV-1: Steel Industries

CSPDCL's submission

CSPDCL submitted that it has considered 5% growth for projection of sales and connected load for HV 1 Steel Industries category keeping in view the expected optimistic economic conditions and policies. CSPDCL projected sales of 2897 MU for HV 1 Steel Industries category for FY 2015-16.

Commission's Analysis

Taking into consideration the estimated sales for FY 2014-15, it is observed that the sales to HV 1 Steel Industries category has increased by CAGR of 0.25% over the last three years, CAGR of 3.84% over the last two years, and year-on-year growth of 10.76%. However, it is also observed that sales have decreased by CAGR of 1.16% over the last four years.

In view of the higher growth rate in sales to this category in the recent past, the Commission considers it appropriate to project the sales to this category for FY 2015-16 on the basis of 2-year CAGR of 3.84%. Therefore, the Commission has estimated sales for HV 1 Steel Industries category as 3172.89 MU for FY 2015-16.

HV-2: Mines, Cement, Other Industries and General Purpose Non-Industrial

CSPDCL's submission

CSPDCL submitted that it has considered 3-year CAGR for projection of connected load and sales for this category. CSPDCL added that the number of consumers have been projected on the basis of 5-year CAGR. Therefore, CSPDCL has projected sales of 440 MU for Mines and Cement Industries, 839 MU for Other HT Industries and 624 MU for General Purpose Non-Industrial consumers, amounting to sales of 1903 MU for HV-2 tariff category for FY 2015-16.

Commission's Analysis

The Commission had merged the erstwhile HV-2 (Mines & Cement Industries), HV-3 (Other HT Industries), and HV-6 (General Purpose Non-Industrial) categories in the previous tariff order. The Commission has computed the growth rates for different time periods by adding the sales to these three categories in the previous years, in order to assess the realistic growth rate in sales to this category. The Commission observes that the sales to HV 2 tariff category has increased by CAGR of 12.15 % over the last four years, CAGR of 10.80% over the last three years, CAGR of 9.73% over the last two years, and year-on-year growth of 8.93% on the basis of estimated sales for FY 2014-15.

In view of the above, the Commission considers it appropriate to consider 3-year CAGR of 10.80% for determining sales to HV 2 category. Therefore, the Commission estimates sales to HV 2 category as 1834.23 MU for FY 2015-16.

HV-3: Low Load Factor Industries

CSPDCL's submission

CSPDCL submitted that it has considered 5-year CAGR for projection of sales, connected load and number of consumers for HV 3 Low Load Factor Industries category. CSPDCL has projected sales for HV 3 Low Load Factor Industries category as 120 MU for FY 2015-16 on the basis of 5-year CAGR of 6.88%.

Commission's Analysis

After making an estimation of sales for 2015-16, it emerged that the sales to HV 3 Low Load Factor Industries category has increased by CAGR of 5.79 % over the last four years, CAGR of 8.36% over the last three years, CAGR of 12.97% over the last two years, and year-on-year growth of 1.85%. Considering the past trends, the Commission considers it appropriate to consider 3-year CAGR of 8.36% for determining sales to HV 3 tariff category. In view of this the sales to HV 3 tariff category is estimated as 115.81 MU for FY 2015-16.

HV-4: Residential, Public Water Works, Irrigation and Agriculture Allied Activities

CSPDCL's submission

CSPDCL submitted that it has considered 5-year CAGR for Residential, Public Water Works and Irrigation and year-on-year growth for Agriculture Allied Services for projection of connected load, number of consumers and sales. CSPDCL has projected sales of 217 MU for Residential, 71 MU for Public Water Works and Irrigation and 21 MU for Agriculture Allied Services for FY 2015-16. Therefore, CSPDCL has projected sales as 309 MU for HV 4 category.

Commission's Analysis

The Commission had merged the erstwhile HV-5 (Residential Purpose), HV-7 (PWW and Irrigation), and HV-9 (Agriculture Allied Services) categories in the previous tariff order. In order to assess the realistic growth rate in sales to this category, the Commission has computed the growth rates for different time periods by adding the sales to these three categories in the previous years. Factoring in the estimated sales for FY 2014-15, it is noticed that sales to HV-4 tariff category is in negative growth trend for the last four years. Therefore it appears appropriate to consider zero growth rate for projecting

sales to HV-4 category .Accordingly, sales to HV-4 category is estimated as 274.06 MU for FY 2015-16.

HV-5: Start-up Power

CSPDCL's submission

CSPDCL submitted that it has considered nil growth for projection of connected load and number of consumers for HV 5 Start-up Power category. CSPDCL added that sales have been projected based on notional growth at 5-year CAGR despite negative year-on-year growth in FY 2012-13. CSPDCL has projected sales of 33 MU for FY 2015-16.

Commission's Analysis

It is observed that sales to HV-5 category are in negative trend for the last four years. Therefore, the Commission has not considered growth rate for sales to HV-5 tariff category and has estimated the sales to HV-5 tariff category as 26.58 MU for FY 2015-16.

HV-6: Industries related to manufacturing of equipment for power generation from renewable energy sources

CSPDCL's submission

CSPDCL submitted that in the absence of available data, nominal increase of 10% has been considered for sales, number of consumers and connected load. Therefore, CSPDCL has projected sales as 1 MU for FY 2015-16.

Commission's Analysis

This category was created in previous tariff order and so trend of sales in past is unavailable. The Commission has not considered any growth in sales to HV-6 category for FY 2015-16. Accordingly, sales to HV 6 category are estimated as 0.52 MU for FY 2015-16.

Total Sales for FY 2015-16

In view of above projections of sales of different categories, total sales of 18,735 MU is estimated for FY 2015-16 as against 17,270 MU projected by CSPDCL. The significant

variation between the sales estimated by the Commission and the sales projected by CSPDCL is on account of the fact that the Commission has also factored estimated sales for FY 2014-15, which is based on actual sales for 9 months/11 months of FY 2014-15 as the base, whereas CSPDCL has projected the sales based on actual sales for FY 2013-14. As the actual sales in FY 2014-15 are higher than that projected by CSPDCL in its petition, the sales projected by the Commission for FY 2015-16 are also higher. The consumer category-wise sales projected by the Commission for FY 2015-16 are as shown in the Table given below:

Table 7.3-6: Consumer category-wise sales projected by the Commission for FY 2015-16 (MU)

Consumer Category		Estimated Sales for FY 2015-16
LV		10,097.33
LV 1	Domestic Including BPL Consumers	5,215.20
LV 2.1	Non Domestic (Normal Tariff)	868.04
LV 2.2	Non Domestic (Demand Based Tariff)	12.20
LV 3	Agriculture - Metered	2,731.51
LV 4	Agriculture - Allied Activities	17.46
LV 5	LT Industry	536.12
LV 6	Public Utilities	317.96
LV 7	Temporary	398.83
EHV		3,214.00
EHV 1	Railway Traction	885.97
EHV 2	Heavy Industries	2,029.68
EHV 3	Steel Industries	298.35
HV		5,424.08
HV 1	Steel Industries	3,172.89
HV 2	Mines and Cement Industries, Other HT Industries, and General Purpose Non-Industrial	1,834.23
HV 3	Low Load Factor Industries	115.81
HV 4	Residential Purpose, PWW and Irrigation, and Agriculture Allied Services	274.06
HV 5	Start up power Tariff	26.58
HV 6	Industries related to renewable power tariff	0.52
Total		18,735.40

7.3.5 Energy Balance

CSPDCL's submission

CSPDCL submitted that the CSERC MYT Regulations, 2012 specifies the energy loss trajectory for 33 kV and below and the same had been considered by the Commission in

the MYT order. CSPDCL submitted that the same has been considered in working out the energy balance for FY 2015-16.

CSPDCL submitted that the inter-State transmission loss for FY 2015-16 has been considered as 3.79% which is the average of actual loss level for October, 2013 to September, 2014. CSPDCL submitted that the intra-State transmission loss has been considered as 4.30%. CSPDCL submitted that it had considered the energy injection at 33 kV from hydro stations, biomass and renewable energy based power plants. CSPDCL submitted that it had not considered transmission loss for supply to consumers at 33/11 kV level and had not considered the distribution loss for EHV consumers.

Based on the above, CSPDCL has estimated the energy requirement of 23,648 MU for FY 2015-16.

Commission's Analysis

Energy balance for FY 2015-16 has been computed by considering the projected voltage-wise sales for FY 2015-16, energy approved energy loss level below 33 KV for FY 2015-16, and intra-State Transmission Loss level specified for FY 2015-16. The Commission has considered the inter-State Transmission Loss level of 3.79%, which is the average of the actual loss level for October, 2013 to September, 2014.

Energy balance projected by the Commission for FY 2015-16 is shown in the Table below:

Table 7.3-7: Energy requirement for retail sale as projected by the Commission for FY 2015-16

(MU)			
Particulars	Legend	CSPDCL Petition	Approved
Energy Requirement			
LV Sales	A	9606	10097
HV Sales	B	5262	5424
Total Sales Below EHV Level	C=A+B	14868	15521
Approved Energy Loss below 33 kV (in %)	D	27%	27%
Energy loss below 33 kV (in MU)	E	5499	5741
Energy requirement at Distribution Periphery(33 KV)	F=C+E	20368	21262
Less: Input to distribution at 33/11 kV S/S by CGP's/IPPs	G	450	450
Energy Input requirement at Distribution periphery	H=F-G	19918	20812
Sales to EHV consumers	I	2402	3214
Energy required for retail sale inclusive of EHV sales	J=H+I	22320	24026

Particulars	Legend	CSPDCL Petition	Approved
Approved Transmission loss	K	4.30%	4.20%
Transmission loss	L	1003	1053
Net energy required at transmission periphery	M=J+L	23323	25080
Inter-State Transmission Loss	N	325	296
Gross Energy Required including 33 kV	O=M+N	23648	25376

7.3.6 Power Purchase Cost for FY 2015-16

CSPDCL's submission

CSPDCL submitted that the energy availability for FY 2015-16 has been projected from the following sources:

- i. Chhattisgarh State Power Generation Company Ltd. (CSPGCL)
- ii. Central Generating Stations (CGS)
- iii. Captive Power Plants (CPPs)
- iv. Independent Power Plants (IPPs)
- v. Biomass power plants
- vi. Solar power plants
- vii. Short Term/ UI/ Bilateral purchases etc.

CSPDCL submitted that the entire existing generation capacity of CSPGCL is allocated to it. CSPDCL submitted that the energy availability from the new State Generating Station Marwa TPS has also been considered. The gross energy availability from the existing generating stations has been considered based on the average of actual PLF for FY 2010-11 to FY 2012-13. The ex-bus energy availability has been arrived at after deducting the normative auxiliary consumption for the respective station.

CSPDCL submitted that it also has firm power allocations in CGS like generating stations of NTPC, NPC, NSPCL, etc. The firm allocation and allocation from unallocated quota has been considered as per the latest notification of Western Region Power Committee (WRPC) and Eastern Region Power Committee (ERPC) for the respective stations. The gross energy availability has been considered based on the average of actual PLF for FY 2010-11 to FY 2012-13. The ex-bus energy availability has been arrived at by considering the normative auxiliary consumption for the respective stations as per the CERC Tariff Regulations.

CSPDCL submitted that the RPO obligation would be met through power procurement from biomass, solar and other RE generating stations. The RPO obligation has been considered as 1% for solar, 3.75% for biomass and 2.50% for other RE sources.

CSPDCL submitted that the power purchase cost from generating stations comprises of fixed charges and variable charges. The fixed charges for thermal generating stations have been considered as per the latest Tariff Order. In the absence of Tariff Order for any generating station for FY 2015-16, the fixed charges has been considered as per the latest tariff order for the respective generating station with an annual increase of 5%. Further, the actual Availability of the generating station in the past period has been considered for projecting the net entitlement of fixed charges for the respective generating station. The variable charges for generating stations of CSPGCL have been considered as per the MYT Order approved by the Commission for CSPGCL. The variable charges for CGS have been considered as per the actual average variable charge billed up to August, 2014 in FY 2014-15. The same is escalated by 5% to arrive at the variable charges for FY 2015-16.

For new generating station Korba West TPP (Extn.), average tariff of Rs. 3.14 per kWh has been considered which is as intimated by CSPGCL. For Marwa TPS, average tariff of Rs. 2.71/kWh has been considered, as approved by the Commission.

CSPDCL submitted that it has considered the purchase of 75 MW of concessional power from Arasmeta Captive Power Company Limited at the tariff of Rs. 1.90/kWh. Further, concessional power at the tariff of Rs. 2/kWh has been considered from Jindal Power (27 MW) and power purchase of around 12 MW from ACB (India) Limited and Spectrum Coal and Power Limited has been considered. Further, availability from DB Power and GMR of 5% has also been considered at Rs. 1.90/kWh.

The single part tariff for biomass power plants has been considered as Rs. 5.65/kWh based on the latest power purchase bills. The single part tariff of solar power plants has been considered as Rs. 6.50/kWh based on the PPA's executed for bundled power. The rate for power purchase from other renewable sources has been considered in accordance with Regulation 60 of the CSERC (Terms and Conditions for Tariff determination from Renewable Energy Sources) Regulations, 2012.

CSPDCL submitted that although it has surplus energy from long-term agreements, there could still be shortage in supply to meet the peak demand in case of non-availability of energy from new stations or breakdowns in the existing stations. CSPDCL submitted that such shortfall would be met from short-term purchases. CSPDCL requested the

Commission to allow such contingent short-term purchases and allow the same in the true up. CSPDCL submitted that the surplus energy would be sold at Rs. 3.46/kWh, which is the equivalent to the actual weighted average price for inter-State sale in FY 2013-14.

CSPDCL submitted that the Point of Connection (PoC) rates have been considered as per CERC's Order dated October 14, 2014 for calculation of the inter-State transmission charges for FY 2014-15 and the same have been escalated by annual escalation of 5% to arrive at the inter-State transmission charges for FY 2015-16.

CSPDCL submitted that the intra-State transmission charges and SLDC charges for FY 2015-16 have been considered as per the MYT Order of the Commission.

Based on the above, CSPDCL has projected the net power purchase cost of Rs. 7035.65 Crore for net power purchase quantum of 24073.31 MU for FY 2015-16.

Commission's Analysis

CSPDCL has proposed changes in quantum of power available from various stations along with fixed and variable cost of power purchase. In the MYT order dated July 12, 2013, the Commission had estimated the quantum of power available from various power plants. The Commission has analysed and re-estimated the purchase of power from various sources.

Power Purchase from CSPGCL

The Commission has estimated the quantum of power available from the existing CSPGCL stations, viz., KTPS, DSPM and HTPS at the same level as approved in the MYT order dated July 12, 2013. The energy availability from Korba West TPP (Extn.) has been considered at the normative PLF of 85%. Based on latest available information, two Units of the new station, namely Marwa Unit-1 and Marwa Unit-2 are expected to be commissioned in FY 2015-16 in the month of July 2015 and November 2015, respectively. The energy availability from Marwa TPS has been considered based on the anticipated COD of the respective Units and estimated PLF of 50%.

For KTPS, DSPM and HTPS, fixed charges have been considered as approved in MYT order and in addition, the water charges have been also considered based on actual water charges for FY 2014-15 till December 2014. The variable charges for these stations have been considered at the same level as approved for CSPGCL in the MYT Order dated July 12, 2013. For Korba West TPP (Extn.) and Marwa TPS the fixed and variable charges for these stations have been considered as specified in Chapter 4 of this order.

The summary of the power purchase expenses as submitted by CSPDCL and approved by the Commission for FY 2015-16 for thermal generating stations of CSPGCL is shown in the table below:

Table 7.3-8: Power Purchase from thermal generating stations of CSPGCL

State Power Plants	FY 2015-16			
	CSPDCL		Approved by Commission	
	Power Purchase Quantum (MU)	Power Purchase Cost (Rs. Crore)	Power Purchase Quantum (MU)	Power Purchase Cost (Rs. Crore)
KTPS	2685.31	651.59	2713.00	677.29
DSPM	3387.93	820.49	3387.93	846.64
HTPS	5515.05	1009.40	5853.69	1047.46
Korba West TPP (Extn.)	3350.70	1052.12	3509.21	1032.75
Marwa Unit-1	3153.60	854.63	1641.60	515.95
Marwa Unit-2	2635.20	714.14	1144.80	359.81
Total	20727.79	5102.37	18250.23	4479.90

The variation in the fuel cost for all the thermal power stations of CSPGCL has to be passed on to the beneficiaries through the FCA mechanism specified in order dated 30.06.2012 in suo-motu petition no. 26/2012. It is pertinent to note that the Energy Charges for KTPS, DSPM and HTPS have been specified in MYT order dated July 12, 2013 and the fuel cost adjustment with respect to the fuel price considered in the MYT order dated July 12, 2013 is already being recovered through the FCA mechanism. For Korba West TPP (Extn.) the Energy Charges have been specified provisionally as Rs. 0.825/kWh which is based on the fuel price of Rs.1034.27/MT for coal and Rs. 49431/kl for secondary fuel. The Energy Charges derived due to variation in fuel prices of Korba West TPP (Extn.) have to be passed on through the FCA mechanism. CSPDCL should pay the resultant FCA charges to CSPGCL on account of variation in fuel prices as per the mechanism specified in the order dated 30.06.2012 in suo-motu petition no.26/2012 and its subsequent amendments.

Similarly, for Marwa TPS, the Energy Charges have been specified provisionally as Rs. 1.030/kWh which is based on the fuel price of Rs. 1309.49/MT for coal and Rs. 49431/kl for secondary fuel. The Energy Charges derived due to variation in fuel prices of Marwa TPS have to be passed on through the FCA mechanism.

Power Purchase from Central Sector

The Commission has projected the energy availability from Central Generating Stations based on the generation targets published by the Central Electricity Authority (CEA) for

FY 2015-16. Out of the total energy available, the entitlement of CSPDCL has been considered based on the share of CSPDCL in the respective generating station.

The Commission has considered the Fixed Charges and Energy Charges for Central Generating Stations same as that approved in MYT order.

The summary of the power purchase expenses as submitted by CSPDCL and approved by the Commission for purchase from CGS sources for FY 2015-16 is shown in the Table below:

Table 7.3-9: Power Purchase from Central Sector

Central Power Plants	FY 2015-16			
	CSPDCL		Approved by Commission	
	MU	Rs. Crore	MU	Rs. Crore
Korba STPS (1 to 6)	1476.90	275.16	1404.17	255.56
Sipat STPS Stage II (2*500 MW)	1191.24	362.88	989.00	282.85
Korba STPS (Unit VII)	1077.99	326.55	1024.90	290.05
Vindhyachal Stage 3	836.95	213.44	668.72	155.81
SIPAT STAGE 1 (3*660 MW)	2136.90	746.40	1959.22	544.66
Vindhyachal Stage 4 (2*500 MW)	421.37	98.69	401.23	99.51
NTPC+SAIL	286.98	132.28	364.26	163.55
NTPC MAUDA	398.90	225.35	228.93	122.25
Tarapur (Unit 3 & 4)	286.07	89.52	259.08	80.06
Kakrapar Atomic Station	305.30	95.54	326.47	100.88
Hirakud Hydro	4.87	0.39	16.64	1.66
Kahalgaon Stage II (3*500 MW)	156.26	70.91	178.61	71.62
Total	8579.72	2637.10	7821.84	2168.47

Power Purchase from Renewable Sources and Renewable Purchase Obligation

For renewable sources, CSPDCL's projection appears to be realistic considering power available from such sources in the recent past. In view of the same, CSPDCL's projection for power purchase from other RE, Biomass and Solar is approved by the Commission. For SHP Gangrel, SHP Sikasar, Korba Mini Hydro and Kawardha cogeneration plant, power availability as estimated in the MYT order dated July 12, 2013 for FY 2015-16 has been retained by the Commission for the purpose of this order. The average power purchase rate for Renewable Energy Sources has been considered as approved in the MYT Order dated July 12, 2013.

The summary of the power purchase expenses as submitted by CSPDCL and approved by the Commission for FY 2015-16 for renewable sources is shown in the Table below:

Table 7.3-10: Power Purchase from Renewable Sources

Particulars	FY 2015-16			
	CSPDCL		Approved by Commission	
	MU	Rs. Crore	MU	Rs. Crore
Other RE (Hydro, Wind, etc.)	277.34	84.86	277.34	122.58
Biomass	637.81	378.31	637.81	378.22
Solar	85.39	90.02	85.39	90.00
SHP Gangrel	33.82	15.28	33.82	15.29
SHP Sikasar	23.68	7.87	23.68	7.86
Korba Mini Hydro	5.75	2.21	5.75	2.21
Kawardha cogeneration plant (Biomass)	2.60	1.41	2.60	1.41
Total	1066.39	579.96	1066.39	617.58

In accordance with the provisions in Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2013 (RPO Regulations, 2013) for meeting RPO, the Commission has considered percentage of total energy input at 33 KV level plus EHV sales. The computation of total energy requirement is shown in the Table below:

Table 7.3-11: Computation of total energy requirement for RPO for CSPDCL

Particulars	FY 2015-16
Energy Sales LT (MU)	10097
Energy Sales HT (MU)	5424
Loss Target (%)	27%
Energy Input at 33 kV level (MU)	21262
Energy Sales EHV (MU)	3214
Total Energy Input including EHV Sales (MU)	24476

CSPDCL is obligated to purchase energy from renewable sources in accordance with the CSERC RPO Regulations, 2013. The estimates for renewable power purchase have been made according to CSERC (RPO) Regulations, 2013.

Table 7.3-12: Minimum quantum of electricity to be procured by CSPDCL as percentage of total consumption for meeting RPO for FY 2015-16

Source	Target	Target	CSPDCL
	%	MU	MU
Solar	1.00%	244.76	85.39
Biomass	3.75%	917.86	637.81
Other RE	2.50%	611.90	277.34

It is observed that estimation of CSPDCL for procurement of energy from renewable energy sources works out to lower than the RPO targets specified in CSERC RPO Regulations, 2013 for FY 2015-16.

In view of mandatory obligation, the Commission directs CSPDCL that it should ensure the compliance to the RPO targets by way of its own generation or long-term procurement of power from RE developer or by way of purchase of Renewable Energy Certificate (REC) or by way of combination of any of the above options.

Considering the fact that the estimated procurement of renewable power by CSPDCL is lower than the RPO requirement, the Commission has considered the purchase of solar and non-solar RECs to meet the RPO targets. The Commission has considered the purchase price of RECs at the floor rate determined by the CERC which is also a recent price in the energy exchanges for REC. The summary of the solar and non-solar RECs purchase as estimated by the Commission is shown in the table below:

Table 7.3-13: Purchase of RECs estimated for FY 2014-15

Source	Target (MU)	CSPDCL (MU)	Shortfall (MU)	Purchase Rate of REC (Rs/kWh)	Purchase Cost of REC (Rs. Crore)
Solar	244.76	85.39	159.37	3.50	55.78
Non-solar	1529.76	915.15	614.61	1.50	92.19
Total					147.97

Concessional Power Purchase from IPPs

The Commission has considered the concessional power purchase from IPPs based on the revised submissions of CSPDCL, at a concessional rate of Rs. 1.93 per kWh. The summary of the concessional power purchase expenses as submitted by CSPDCL and approved by the Commission for FY 2015-16 is shown in the Table below

Table 7.3-14: Concessional Power Purchase

Particulars	FY 2015-16			
	CSPDCL		Approved by Commission	
	MU	Rs. Crore	MU	Rs. Crore
Concessional Power Purchase from IPPs	791.90	152.84	494.94	95.52

Power Purchase from short-term sources

CSPDCL has proposed to buy 918 MU from short term sources as against estimate of 39 MU in MYT order dated July 12, 2013 for FY 2015-16. The power purchase rate proposed by CSPDCL is Rs. 3/ kWh. However, it is observed that CSPDCL has already tied-up capacity to meet its load requirement and hence, the Commission has not considered any short-term power purchase for FY 2015-16. Therefore, we have not estimated any short term power purchase quantum in this order.

However, there may be situations of power shortage due to outages of power generating stations, load variations, variation in seasonal demand, etc., which may force the CSPDCL to purchase short term power to meet its requirement during FY 2015-16. CSPDCL may procure the short term power, if required, within the maximum ceiling rates approved by the Commission from time to time. Actual short term power purchase cost, if any, may be considered at the time of true-up.

Treatment of Surplus Energy

Based on energy requirement and power availability estimated in the above Sections, surplus energy available works out as shown in the Table below:

Table 7.3-14: Energy Balance approved by the Commission

Particulars	2015-16		
	MYT Order	Petition	Approved
Gross Energy Required including 33 kV		23,648	25,376
Gross Energy Available at transmission periphery including 33 Kv		31,292	27,608
Surplus Energy	8,126	7,669	2,232

Based on the above estimates, the surplus energy available for short-term sale during FY 2015-16 works out to 2231.76 MU. The Commission has estimated the rate of 3.50/ kWh for short-term sale of 2332 MU for FY 2015-16. This estimated rate is based on trends of price of short term power in the market during FY 2014-15. CSPDCL is directed to ensure

that surplus power available to it in FY 2015-16 shall not be sold below estimated annual average rate i.e. Rs. 3.50/kWh Individual transactions may be at a rate lower or higher than the floor rate of Rs. 3.50/kWh.

Transmission Charges & SLDC Charges

Inter-State Transmission Charges proposed by CSPDCL are based on recent trends. CSPDCL has proposed intra-State Transmission Charges and SLDC charges same as approved in the respective MYT Orders. The Commission has approved the Transmission Charges and SLDC charges as proposed by CSPDCL.

The summary of the Transmission Charges and SLDC charges approved by the Commission for FY 2015-16 is shown in the Table below:

Table 7.3-15: Transmission Charges & SLDC Charges

Particulars	FY 2015-16	
	CSPDCL	Approved
Inter-State Transmission Charges	306.05	306.05
Intra-State Transmission Charges	834.92	834.92
SLDC Charges	14.97	14.97

Based on the above, the Commission has approved the net power purchase cost of Rs. 7938 Crore for net power purchase quantum of 25672 MU, as shown in the Table given below:

Table 7.3-16: Power Purchase Cost approved by the Commission for FY 2015-16

Sr. No	Source	Quantum (MU)	Cost (Rs. Crore)	Average cost (Rs/kWh)
	CENTRAL GENERATING STATIONS	7821.24	2168.47	2.77
	WESTERN REGION			
	THERMAL			
1	Korba STPS			
	KSTPS Unit 1	133.73	24.34	1.82
	KSTPS Unit 2	133.73	24.34	1.82
	KSTPS Unit 3	133.73	24.34	1.82
	KSTPS Unit 4	334.33	60.85	1.82
	KSTPS Unit 5	334.33	60.85	1.82
	KSTPS Unit 6	334.33	60.85	1.82
2	Sipat STPS Stage II (2*500 MW)	989.00	282.85	2.86
3	Korba STPS (Unit VII)	1024.90	290.05	2.83

Sr. No	Source	Quantum (MU)	Cost (Rs. Crore)	Average cost (Rs/kWh)
4	Vindhyachal Stage 3	668.72	155.81	2.33
5	SIPAT STAGE 1 (3*660 MW)	1959.22	544.66	2.78
6	Vindhyachal Stage 4 (2*500 MW)	401.23	99.51	2.48
7	NTPC+SAIL	364.26	163.55	4.49
8	NTPC MAUDA	228.93	122.25	5.34
	NUCLEAR			
9	Tarapur (Unit 3 & 4)	259.08	80.06	3.09
10	Kakrapar Atomic Station	326.47	100.88	3.09
	HYDRO			
11	Hirakud	16.64	1.66	1.00
	EASTERN REGION			
12	Kahalgaon Stage II (3*500 MW)	178.61	71.62	4.01
	STATE GENERATING STATIONS	18587.34	4560.38	2.45
	THERMAL (EXISTING)			
1	Korba thermal power station	2713.00	677.29	2.50
2	Dr Shyama Prasad Mukherjee thermal power station	3387.93	846.64	2.50
3	Hasdeo thermal power station	5853.69	1047.46	1.79
	HYDRO			
4	HPS Bango	271.26	53.71	1.98
5	SHP Gangrel	33.82	15.29	4.52
6	SHP Sikasar	23.68	7.86	3.32
7	Korba Mini Hydro	5.75	2.21	3.85
	COGENERATION PLANT			
8	Kawardha Co-generation plant (Biomass)	2.60	1.41	5.42
	NEW STATE GENERATING STATIONS			
9	Korba West TPP (Extn.)	3509.21	1032.75	2.94
10	Marwa Unit 1	1641.60	515.95	3.14
11	Marwa Unit 2	1144.80	359.81	3.14
	RENEWABLE SOURCES	1000.54	738.78	7.38
	Other RE (Hydel, wind etc)	277.34	122.58	4.42
	Biomass	637.81	378.22	5.93
	Solar	85.39	90.00	10.54

Sr. No	Source	Quantum (MU)	Cost (Rs. Crore)	Average cost (Rs/kWh)
	Cost of REC procurement		147.97	
	CONSESSIONAL POWER PURCHASE	494.94	95.52	1.93
	SHORT TERM PURCHASES	0.00	0.00	0.00
	SHORT TERM SOURCES			
	IEX/PXIL	(2,231.76)	(781.12)	3.50
	Grand Total	25672.30	6782.03	2.64
	OTHER CHARGES			
	<i>Interstate Transmission Charges</i>		306.05	
	<i>Intrastate Transmission Charges</i>		834.92	
	<i>SLDC Charges</i>		14.97	
	TOTAL INCLUDING TRANSMISSION CHARGES	25672.30	7937.97	3.09

7.3.7 Other components of ARR

CSPDCL's submission

The Commission, in the MYT order, had approved the ARR for CSPDCL for FY 2015-16. Apart from the revision in the Power Purchase Cost, CSPDCL has also proposed revision in the other components of ARR like interest and finance charges, depreciation, etc. CSPDCL also submitted the reasons for seeking revision in the other components of ARR for FY 2015-16.

Commission's Analysis

In accordance with CSERC MYT Regulations, 2012, only the power purchase cost and the Retail Tariff to the extent in variation in revenue shall be revised in the yearly tariff exercise after the issuance of the MYT Order. Hence, the Commission has not revised the other components of ARR from that approved in the MYT Order.

7.3.8 Aggregate Revenue Requirement

Based on the above, the ARR approved by the Commission for FY 2015-16 is as shown in the Table given below:

Table 7.3-17: ARR approved by the Commission for FY 2015-16**(Rs. Crore)**

Particulars	MYT Order	CSPDCL Petition	Approved
Power Purchase Cost	6030	5880	6782
Inter-State Transmission charges	299	306	306
Intra-State Transmission Charges	835	835	835
SLDC fees and charges	15	15	15
O&M Expenses	931	932	931
Pension Payment	218	218	218
Interest & Finance Charges + Interest on security deposit	162	211	162
Interest on Working capital	0	0	0
Depreciation	92	205	92
Provision for Bad Debts	84	76	84
Adjustment on account of Review Order dt. 08.12.2014			4
Income Tax		0	
Return on Equity	165	190	165
Less: Non-Tariff Income	423	277	423
Aggregate Revenue Requirement	9340	8590	9171

7.3.9 Revenue and Revenue Gap at Existing Tariffs**CSPDCL's submission**

CSPDCL has projected the revenue from sale of power at existing tariffs as Rs. 7576 Crore. Accordingly, the revenue gap claimed by CSPDCL works out to Rs. 1014 Crore.

Commission's Analysis

In addition to the revenue gap for FY 2015-16, CSPDCL has also claimed the Revenue Gap on account of true up for FY 2013-14 including carrying cost as Rs. 1405 Crore. Thus, the total revenue gap for FY 2015-16 actually sought by CSPDCL works out to Rs. 2419 Crore. CSPDCL proposed to recover Rs. 450 Crore of the above revenue gap from GoCG subsidy. CSPDCL has thus, proposed to recover the remaining gap of Rs. 1969 Crore from Retail Tariff for FY 2015-16.

In accordance with the requirement of the CSERC MYT Regulations, 2012, the Commission has estimated the revenue from sale of electricity on the basis of the prevailing tariff applicable for each consumer category and the category-wise sales projected by the Commission, as discussed earlier. The Commission has estimated the revenue from demand charges in case of HT categories, by considering the ratio of Billing Demand to Contract Demand at 85% as submitted by the Petitioner.

Based on the estimated sales and existing retail tariff, the revenue from sale of power works out to Rs. 8365.75 Crore. The consumer category-wise revenue from existing tariff for FY 2015-16, estimated by the Commission is given in the following Table:

Table 7.3-18: Revenue at Existing Tariff estimated by the Commission

Sr. No.	Category	Revenue (Rs. Crore)
A	LV	
1	Domestic including BPL	1944.24
2	Non-Domestic (Normal Tariff)	591.21
3	Non-Domestic (Demand Based tariff)	8.79
4	Agriculture-Metered	697.49
5	Agriculture- Allied Activities	9.10
6	LT Industry	300.84
7	Public Utilities	125.75
8	Temporary	202.68
B	EHV	
1	Railway Traction	518.78
2	Heavy Industries	1114.41
3	Steel Industries	151.83
C	HV	
1	Steel Industries	1369.39
2	Coal Mines, Cement, Other Industries & General Purpose Non-Industries	1095.88
3	Low Load Factor Industries	78.52
4	Residential, PWV, Irrigation & Agriculture Allied Activities	128.41
5	Start-up power tariff	27.98
6	Industries related to renewable power tariff	0.45
D	Total	8365.75

Accordingly, the stand-alone revenue Gap for FY 2015-16 for CSPDCL works out to Rs. 806 Crore. Further, the Commission has approved the Revenue Gap on true up for CSPDCL for FY 2013-14 including carrying cost as Rs. 734.64 Crore. Also, the Commission has approved the net surplus of Rs. 84 Crore on true up for CSPTCL for FY 2013-14, net deficit of Rs. 188 Crore for CSPGCL for FY 2013-14, and net surplus of Rs. 1.92 Crore for SLDC for FY 2013-14.

The cumulative Revenue Gap for CSPDCL for FY 2015-16, after considering all the above Revenue Gap/(Surplus) of CSPDCL, CSPGCL, CSPTCL, and SLDC for FY 2013-14, approved by the Commission is shown in the Table below:

Table 7.3-19: Cumulative Revenue Gap approved by the Commission for FY 2015-16**(Rs. Crore)**

Particulars	CSPDCL Petition	Approved
Aggregate Revenue Requirement	8590	9171
Revenue receipt from Sale (With existing Tariff)	7,576	8,366
Standalone Surplus/(Shortfall) of CSPDCL for FY 2015-16	(1,014)	(806)
Revenue Surplus/(Shortfall) of CSPDCL for FY 2013-14	(1,310)	(1,075)
Carrying Cost in lieu of shortfall of revenue	(95)	(126)
Revenue Gap for FY 2013-14 with carrying cost	(1,405)	(1,201)
Adjustment of Surplus/(Deficit) of CSPGCL, CSPTCL & CSPDCL	-	466
Adjusted Gap for FY 2013-14 with carrying cost	(1,405)	(735)
Revenue Surplus/(Shortfall) of CSPTCL for FY 2013-14, along with CC/HC		84
Revenue Surplus/(Shortfall) of CSPGCL for FY 2013-14, along with CC/HC		(188)
Revenue Surplus/(Shortfall) of SLDC for FY 2013-14, along with CC/HC		1.92
Total Revenue Requirement of CSPDCL for FY 2015-16	9,995	10,008
Total Revenue Gap	(2,419)	(1,642)
GoCG subsidy	450	450
Net Revenue Gap	(1969)	(1192)
Adjusted ARR		9558

Table 7.3-20: Approved Adjusted Average Cost of Supply for FY 2015-16

Particulars	Approved
ARR for FY 2015-16, Rs. Crore	10008
Total Estimated sales for FY 2015-16, MU	18735.40
Cost of Supply without GoCG Subsidy, Rs./kWh	5.34
GoCG Subsidy Rs. Crore	450
Adjusted ARR , Rs. Crore	9558
Adjusted Average Cost of Supply, Rs./kWh	5.10

8. TARIFF PRINCIPLES AND TARIFF DESIGN

8.1 TARIFF PRINCIPLES

In determining the retail supply tariff for FY 2015-16, the Commission has been guided by the provisions of the Electricity Act, 2003, CSERC MYT Regulations, 2012, National Electricity Policy (NEP), and Tariff Policy (TP). Section 61 of the Act lays down the guiding principles for determination of retail supply tariff, viz., the tariff should 'progressively reflect the cost of supply of electricity' and also 'reduce cross-subsidy'. The Act lays special emphasis on safeguarding consumer's interest and requires that the 'cost should be recovered in a reasonable manner'. These and other principles enunciated in this provision of the Act have been suitably incorporated in the CSERC MYT Regulations, 2012. The Tariff Policy notified by the Government of India in January, 2006 provides comprehensive guidelines for determination of tariff as also for working out revenue requirements of power Utilities.

In this Tariff Order, the ARR and tariff has been determined under the MYT framework as stipulated by the Tariff Policy and in accordance with the CSERC MYT Regulations, 2012 notified by this Commission.

In determining the tariff for the year, the Commission has followed the cost plus method after necessary prudence check, and has also continued the process of rationalisation of tariff, a process which was started with the first Tariff Order of the Commission for FY 2005-06 in order to ensure that the tariffs reflect, as far as feasible, the cost of supply. The mandate of the Tariff Policy that cross subsidies should be reduced and tariff should be within +/- 20% of the Average Cost of Supply has been the guiding principle for the Commission. The cross subsidies are being reduced over the years and the same philosophy has been followed this year also.

8.2 TARIFF DESIGN

In the Petition, CSPDCL submitted the ARR for FY 2015-16, and estimated a standalone Revenue Gap of Rs.1014 Crore for FY 2015-16 and cumulative revenue gap till FY 2015-16 of Rs. 2419 Crore including the carrying cost. However, CSPDCL did not propose revised category-wise tariffs for meeting the revenue gap.

As elaborated in Chapter 7 of this Order, the Commission has approved a cumulative Revenue Gap of Rs. 1192 Crore for CSPDCL for FY 2015-16. For recovering this Revenue Gap, the Commission has revised the category-wise tariff, in such a manner that

the Revenue Gap is recovered, while at the same time, the consumers are not subjected to a tariff shock, and the cross-subsidies are also reduced.

As regards the Variable Cost adjustment (VCA), it is clarified that from the date of implementation of the instant Order, i.e., June 1, 2015, for the purpose of computation of FCA / VCA for the succeeding months (in line with the prevailing Order), the power purchase rate from CGS stations, base rate and CV of coal for CSPGCL stations, on which deviation is derived, shall be considered with respect to values considered in this Order.

As regards Voltage-wise Cost of Supply is concerned, the Commission is duty bound to comply with the directions of the Hon'ble Tribunal. CSPDCL has not submitted the details of Voltage-wise Cost of Supply in the MYT Petition that was published for public comments. It is observed that in case of CSPDCL, if the tariff is designed as per methodology suggested by Hon'ble Tribunal, it may lead to a severe tariff shock to certain categories of consumers. In the interest of natural justice, such consumers are required to be given a reasonable opportunity to give their comments and before determining tariffs and cross-subsidy on the basis of Voltage-wise Cost of Supply.

In view of all the above reasons, it would not be appropriate to determine tariffs on the basis of Voltage-wise Cost of Supply at this point of time, and hence, for the purpose of this Order, the Commission has continued to compute the cross-subsidy with respect to the Average Cost of Supply.

Considering the importance of Voltage-wise Cost of Supply and directions issued by Hon'ble Tribunal, the Commission again directs the Petitioner to carry out a study and submit a detailed report on Voltage-wise Cost of Supply and its impact on the tariff design.

8.3 TARIFF RATIONALISATION

CSPDCL's submission

CSPDCL requested the Commission to consider uniform tariff hike across all the categories to bridge the Revenue Gap for FY 2015-16, subject to compliance with the Tariff Policy.

CSPDCL proposed the following tariff rationalisation measures:

- i. Introduction of kVAh Tariff for all categories with load above 50 HP, except for domestic and agriculture categories.
- ii. Introduction of ToD Tariff for LT industrial and commercial consumers above 25 HP, as applicable to HT and EHT consumers.
- iii. CSPDCL requested the Commission to allow levy of meter rent on the Domestic category similar to other categories, in view of the increase in metered domestic consumers.

Commission's Analysis

The Commission has introduced kVAh tariffs for all HV categories, in addition to the existing HV-5 and HV-6 categories, in continuation of the Commission's philosophy of moving from kWh based tariff to kVAh based tariff in order to improve the power factor and hence, voltage profile of the system and reduce the Copper loss (I²R).

The Commission has not accepted CSPDCL's request for introduction of ToD tariff for LT industrial and commercial consumers above 25 HP, as CSPDCL submitted that ToD meters had not been installed for all such consumers. Further, the peak hour charges for the energy consumed during peak hours, i.e., 6 p.m. to 11 p.m., introduced in the previous Tariff Order 2014-15 for all LV-2 (Non-Domestic) and LV-5 (LT Industrial) consumers having a connected/contracted load of 50 HP or 37 kW and above, has been withdrawn based on representation received from the consumers.

The Commission has not accepted CSPDCL's request for levy of meter rent on the Domestic category and continued the earlier provision.

CSPDCL Submission

CSPDCL proposed the following additional tariff rationalisation measures for FY 2015-16 in response to the Commission's query related to tariff rationalization majors:

- i. The supply of electricity to Samudayik Bhawans located in Scheduled Areas (specified in the Scheduled Areas (State of Chhattisgarh, Jharkhand and Madhya Pradesh) Order, 2003 issued under the Fifth Schedule of the Constitution of India) should be under Domestic category.
- ii. Introduction of promotional tariff equivalent of 80% of Average Cost of Supply for IT industries and IT enabled services established under GoCG's IT Policy, 2012-17.
- iii. Energy Charge for ToD Tariff as shown in the Table below:

Table 8.3-1: Energy Charge for ToD Tariff for FY 2015-16 proposed by CSPDCL

Particulars	Energy Charge
Normal period (5.00 A.M. to 6:00 P.M.)	Normal rate of Energy Charge
Evening peak load period (6:00 P.M. to 11:00 P.M.)	140% of the normal rate of Energy Charge
Off-peak load period (11:00 P.M. to 5:00 A.M. of next day)	75% of the normal rate of Energy Charge

- iv. Discontinuation of the Optional Tariff HV-1.4 under the 33 kV Steel Industry Category.
- v. ‘Special Tariff’ for Railways where two traction sub-stations are running in parallel.

CSPDCL further submitted followings related to proposal of ‘Special Tariff’ for Railways where two traction sub-stations are running in parallel in response to the Commission query:

- i. Number of such traction sub-stations
- ii. Total Contract Demand and Sales to such sub-stations in FY 2012-13 and FY 2013-14.
- iii. Elaboration on the specific proposal of CSPDCL in this context.
- iv. Justification for the proposal in terms of need, impact on revenue, etc.

CSPDCL submitted that there are two traction connections availed by East Coast Railway for two traction sub-stations at 132 kV voltage level situated in Kawargaon and Kumar Sodru on Waltair Kirandul railway section with Contract Demand of 9200 kVA and 10000 kVA, respectively. The Contract Demand and sales during FY 2012-13 and FY 2013-14, as submitted by CSPDCL are shown in the Table below:

Table 8.3-2: Contract Demand and Sales for Kawargaon and Kumar Sodru for FY 2012-13 and FY 2013-14 as submitted by CSPDCL

Name of the Traction sub-station	Contract Demand (kVA)		Sales (MU)	
	FY 2012-13	FY 2013-14	FY 2012-13	FY 2013-14
Kawargaon	9200	9200	14.042	14.943
Kumar Sodru	10000	10000	13.324	14.705

CSPDCL submitted that the above two connections availed by East Coast Railway for their Traction sub-station are running in parallel on LT side. CSPDCL submitted that it had requested the Railway authorities for de-parallelizing of these two substations but

Railway authorities informed that the same could not be done due to technical snag. CSPDCL submitted that by paralleling of these two sub-stations, Railways is putting the Licensee in financial loss. If a load is fed from two different sources, the maximum demand recorded in any time block shall be lower than the maximum demand recorded if the load is fed from one source, as in the first case, load is shared by two sources. CSPDCL submitted the technical calculation sheet indicating the effect of parallel/de-parallel operation on the maximum demand citing the example of parallel operation of two traction sub-stations namely Bhansi and Geedam during the period from April 1989 to April 1990. CSPDCL requested the Commission to introduce appropriate billing mechanism for traction sub-stations running in parallel for Railways, which would address the issue of suppressing of maximum demand.

Commission's Analysis

The Commission is of the view that CSPDCL has not clearly stated the "appropriate billing mechanism" that it desires in the present matter, and has also not stated the exact financial loss to CSPDCL on this account. Further, the Commission is of the view that the circumstances prevalent in the present case are an exception, and are possibly necessitated by the ground requirements. Hence, the Commission has not accepted CSPDCL's request in this regard. In case CSPDCL is desirous of introducing any "appropriate billing mechanism" for addressing the particular requirement, CSPDCL should submit the specific proposal in this regard, along with the next Tariff Petition, which will also enable the Railways to submit its views on CSPDCL's proposal, and the Commission can take an informed decision in the matter at that time.

CSPDCL Submission

In reply to Commission's following query regarding proposal for concessional Tariff for IT industry and IT enabled services:

- i. Number of such existing consumers along with the details of connected load/contracted demand and sales in FY 2012-13, FY 2013-14 and FY 2014-15.
- ii. Clarification regarding the consumer category under which such consumers are currently billed.
- iii. Justification for the proposal in terms of need, impact on revenue etc.

CSPDCL submitted that GoCG had recently approved the IT Policy 2012-17 for the promotion and development of IT industry and IT enabled services in the State. GoCG

has proposed the promotional tariff equivalent to the Average Cost of Supply to the IT industries established under the stated Policy.

CSPDCL submitted that there had been no such specific IT industry and IT enabled services, which have availed LT supply during FY 2012-13, FY 2013-14 and FY 2014-15. Concessional Tariff has been proposed for promotion of establishment of IT industrial park and IT enabled services in the State. CSPDCL submitted that the tariff design should be as such that the existing mobile towers, telephone exchange, cyber café, etc., are not covered under this category. CSPDCL submitted that the impact on revenue cannot be predicted as there are no consumers at present.

Commission's Analysis

In this context, the Commission has introduced a new tariff category LV-7 and HV-8 for IT Industries units receiving supply at LV voltage and HV voltage, respectively, and having minimum Contract Demand of 50 kW, and the tariff for this category has been kept equal to the Average Cost of Supply, rather than 80% of Average Cost of Supply as proposed by CSPDCL.

CSPDCL Submission

In response to the Commission query regarding justification for the proposal to discontinue Optional Tariff for HV 1.4 for 33 kV Steel Industry along with the financial implications. CSPDCL submitted that in the approval of Retail Tariff for FY 2014-15, the Commission had introduced the Optional Tariff HV-1.4 for 33 kV Steel Industry category in addition to existing HV-1.1, HV-1.2 and HV-1.3. The presumption was that the Steel Industry consumers would bear minimum guaranteed payment of electricity bill by opting for optional tariff, so that its revenue demand would increase. CSPDCL submitted that after the introduction of the same, many steel industry consumers opted for the optional tariff. From the analysis of six months data of demand and sales under this category, it has been observed that the increase in sales is not getting proportionately reflected in revenue demand. In light of this, CSPDCL requested the Commission to discontinue the optional tariff as proposed.

Commission's Analysis

In this context, the Commission has retained the Optional tariff to HV-1 Steel Category introduced in the Tariff Order for FY 2014-15, as complete data is not available regarding the contribution of this Optional tariff in terms of increased consumption and increased revenue.

The tariff of all consumer categories has been increased in order to recover the approved revenue gap. The Commission has increased the Fixed/Demand Charges in order to increase the recovery of fixed costs through Fixed Charges.

The tariff for all consumer categories have been increased in such a manner that the cross-subsidies are reduced gradually, and the tariff for most of the consumer categories is within the band of $\pm 20\%$ of Average Cost of Supply, as stipulated by the Tariff Policy notified by the Government of India.

8.4 LT CATEGORIES

8.4.1 LV-1: Domestic

In continuation of the principle adopted by the Commission in its Tariff Order dated March 31, 2011, there shall be no separate category for BPL consumers. All domestic consumers including BPL card holders shall be provided a domestic connection. Each BPL card holder will be eligible for the subsidy, if any, given by the State Govt (subject to the condition of fulfilling the eligibility criteria specified by the State Government). The consumers in the BPL category shall be charged for their consumption over and above the subsidised units at a rate determined for domestic consumers in this order.

The tariff for all consumption slabs of LV-1 category has been revised. In LV-1 domestic category, the Commission has split the consumption slab of 0-200 units by introducing two new consumption slabs, i.e., 0-40 units per month and 41-200 units per month, as under:

Slab 1: 0-40 units;

Slab 2: 41-200 units;

Slab 3: 201-600 units; and

Slab 4: more than 600 units.

The tariff for 0-40 units per month has been increased at a lower rate. However, due to the telescopic nature of the tariff structure for domestic category, all the consumers in the domestic category including consumers having higher consumption will benefit from the lower tariff in the lower consumption slabs.

8.4.2 LV-2: Non-Domestic

The tariff for all consumption slabs of LV-2 category has been revised. The option for demand based tariff for non-domestic category will continue.

8.4.3 LV-3: Agriculture

The tariff for agricultural consumers has been revised.

The agricultural consumers should be given the due benefit of the subsidy, if any, made available to them by the Govt. of Chhattisgarh from time to time.

8.4.4 LV-4: Agriculture Allied Activities

The tariff for all sub-categories of agricultural allied category has been revised.

The option for demand based tariff for agriculture allied activities category will continue.

8.4.5 LV-5: L.T. Industries

The tariff for all sub-categories of L.T. industry category has been revised.

8.4.6 LV-6: Public Utilities

The tariff for the Public Utilities category has been revised.

8.4.7 LV-7: Information Technology Industries

The Commission has introduced a new tariff category LV-7 for IT Industries receiving supply at LV voltage and having minimum contract demand of 50 kW, and the tariff for this category has been kept equal to Average Cost of Supply.

8.4.8 LT Temporary Supply

The tariff for temporary supply is maintained at one and a half times the tariff for the respective categories with permanent connection. However, in case of excess drawal of power than contracted, the billing as per provision of excess supply as in case of permanent connection shall also be applicable.

All LT installations which have welding transformers are required to install suitable capacitor(s) so as to ensure power factor of not less than 85%. Consumers not complying with the above shall have to pay surcharge of 75 (seventy-five) paisa per unit on the entire monthly consumption, provided the load of the welding transformer(s) exceeds 25% of the total connected load of connection.

8.4.9 Terms and Conditions of LT Supply

The Commission has retained the provision related to rounding off of Contract Demand and the Demand in fraction to be rounded off to the next whole number.

Further, as stated earlier, the peak hour charges for the energy consumed during peak hours i.e., 6 PM to 11 PM introduced in the previous Tariff Order for LV-2 (Non-Domestic) and LV-5 (Industrial) consumers having a connected/contracted load of 50 HP or 37 kW and above has been withdrawn.

8.5 EHV

8.5.1 EHV Categories

The Commission has made the EHV tariff applicable for consumers who avail supply at 400 kV, 220 kV, and 132 kV.

Though billing for all EHV consumers shall be on the basis of kVAh consumed, the Commission directs CSPDCL to record both kVAh and kWh consumed by all EHV consumers and include the same in the R-15 prepared by it each month.

8.5.2 EHV-1: Railway Traction

The tariff for this category has been increased.

8.5.3 EHV-2: Heavy Industries & Other Consumers

The tariff for this category has been increased.

8.5.4 EHV-3: Steel Industries

The tariff for this category has been increased.

8.6 HV CATEGORIES

The Commission has split the existing tariff category HV-4 into two categories, i.e., HV-4 (Residential, Irrigation & Agriculture Allied Activities) and HV-5 (Public Water Works). As a result, the existing HV-5 and HV-6 categories have been renamed as HV-6 and HV-7 respectively.

The Commission has introduced a new tariff category HV-8 for IT Industries units receiving supply at HV voltage and having minimum contract demand of 50 kW, and the tariff for this category has been kept equal to Average Cost of Supply.

In continuation of the Commission's philosophy of moving from kWh based tariff to kVAh based tariff in order to improve the power factor and hence, voltage profile of the system, the Commission has introduced kVAh based energy charges for the remaining

HT categories including the newly created categories, i.e., HV-1 (Steel Industry), HV-2 (Mines, Cement, Other Industries and General Purpose Non-Industries), HV-3 (Low Load Factor Industries), HV-4 (Residential, Irrigation & Agriculture Allied Activities) and HV-5 (Public Water Works).

The Commission has merged the two existing sub-categories of industries receiving supply at 33 kV and industries receiving supply at 11 kV, for HV-1, HV-2, HV-3, HV-4 and HV-5 categories as defined in this Order.

Since kVAh billing has been introduced for all HV categories, the Power Factor Incentive and Surcharge has been discontinued for these categories.

Though billing for all HV consumers shall be on the basis of kVAh consumed, the Commission directs CSPDCL to record both kVAh and kWh consumed by all HV consumers and include the same in the R-15 prepared by it each month.

8.6.1 HV-1: Steel industries

The tariff for this category has been increased and optional tariff as per tariff schedule shall be applicable.

8.6.2 HV-2: Mines, Cement, Other Industries and General Purpose Non-Industrial

The tariff for this category has been increased.

8.6.3 HV-3: Low load factor industries

The tariff for this category has been increased.

8.6.4 HV-4: Residential, Irrigation and Agriculture Allied Activities

The tariff for this category has been increased.

8.6.5 HV-5: Public Water Works

The tariff for this category has been increased.

8.6.6 HV-6: Start-up Power

Generating plant, captive generating plant with distant located load and captive generating plant with co-located load, which does not avail start-up power connection from CSPDCL but eventually draws power from the Grid for not more than 30 minutes at one occasion shall be billed at the rate of Rs. 11.50 per kWh (as per average billing rate

for this tariff, which includes demand charges). Drawal beyond 30 minutes shall be billed at Rs. 23 per kWh.

Those Generating/ captive generating plant who have not availed start-up power connection from CSPDCL and draw power for up to 30 minutes at one occasion during a day shall be billed at the rate of Rs. 11.50 per kWh. Drawal beyond 30 minutes on the first occasion and any subsequent occasion of drawal during a day shall be billed at Rs. 23.00 per kWh.

As the billing for start-up power consumers having contracted load is billed in kVAh, power factor incentive/penalty should not be levied. Power factor incentive/penalty should be levied to start-up power consumers who have not availed start-up power connection from CSPDCL and eventually draw power from grid as their billing is done in kWh.

8.6.7 HV-7: Industries related to manufacturing of equipment for power generation from renewable energy sources.

The tariff for this category has been increased.

8.6.8 HV-8: Information Technology Industries

The Commission has introduced a new tariff category HV-8 for IT Industries receiving supply at HV voltage and having minimum contract demand of 50 kW, and the tariff for this category has been kept equal to Average Cost of Supply.

8.7 POWER FACTOR INCENTIVE AND PENALTY

No change in the present principle and methodology of power factor incentive and penalty has been made in this Order.

8.8 TARIFF FOR STAND-BY CHARGES

No change in the present principle and methodology of tariff for stand-by charges has been made in this Order.

8.9 REVENUE AT APPROVED TARIFF

Existing tariff will be applicable for 2 months and approved tariff will be applicable for 10 months with effect from June 1, 2015, for the consumers of the State for FY 2015-16.

The expected consumer category wise revenue from the approved tariffs given in the tariff schedule for FY 2015-16 is as given in the table below:

Table 8.9-1: Revenue in FY 2015-16 at Tariffs approved by the Commission

Consumer Category		Revenue (Rs. Crore)
A	LV	4,453.15
1	Domestic including BPL	2,150.31
2	Non Domestic (Normal Tariff)	629.96
3	Non Domestic (Demand Based Tariff)	9.71
4	Agriculture – Metered	930.81
5	Agriculture – Allied Activities	9.90
6	LT Industry	333.45
7	Public Utilities	139.10
8	Temporary	249.91
B	EHV	1,958.06
1	Railway Traction	540.82
2	Heavy Industries	1243.72
3	Steel Industries	173.53
C	HV	5,164.36
1	Steel Industries	1,693.97
2	Mines and Cement, Other Industries & General Purpose Non-Industries	1,236.30
3	Low Load Factor Industries	92.18
4	Residential, Irrigation & Agriculture Allied Activities	122.17
5	Public Water Works	30.63
6	Start-up power Tariff	30.56
7	Industries related to renewable power tariff	0.48

8.10 CROSS SUBSIDY

An element of cross-subsidy is inherent in the present and revised tariff structure. The tariffs of different consumer categories in relation to the Average Cost of Supply (Rs. 5.10 per kWh) is such that the tariffs for some categories of consumers, mainly LV Non-Domestic, LV Industrial and HV consumers, are higher than the ACOS while the tariffs for others are lower than the ACOS. The Commission has reduced the cross-subsidy in this Order, and ensured that the tariffs are within +-20% of the ACOS for most of the categories.

Table 8.10-1: Cross Subsidy with existing and approved Tariff (Rs./kWh)

Consumer Category		Approved in Tariff Order for FY 2014-15		Approved in Tariff Order for FY 2015-16	
		ABR (Rs./kWh)	ABR/ACOS (%)	ABR (Rs./kWh)	ABR/ACOS (%)
LV	Domestic	2.99	68%	4.12	81%
	Non Domestic	6.27	143%	7.26	142%
	Agriculture	2.54	58%	3.41	67%
	LT Industry	5.42	123%	6.22	122%
	Public Utilities	3.86	88%	4.37	86%
EHV	Railway Traction	5.57	127%	6.10	120%
	Heavy Industries	6.09	138%	6.13	120%
	Steel Industries	5.55	126%	5.82	114%
HV	Steel Industries	4.88	111%	5.34	105%
	Mines and Cement, Other Industries & General Purpose Non-Industries	6.09	138%	6.74	132%
	Low Load Factor Industries	7.20	164%	7.96	156%
	Residential, Irrigation & Agriculture Allied Activities	4.81	109%	5.62	110%

8.11 CROSS-SUBSIDY SURCHARGE

The Commission has determined the Cross-Subsidy Surcharge to be paid by the open access consumers, in accordance with CSERC (Connectivity and Intra-State Open Access) Regulations, 2011.

For open access consumers procuring power from renewable energy based power generating plant, the Cross-Subsidy Surcharge payable shall be 50% of the Cross Subsidy Surcharge determined for that year:

Table 8.11-1: Cross Subsidy Surcharge for Open Access Consumers (Rs. /kWh)

Particulars	EHV	HV
Average rate for subsidising categories	6.09	6.41
Average Cost of Supply	5.10	5.10
Cross Subsidy Surcharge	0.99	1.31
Cross Subsidy Surcharge at 90% of the computed value	0.89	1.18

8.12 WHEELING CHARGE

The Commission has determined the wheeling charge to be paid by the open access consumers, in accordance with CSERC (Connectivity and Intra-State Open Access) Regulations, 2011.

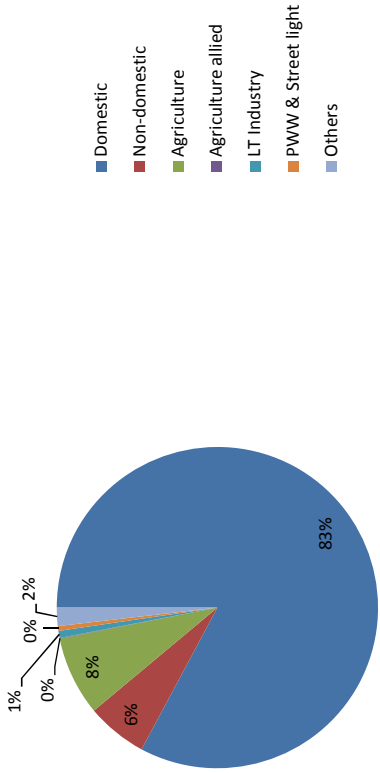
Table 8.12-1: Wheeling Charge for Open Access Consumers

Particulars	Legend	Approved
Total Energy Input into 33 kV Distribution System, MU	A	21262
Total distribution cost at 33 kV, Rs. Crore	B	1,656
Less: Interest on CSD, Rs. Crore	C	172
Distribution cost for Wires Business, Rs. Crore	$D = B - C$	1,484
Distribution cost for 33 kV voltage level (assuming 35% of distribution cost at 33 kV), Rs. Crore	$E = D \times 35\%$	519
Wheeling Charges for 33 kV Voltage level, Rs/kWh	$F = E \times 10/A$	0.244

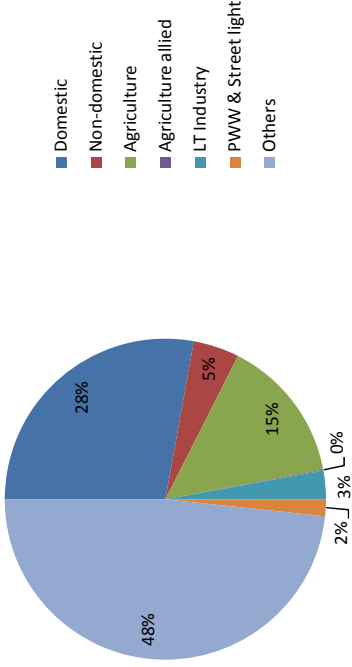
Sales & Revenue analysis

Sl.	Category	No. of consumers	Sales (MU)	% of total consumers	% of total sales	Revenue from existing tariff (Rs. Cr)	% of total existing revenue	Revenue from revised tariff (Rs. Cr)	% of total revised revenue	Increase in %
1	Domestic	3875774	5215	83%	28%	1944	23%	2150	22%	10.6%
2	Non-domestic	286329	868	6%	5%	591	7%	630	7%	6.6%
3	Agriculture	372986	2732	8%	15%	697	8%	931	10%	33.5%
4	Agriculture allied	2477	17	0%	0%	9	0%	10	0%	8.7%
5	LT Industry	34119	536	1%	3%	301	4%	333	3%	10.8%
6	PWW & Street light	22567	318	0%	2%	126	2%	139	1%	10.6%
7	Others	85685	9049	2%	48%	4697	56%	5424	56%	15.5%
TOTAL		4679937	18735			8366		9618		15.0%

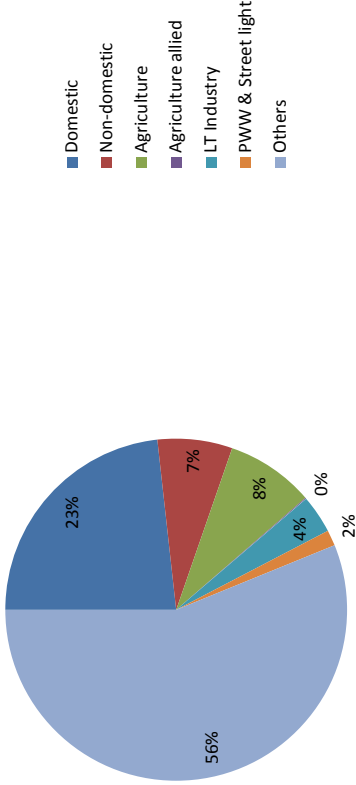
% of total consumers



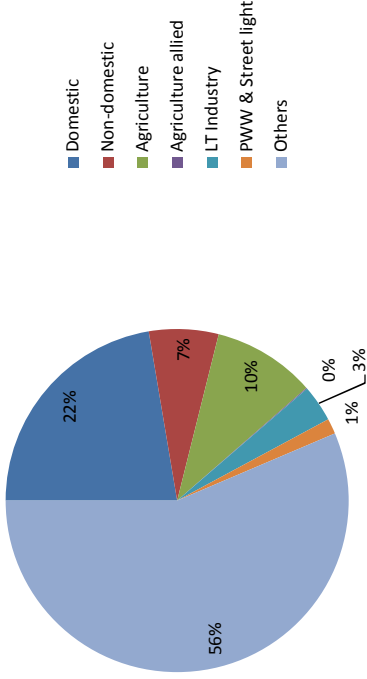
% of total sales



% of total existing revenue



% of total revised revenue



9. TARIFF SCHEDULE FOR FY 2015-16

9.1 TARIFF SCHEDULE FOR LOW TENSION (LT) CONSUMERS

This tariff schedule is applicable to all LT consumers as follows:

- i. Single-phase, 230 Volts up to a maximum connected load of 3 kW, and
- ii. Three-phase, 400 volts for maximum demand up to 75 kW in case of demand based tariff or for maximum contracted load of 100 HP in case of other tariff, as applicable.

9.1.1 LV-1: Domestic

1. Applicability

This tariff is applicable to domestic light and fan and power used for all domestic appliances, in residential premises, orphanages, homes for old/physically challenged people and homes for destitute; dharamshalas; student hostels; working women's hostels; ashrams; schools and hospitals (including X-rays, etc.) run by charitable trusts; Government hospitals/dispensaries, (excluding private clinics and nursing homes); Government Schools; farm houses; mosques; temples; churches, gurudwaras; religious and spiritual institutions; water works and street lights in private colonies and cooperative societies; common facilities such as lighting in stair case, lifts, fire-fighting in multi-storied housing complex, light and fan in khalihan, kothar, byra where agriculture produce is kept, post office at residence of a villager; residential premises of professionals such as advocates, doctors, artists, consultants, weavers, bidi makers, beauticians, stitching and embroidery workers including their chambers; public toilets; fractional HP motors used for Shailchak by Kumhars in their residences.

2. Tariff:

Category of Consumers	Units Slab	Fixed Charge (Rupees per kWh)	Energy Charge (Rs. per kWh)	Minimum Fixed Charge
LV-1: Domestic				
Domestic including BPL Consumers	0 -40 units	2.00	1.00	Single Phase Rs. 40/- p.m.
	41-200 units	2.10	1.00	
	201 - 600 units	2.80	1.60	Three phase Rs. 120/- pm
	601 and above units	4.30	2.20	

Notes:

- i. Only those domestic consumers who hold BPL Card issued by the State Government will be considered as BPL domestic consumer. BPL Card holders shall be entitled for subsidy **for 40 units** as per State Government Order, and their consumption shall be billed as per tariff LV-1.
- ii. All BPL domestic categories of consumers shall be billed as per meter reading. All the new BPL domestic connections shall be served with meter only.
- iii. If a portion of the dwelling is used for the conduct of any business other than those stipulated above, the entire consumption shall be billed under Non-domestic tariff LV-2.

9.1.2 LV-2 Non-Domestic**1. Applicability**

This tariff is applicable to light and fan and power to shops, showrooms, business houses, offices, educational institutions (except those included in LV-1 and LV-5), public buildings, town halls, clubs, gymnasium and health clubs, meeting halls, places of public entertainment, circus, hotels, cinemas, railway stations, private clinics and nursing homes including X-rays plant, diagnostic centres, pathological labs, carpenters and furniture makers, juice centres, hoardings and advertisement services, public libraries and reading rooms, typing institutes, internet cafes, STD/ISD PCO's, FAX/ photocopy shops, tailoring shops, photographers and colour labs, laundries, cycle shops, compressors for filling air, toy making industry, nickel plating on small scale, restaurants, eating establishments, Government circuit houses/rest houses, guest houses, marriage gardens, farmhouses being used for commercial purposes, book binders, petrol pumps and service stations, HV industrial consumers seeking separate independent LT connection in the same premises of HV industrial connection and other consumers not covered under any other category of LT consumers.

2. Tariff:

Category of Consumers	Units Slab	Fixed Charge (Rs per kWh of Contracted load/Demand)	Energy Charge (Rs. per kWh)
LV-2.1:Non-Domestic (Normal Tariff)	0 – 100 units	Rs. 60 per kW per month up to 3 kW and Rs. 120 per kW per month above 3 kW	4.40
	101 - 500 units		4.90
	501 and above units		6.20
LV-2.2: Non-Domestic Demand Based Tariff (for Contract demand of 15 to 75 kW)		Demand Charges- Rs 200/kW/month on billing demand	5.60

Note:

- Fixed charges for LV-2.1 are non-telescopic. For example, if connected load is 5 kW then monthly fixed charges shall be Rs. 600 per month;
- The tariff LV-2.2 will be optional.
- Fixed Charges of LV-2.1 and Demand Charge on contract demand of tariff LV-2.2 is a monthly minimum charge, whether any energy is consumed during the month or not.

9.1.3 LV-3 L.T. Agriculture

1. Applicability

This tariff is applicable to agricultural pumps/tube wells used for irrigation (including drip and sprinkler system) for crops, nursery, horticulture crops (growing vegetables and fruits), floriculture (growing flowers), growing of herbs/medicinal plants and mushroom, jatropha plantation, chaff cutters, thresher, winnowing machines, sugarcane crushers used on agricultural land, lift irrigation pumps/tube wells of State Government or its agencies; water drawn by agriculture pumps used by labour, cattle, and farm houses in the premises of agriculture farms for drinking purposes only and packaging of agriculture produce at farm, khalihan etc.

2. Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-3: L.T. Agriculture	Rs. 70/HP/month	3.15

One 40W incandescent bulb or CFL/LED of wattage not exceeding 20W is permitted at or near the motor pump set in the power circuit.

Notes:

- i. All new connections of above 3 HP shall be served only after installation of capacitor of specified rating to maintain power factor of 0.85 and above.
- ii. All pump connections of above 3 HP load not provided with capacitors of specified rating and who do not maintain power factor of 0.85 and above, shall be required to pay surcharge of 35 paise per unit.
- iii. Fixed Charge is monthly minimum charge whether any energy is consumed or not during the month.

9.1.4 LV- 4 L.T. Agriculture Allied Activities

1. Applicability

This tariff is applicable to pump/tube well connections, other equipment and light and fan for tree plantation, fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture, aquaculture laboratories, and milk chilling plant.

2. Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-4.1: Up to 100 HP or 75 kW	Rs. 120 per HP per month or Rs 160 per kW per month	4.30
LV-4.2: Demand based tariff for contract demand of 15 to 75 kW	Rs. 210 per kW per month on billing demand	4.10

Note:

- i. All connections shall be required to maintain average monthly power factor of 0.85 by providing capacitors of suitable rating, failing which they shall be required to pay surcharge of 35 paise per unit.
- ii. For tariff LV-4.1, Fixed Charge is monthly minimum charge and for tariff LV-4.2 Demand Charge on contract demand is monthly minimum charge whether any energy is consumed during the month or not.

9.1.5 LV-5 L.T. Industry

1. Applicability

These tariffs are applicable to light and fan and power for industries such as flour mills, hullers, grinders for grinding masala, power looms, rice mills, dall-mills, oil mills, ice factories, cold storage plants, ice candies; laboratories of engineering colleges, ITIs and polytechnics and industrial institutions; workshops and fabrication shop, etc.

2. Tariff:

Category of Consumers		Fixed Charge	Energy Charge (Rs. per kWh)
LV-5: L.T. Industry			
5.1	Flour mills, Hullers, power looms, grinders for grinding masalas up to 15 HP	Rs 80/HP/month	3.00
5.2	Other Industries		
5.2.1	Up to 25 HP	Rs 100/HP/month	3.80
5.2.2	Above 25 HP up to 100 HP	Rs 140/HP/month	4.10
5.3	Demand based Tariff- for Contract Demand of 15 kW to 75kW	Demand charges- Rs. 210/kW/month on billing demand	4.40

Notes:

- Demand based tariff LV-5.3 is applicable for maximum contracted demand from 15 kW to 75 kW.
- For tariff LV-5.1 and LV-5.2, Fixed Charge is monthly minimum charge and for tariff LV-5.3, the Demand Charge on contract demand is a monthly minimum charge whether any energy is consumed during the month or not.

9.1.6 LV-6 Public Utilities

1. Applicability

This tariff is applicable to public utilities such as water supply schemes, sewage treatment plants and sewage pumping installations, crematorium, traffic signals and lighting of public streets including public parks and archaeological and other monuments when requisition for supply is made by Public Health Engineering Department, local bodies, Gram Panchayats or any organization made responsible by the Government to maintain these services.

2. Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-6: Public utilities Public street light and water works	Rs. 100/HP/month or Rs. 135/kW/month	4.00

Note:

Fixed Charge is monthly minimum charge whether any energy is consumed during the month or not.

9.1.7 LV-7 Information Technology Industries

1. Applicability

This tariff is applicable to Information Technology Industries having minimum contract demand of 50 kW.

2. Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)	Minimum Charge
LV-7: Information Technology Industries	Nil	5.10	Rs. 1500/- per month

Note:

Minimum Charge is monthly minimum charge whether any energy is consumed during the month or not.

9.1.8 LT Temporary Supply

1. Applicability

This tariff is for connections that are temporary in nature. The tariff applicable shall be as given for the respective category of consumer.

Temporary supply cannot be demanded by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made subject to technical feasibility.

2. Tariff:

Fixed charge and energy charge to be billed at one and half times the normal tariff as applicable to the corresponding consumer categories.

Notes:

- i. An amount equal to estimated bill for 3 months or for the period of temporary connection requisitioned, whichever is less, is payable before serving the temporary connection subject to replenishment from time to time and adjustment in the last bill after disconnection.
- ii. No temporary connection shall be served without a meter. Agricultural connections shall also be billed one and half times of metered supply tariff (LV-3).
- iii. Connection and disconnection charge shall be paid as per the schedule of miscellaneous charges.
- iv. No rebates/concessions under any head shall be applicable to temporary connections.
- v. A month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or part thereof.
- vi. In case connected load/maximum demand is found more than contracted load/contract demand, then the billing of excess load/supply shall be done for the amount calculated as per the Clause 8 of the terms & conditions of LT tariff.
- vii. Any expenditure made by the Licensee for providing temporary supply up to the point of supply, shall be paid for by the consumer as per prescribed procedure.
- viii. Temporary connections shall not be served unless suitable capacitors, wherever applicable, are installed so as to ensure power factor of not less than 0.85 lagging.
- ix. Surcharge at the rate of 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition, from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

9.1.9 Terms and Conditions of L.T. Tariff

1. Energy will be supplied to the consumer ordinarily at a single point for the entire premises of the consumer.
2. No new L.T. connection above 75 kW of contract demand/100 HP of contracted load shall be served.

3. All existing L.T. connections with contracted load above 100 HP (75 kW), which have not availed H.T. supply so far shall be levied 35% additional charge on total amount of monthly bill comprising fixed charge/demand charge and energy charge.
4. Contracted load/connected load or contract demand/maximum demand infraction shall be rounded off to the next whole number.
5. For the purpose of separate independent LT connection to HV industrial consumer in the same premises of HV industrial connection, to meet out its essential load during emergency on non-availability of supply in HV connection under LV 2 category conditions as mentioned in clause 4.40 of the Chhattisgarh State Electricity Supply Code and its amendment if any shall be applicable.
6. For the purpose of Demand Based Tariff (LV-2.2. LV-4.2 and LV-5.3)
 - i. **Determination of Maximum Demand**- The maximum demand of the consumer in each month shall be twice the largest amount of kilo Watt hours delivered at the point of supply of the consumer, during any consecutive thirty minutes, in that month.
 - ii. **Billing Demand**– The billing demand for the month shall be the actual maximum kW demand of the consumer recorded during the month or 75% of the contract demand or 15 kW, whichever is higher. The billing demand shall be rounded off to the next whole number.
 - iii. **Minimum Charge** – The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.
 - iv. There shall be no restriction on connected load for applicability of demand based tariff.

7. Power Factor Incentive and Surcharge

- i All LT industrial, agriculture allied, public water works, sewage treatment plants and sewage pumping installations' consumers shall arrange to install suitable low tension capacitors of appropriate capacity at their cost. The consumer also shall ensure that the capacitors installed by them properly match with the actual requirement of the load so as to ensure average monthly power factor of 0.85 or above. A consumer who fails to do so shall be liable to pay power factor surcharge @ 35 paise per unit on the entire consumption of the month.
- ii All the agriculture pump connections of above 3HP shall provide with capacitor of specified rating and maintain average monthly power factor of 0.85 or above

failing which they shall be required to pay power factor surcharge @ 35 paise per kWh on the entire consumption of the month.

- iii All LT non-domestic consumers with contracted load/connected load of 15 kW or above shall arrange to install suitable low tension capacitors of appropriate capacity at their cost. The consumer shall ensure that the capacitors installed by him properly match with the actual requirement of the load so as to ensure average monthly power factor of 0.85 or above. A consumer who fails to do so will be liable to pay power factor surcharge @ 35 paise per kWh on the entire consumption of the month.
- iv All LT installations having welding transformer are required to install suitable low tension capacitors so as to ensure power factor of not less than 0.85. Consumers not complying with the above shall have to pay surcharge of 75 paise per kWh on the entire monthly consumption, provided the load of the welding transformer(s) exceeds 25% of the total connected load.

Note - For the purposes of computing the connected load in kW of welding transformers, a power factor of 0.6 shall be applied to the kVA rating of such welding transformers. The kVA rating can also be calculated on the basis of load voltage and maximum load current on secondary side of welding machine.
- v The average monthly power factor recorded in the meter shall be considered for billing of power factor surcharge or power factor incentive, as the case maybe.
- vi Levy of power factor surcharge as indicated above, shall be without prejudice to the rights of CSPDCL to disconnect the consumer's installation after issue of 15 days' notice if the average monthly power factor remains 0.7 or below for a period of more than two consecutive months. It shall remain disconnected till the consumer makes suitable arrangements to improve the power factor to the satisfaction of CSPDCL.
- vii Notwithstanding the above, if the average monthly power factor of a new consumer is found to be less than 85% at any time during the first six months from the date of connection and if he maintains average monthly power factor continuously in subsequent three months at not less than 85% then the surcharge billed on account of low power factor during the said period shall be withdrawn and credited in next month bill.
- viii All categories of LT consumers except the LT domestic consumers in whose case power factor surcharge is applicable; shall also be eligible for power factor

incentive. Such incentive shall be payable @ 10 paise per unit on the entire consumption of that month in which he maintains an average monthly power factor equal or above 0.90 and @ 15 paise per unit of entire consumption of that month in which he maintains an average monthly power factor 0.95 or above.

8. Provisions of billing in case of Excess Supply

i. For Normal Tariff consumers

1. In case the connected load of any LT consumer, except the domestic (LV-1) consumers, is found at any time in excess of contracted load, the consumer shall have to pay charges at tariff (fixed and energy charge) corresponding to the excess load at the rate of one and half times the normal tariff for the excess load to the extent of 20% of contracted load and at the rate of two times of the normal tariff if the excess load is found beyond 20% of contracted load for actual period of enhancement of load or 6 months whichever is less, including the month in which the existence of excess load is detected and shall be continued to be billed till excess load is removed or contract load is enhanced.
2. Where the recording facility of demand is available, the billing on account of excess supply shall be restricted to the recorded month only.

ii. For Demand Based tariff consumers

Consumers availing supply at demand based tariff (LV-5.3/LV-4.2/LV- 2.2) should at all times restrict their maximum demand to the contract demand. In case the maximum demand in any month exceeds the contract demand, the said demand based tariff (LV-5.3/LV-4.2/LV- 2.2) shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so availed, in any month, shall be charged at the rate of one and half times of the normal tariff applicable to the consumer (fixed and energy charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand. For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:

- a) Billing Demand: The demand in excess of the contract demand in any month shall be the billing demand.

- b) Units of Energy: the units of energy corresponding to kW portion of the demand in excess of the contract demand shall be:-

$$EU = TU (1 - CD/MD)$$

Where

EU – denotes excess units;

TU – denotes total units supplied during the month;

CD – denotes contract demand, and

MD – denotes actual maximum demand.

- I. The excess supply availed in any month shall be charged along with the monthly bill and shall be payable accordingly.
- II. The above billing of excess supply at one and half times/ two times of the normal tariff shall be applicable to consumers without prejudice to CSPDCL's right to discontinue supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011.

9. Delayed Payment Surcharge

If the bill is not paid by the consumer within the period (due date) prescribed for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any, but excluding amount of surcharge), subject to minimum of Rs. 5 shall be payable in addition, from the due date of payment as mentioned in the bill.

10. Additional charges

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the local body receives supply.

11. Advance Payment Rebate

A rebate @ 0.5% per month will be payable on net amount of advance at the end of the billing cycle of that particular month, subject to the condition that the net amount of advance is not less than Rs. 500, and shall be adjustable in next month's bill.

12. Rounding off

The bill shall be rounded off to the nearest multiple of Rs.10. Difference, if any, between the bill amount before and after rounding off, shall be adjusted in next month's bill.

For example: - If the total amount of bill is Rs. 235.00, then the bill shall be rounded off to Rs. 240 and Rs. 5.00 will be credited in next month's bill, whereas if the total amount of bill is Rs. 234.95, then the bill will be rounded off to Rs. 230 and Rs. 4.95 will be debited in next month's bill. In view of the above provision, no surcharge will be levied on outstanding amount, which is less than Rs. 10.

13. Applicability of tariff

In case of any dispute about applicability of tariff to a particular LT category, the decision of the Commission shall be final and binding.

14. Tax or Duty

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

15. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of LT consumers except the consumers of domestic light and fan category. Domestic light and fan category consumer shall not be required to pay such charges.

16. Variable Cost Adjustment Charge

Variable Cost Adjustment charge as per the formula and conditions decided by the Commission, in Order dated 30th June 2012 in suo-motu Petition No. 26 of 2012, and its subsequent amendment/modification, if any, shall be levied in addition to energy charge on all the LV categories including temporary supply. However, from the date of applicability of this Order, the base values for computation of VCA for succeeding period shall be revised in accordance to this Order.

17. Conditions to have over-riding effect

All the above conditions of tariff shall be applicable to the consumer notwithstanding the provisions, if any, in the agreement entered into by the consumer with the Licensee.

9.2 TARIFF SCHEDULE FOR EXTRA HIGH TENSION (EHT) CONSUMERS

This tariff schedule is for consumers who avail supply at EHV i.e. at 400/220/132 kV.

9.2.1 EHV-1: Railway Traction

1. Applicability

This tariff is applicable to the Railways for traction loads only, availing two-phase supply.

2. Tariff:

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
EHV-1	350	4.25

3. Determination of Demand

The maximum demand of the supply in each month shall be four times the largest number of kilo Volt Ampere hours (kVAh) delivered at the point of supply during any consecutive 15 minutes in the month as per the sliding window principle of measurement of demand. Provided that if as a result of an emergency in the consumer's installation or in the transmission lines supplying energy to the said traction sub-station, extra load is availed by the consumer with prior intimation to the licensee, the period of such emergency shall not be taken into account for the purpose of working out the maximum demand.

Provided further that as a result of emergency in the traction sub-station (TSS) or in the transmission line supplying power, if the entire load of the TSS or part thereof is transferred to adjacent TSS, the maximum demand (MD) of the TSS, for the month shall

not be taken as less than the average MD recorded for the previous three months during which no emergency had occurred.

4. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.2.2 EHV-2: Heavy Industries and other Consumers

1. Applicability

- 1) This tariff is applicable to all types of industries including steel, mines, coal mines, cement industries, etc., with a Contract Demand of above 20 MVA for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory; and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.
- 2) This tariff is also applicable to all other EHV consumers upto contract demand of 20 MVA, which are not covered under any other EHV-1 and EHV-3 tariff category including coal mines, mines, cement industries, etc., for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory; and consumption for residential and general use therein including offices, stores, canteen, compound lighting, etc.

2. Tariff:

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
EHV-2	350	4.65

3. Determination of Demand

The maximum demand in each month shall be four times the largest number of kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes during the month as per sliding window principle of measurement of demand.

4. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.2.3 EHV-3: Steel Industries

1. Applicability

This tariff is applicable to steel industries having Contract Demand upto 20 MVA, i.e., for mini steel plants, rolling mills, sponge iron plants, ferro alloy units, steel casting units, iron ore pellet plant, iron beneficiation plant and combination thereof including wire drawing units with or without galvanizing unit; for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

2. Tariff:

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
EHV- 3	350	4.25

3. Determination of Demand

The maximum demand of the supply in each month shall be four times the largest number of Kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes in the month as per sliding window principle of measurement of demand.

4. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.3 TARIFF SCHEDULE FOR HIGH TENSION (HT) CONSUMERS

This tariff schedule is for consumers who avail supply at 33 or 11 kV.

9.3.1 HV-1 Steel Industries

1. Applicability

This tariff is applicable to steel industries, i.e., for mini steel plants, rolling mills, sponge iron plants, ferro alloy units, steel casting units, iron ore pellet plant, iron beneficiation plant and combination thereof including wire drawing units with or without galvanizing unit; for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory and consumption for residential and general use therein including offices, stores, canteen, compound lighting, etc.

2. Tariff:

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
HV-1.1: 11 kV & 33 kV	360	4.25

Optional Tariff

Option - 1

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
HV-1.2: 11 kV & 33 kV	225	4.70

Option - 2

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
HV-1.3: 11 kV & 33 kV	370	3.85

Note:

- I. The Option-1 and Option-2 may be opted by steel industry of this category for one year or till revision of next tariff, whichever is earlier.
- II. Consumer under this tariff (Option 2) shall bear minimum guaranteed payment of electricity bills for demand charges on contract demand and energy charges at 70% load factor on contracted demand and Power-on-hours on annualized basis or over the period upto next tariff order, whichever is earlier. However, monthly bills shall be raised on the basis of 70% load factor on contracted demand or on actual consumption basis, whichever is higher, till last but one month of the period and adjusted for minimum guarantee in the last month of period.
- III. Power-on- hours is defined as total hours in the billing period minus hours of load restriction enforced by CSPDCL/CSPTCL.

3. Determination of Demand

The maximum demand of the supply in each month shall be four times the largest number of Kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes in the month as per sliding window principle of measurement of demand.

4. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.3.2 HV-2 Mines, Cement, other Industries and General Purpose Non Industries:

1. Applicability

1. This tariff is applicable to the mines, coal mines, cement industries, and other industries not covered under categories HV-1 and HV-4 for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory and consumption for residential and general use therein including offices, stores, canteen yard lighting, etc.
2. This tariff is also applicable for supply to establishment such as Railways (other than traction), hospitals, offices, hotels, shopping malls, power supplied to outside of State (border villages), educational institutions, mixture and/or stone crushers and other institutions, etc., having mixed load or non-industrial and/or non-residential load. This tariff is also applicable to all other HT consumers not covered specifically in any other HV tariff category.

2. Tariff:

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
HV-2 11 kV & 33 kV	365	4.50

3. Determination of Demand

The maximum demand in each month shall be four times the largest number of kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes during the month as per sliding window principle of measurement of demand.

4. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.3.3 HV-3: Low Load Factor Industries

1. Applicability

This tariff is applicable to all such HT industries to whom tariff category HV-1 and HV-2 may apply but working in day time only, i.e., between 6:00 a.m. and 6:00 p.m., as an optional tariff; for power, lights, fans, etc., which shall mean and include all energy consumption in factory and consumption for residential and general use therein. This tariff will be applicable to a consumer who opts for it.

2. Tariff:

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
HV-3: 11 kV & 33 kV	225	4.70

3. Determination of Demand

The maximum demand of supply in each month shall be four times the largest number of kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes in the month as per sliding window principle of measurement of demand.

4. Conditions for low load factor industries

- i. This tariff is applicable to HT industries, which use power during daytime between 6:00 a.m. and 6:00 p.m. In case, they draw power beyond the time specified, the energy consumed shall be charged at one hundred and thirty percent (1.3 times) of the normal rate of energy charge applicable to the consumer.
 - ii. The supply availed beyond specified period in any month shall be charged along with the monthly bill and shall be payable by the consumer.
5. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.3.4 HV-4: Residential, Irrigation & Agriculture Allied Activities

1. Applicability

1. This tariff shall be applicable for bulk supply at one point to colonies, multi-storied residential buildings, townships, including townships of industries provided that connected load of non-domestic nature for common basic amenities and other general purpose load put together for the residents shall not be more than 10% of total connected load other than drinking water supply, sewage pumping and street light, and agriculture pump connections, irrigation pumps of lift irrigation schemes of State Government or its agencies/co-operative societies, including energy used for lighting pump house.
2. This tariff is also applicable to the consumer availing supply at HV for the purpose of pump/tube well connections, other equipment for tree plantation,

fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture and aquaculture laboratories and milk chilling plant and for power, lights, fans, coolers, etc. which shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc. and residential use therein.

2. Tariff:

Category of Consumers	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
HV-4: 11 kV & 33 kV	365	4.00

3. Determination of Demand

The maximum demand of supply in each month shall be two times the largest number of kilo Volt Ampere hours delivered at the point of supply during any consecutive 30 minutes in the month as per sliding window principle of measurement of demand.

- The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.3.5 HV-5: Public Water Works

1. Applicability

This tariff shall be applicable for public utility water supply schemes, sewerage treatment plants and sewage pumping installations run by P.H.E. Department, local bodies, Gram Panchayat or any organization made responsible by the Government to supply/maintain public water works/sewerage installation including energy used for lighting pump house.

2. Tariff:

Category of Consumers	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
HV-5: 11 kV & 33 kV	365	3.70

3. Determination of Demand

The maximum demand of supply in each month shall be two times the largest number of kilo Volt Ampere hours delivered at the point of supply during any consecutive 30 minutes in the month as per sliding window principle of measurement of demand.

4. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.3.6 HV-6: Start-Up Power Tariff

1. Applicability

The tariff shall be applicable to those consumers who avail supply for start-up power for their power plant (generating station and captive generating plant) at 400/220/132/33/11 kV.

2. Tariff:

Category of Consumers	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
HV-6	200	6.65

3. Determination of Demand

The maximum demand of supply in each month shall be four times the largest number of kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes during the month as per sliding window principle of measurement of demand.

4. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

5. Conditions for start-up power consumers

- i. Contract demand shall not exceed 10% of the highest capacity of generating unit of the generating station/captive generating plant
- ii. Captive generating plants which do not have any co-located industrial load and who use the grid for transmission and wheeling of electricity can avail start up-power tariff.
- iii. Captive generating plant who have co-located industrial load are also entitled for start-up power tariff

- iv. Drawal of power shall be restricted to within 10% of load factor based on the contract demand in each month. In case the load factor in a month is recorded beyond 10%, the demand charge shall be charged at double the normal rate. Supply can also be disconnected if the monthly load factor exceeds 10% in any two consecutive months. Load factor shall be computed from contract demand.
- v. Start-up power shall also be made available to the generator/captive generating plant connected to CTU grid with proper accounting.
- vi. This tariff shall also be applicable to generators before their commercial operation.
- vii. In case of generators who have not availed start-up connection but eventually draws power from the grid not more than 30 minutes at one occasion shall be billed @ Rs 11.50 per kWh, as per the average billing rate for this tariff category, which includes demand charge also. Drawal beyond 30 minutes shall be billed at @ Rs 23.00 per kWh.
- viii. In case of captive generating plant, which do not have any co-located industrial load and who use the grid for transmission and wheeling of electricity, such CGP's, if they have not availed start-up connection but eventually draws power from the grid not more than 30 minutes at one occasion shall be billed @ Rs. 11.50 per kWh, as per the average billing rate for this tariff category, which includes demand charge also. Drawal beyond 30 minutes shall be billed at @ Rs 23.00 per kWh.
- ix. In case of captive generating plant which have co-located industrial load and who have not availed start-up connection but eventually draws power from the grid not more than 30 minutes at one occasion shall be billed @ Rs. 11.50 per kWh it as per the average billing rate for this tariff, which includes demand charge also. Drawal beyond 30 minutes shall be billed at @ Rs 23.00 per kWh.
- x. The existing biomass-based generators are exempted from payment of demand charge for the first five years from the date of availing start-up connection i.e. they are required to pay energy charge only during first five years of availing start-up power and full start-up tariff from sixth year onwards. The new biomass-based generators who would come under operation during the MYT Control Period are exempted from payment of demand charge for the first five years from the date of commercial operation of their power plant, i.e., they will be required to pay energy charge only during first five years from COD and full start-up tariff

from sixth year onwards. However, in case during first five years from the date of its connection, if it's actual demand exceeds the contract demand, the billing for that month shall be as per other start-up power consumer exceeding contract demand. In case if the load factor is within 10% but actual demand exceeds the contract demand then also the billing for that month shall be as per other start-up power consumer exceeding contract demand. In case, it is established that the biomass based generator has used biomass in the lesser ratio than as mentioned in the guidelines of the Ministry of New and Renewable Energy during any financial year in first five years from the date of availing start up power tariff then demand charge as per this tariff category (HV-6) shall also become payable for the whole such financial year and such payable amount will be billed in three equal instalments after such happening comes in the notice of the CSPDCL.

9.3.7 HV-7: Industries related to manufacturing of equipment for power generation from renewable energy sources

1. Applicability

This tariff is applicable to consumers availing supply at 220/132/33/11 kV for manufacturing of plant, machinery and equipment used for generation of power from renewable sources of energy including for the manufacturing of hydel turbine, generator and related auxiliaries needed for small hydel plants up to 25 MW but excluding manufacturing of boilers, turbines, generators, and the related auxiliaries which otherwise can be used for generation of power from conventional source of energy. This tariff shall also not be applicable for manufacturing of such common machines/equipment/and other items such as electrical motors, structural items, nuts bolts, etc. which can be used for other purposes also.

2. Tariff:

Category of Consumers	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
HV-7	365	4.45

3. Determination of Demand

The maximum demand of supply in each month shall be four times the largest number of kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes during the month as per sliding window principle of measurement of demand.

4. The conditions of power factor incentive/penalty shall not be applicable as the energy charges are billed on kVAh.

9.3.8 HV-8 Information Technology Industries

1. Applicability

This tariff is applicable to Information Technology Industries having minimum contract demand of 50 kW.

2. Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kVAh)	Minimum Charge
HV-8: Information Technology Industries	Nil	4.85	Rs. 3000/-per month

Note:

Minimum Charge is monthly minimum charge whether any energy is consumed during the month or not.

9.4 TEMPORARY CONNECTION AT EHV AND HV

1. Applicability

This tariff is applicable to all EHV and HV connections (other than the consumers availing Start up power Tariff (HV-6), of temporary nature at 220/132/33/11 kV.

Temporary supply cannot be demanded by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made subject to technical feasibility.

2. Tariff:

One and half times of the normal Tariff applicable for the corresponding category of consumer for demand and energy charge.

Notes

- i. An amount equal to estimated bill for 3 months or for the period requisitioned, whichever is less; shall be payable in advance before the temporary connection is served subject to replenishment from time to time and adjustment in the last bill after disconnection.

- ii. If maximum demand is found more than the contract demand in any billing month, the billing shall be done at one and half times/two times of the energy charges and Demand charges as applicable, in case of exceeding contract demand in permanent connection, and shall be calculated as per clause 10 of terms & conditions of EHV and HV tariff.
- iii. Any expenditure made by CSPDCL up to the point of supply for giving temporary connection shall be payable by the consumer as per prescribed procedure.
- iv. Connection and disconnection charges shall be paid separately.
- v. No rebates/concessions under any head shall be applicable to temporary connections.
- vi. Month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or for part thereof.
- vii. Other terms and conditions of the relevant category of tariff shall also be applicable.
- viii. Surcharge at 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

9.5 TIME OF DAY TARIFF

This tariff is applicable to EHV and HV categories. Under the Time of Day (TOD) Tariff, electricity consumption in respect of EHV and HV industries 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. Consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer:

Period of Use	Normal rate of Demand Charge Plus
(i) Normal period (5:00 a.m. to 6:00 p.m.)	Normal rate of Energy Charges
(ii) Evening peak load period (6:00 p.m. to 11:00 p.m.)	130% of normal rate of Energy Charge
(iii) Off-peak load period (11:00 p.m. to 5:00 am of next day)	85 % of normal rate of Energy Charge

Applicability and Terms and Conditions of TOD tariff:

- i. TOD tariff is applicable to all EHV and HV categories covered in EHV-2, EHV-3, HV-1 including optional tariff, HV-2 and HV-7 categories.
- ii. The terms and conditions of the applicable tariff (such as monthly tariff minimum charge, etc.) shall continue to apply to a consumer to whom TOD tariff is applicable.
- iii. In case, the consumer exceeds the contract demand, the demand in excess and the corresponding energy shall be billed at one and half/two times (as per methodology specified in Para “Additional Charges for Exceeding Contract Demand” of the Terms and Conditions of EHV and HV Tariff) of the normal tariff applicable for the day time (i.e., 5.00 a.m. to 6.00 p.m.) irrespective of the time of use.

9.6 TERMS AND CONDITIONS OF EHV AND HV TARIFF

1. The maximum and minimum contract demand for different supply voltage is governed as per provisions of the Chhattisgarh State Electricity Supply Code, 2011. Presently, the minimum and maximum permissible load at respective supply voltage are as below:

Supply Voltage	Minimum	Maximum
11 kV	60 kVA	500 kVA
33 kV	60 kVA	15 MVA
132 kV	4 MVA	40 MVA
220 kV	15 MVA	150 MVA

Deviation in contract demand, if any, in respect of the above provisions on account of technical reasons, may be permitted with the approval of the Commission and billing shall be done accordingly. The EHV/HV consumers having contract demand exceeding the maximum limit mentioned above for respective voltage of supply shall be liable to pay additional charges at the rate of 5% on energy charges of respective consumer category as specified in Clause 10 of terms and conditions of EHV and HV tariff.

2. Point of Supply

Power will be supplied to consumers ordinarily at a single point for the entire premises. In certain categories like coal mines, power may be supplied at more than one point on the request of consumer subject to technical feasibility. HV industrial consumers can avail separate LT supply as per Clause 4.40 of the Chhattisgarh State Electricity Supply Code, 2011 in the same premises.

3. Billing demand

The billing demand for the month shall be the maximum demand (in kVA) of the consumer recorded during the billing month or 75% of the contract demand or 60 kVA, whichever is higher, except for the consumers who have reduced their contract demand to zero. The billing demand shall be rounded off to the next whole number.

4. Minimum Charge

The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

5. Rounding off

The amount of EHV and HV energy bill shall be rounded off to the nearest multiple of Rs.10.

For example - the amount of Rs. 12345 will be rounded off to Rs. 12350 and Rs. 12344.95 shall be rounded off to Rs. 12340.

In view of the above provision no surcharge will be leviable on outstanding amount, which is less than Rs. 10.

6. Delayed Payment Surcharge

If the bill is not paid by the consumer within the period prescribed (due date) for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any but excluding amount of surcharge), shall be payable in addition, from the due date of payment as mentioned in the bill.

7. Additional charges for Local Bodies

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities

Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the Local Body receives supply.

8. Advance Payment Rebate

A rebate @ 0.5% per month will be payable on net amount of advance at the end of the billing cycle of that particular month, subject to the net amount of advance being not less than Rs.20,000, and shall be adjustable in next month's bill.

9. Additional Charge for Exceeding Contract Demand

The consumers should restrict their maximum demand to the extent of contract demand. In case the maximum demand during any month exceeds the contract demand, the foregoing tariffs shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so availed, if any, in any month shall be charged at one and half times of the normal tariff applicable to the consumer (demand and energy charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand.

For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:-

i. Billing Demand / Contract Demand:

The demand in excess of the contract demand in any month shall be the billing demand/ contract demand of the excess supply.

ii. Units Energy:

The units of energy corresponding to kVAs of the portion of the demand in excess of the contract demand shall be:

$$EU = TU (1 - CD/MD)$$

Where

EU - denotes units corresponding to excess supply;

TU - denotes total units supplied during the month;

CD - denotes contract demand; and

MD - denotes maximum demand.

The excess supply availed in any month shall be charged along with the monthly bill and shall be payable by the consumer.

The billing of excess supply at one and half times/two times of the normal tariff applicable to consumer is without prejudice to CSPDCL's right to discontinue the supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011.

- iii. No rebates/incentive is payable on such excess supply.

10. Additional Charge

The EHV/HV consumers having contract demand exceeding the maximum limit as prescribed in Clause 1 of terms and conditions of EHV & HV tariff with the approval of competent authority shall be levied additional charges at the rate of 5% on energy charges of the respective consumer category.

11. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of EHV and HV consumers.

12. Tax or Duty

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law/State Government Rules in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

13. Variable Cost Adjustment charge

Variable Cost Adjustment charge as per the formula and conditions decided by the Commission in order dated 30th June 2012 in suo-motu Petition No. 26 of 2012 and its subsequent amendment/modification from time to time shall be levied in addition to energy charge on all the EHV and HV categories.

14. Dispute on applicability of tariff

In case of any dispute on applicability of tariff on a particular category of HV/EHV industry/ consumer, the decision of the Commission shall be final and binding.

Notwithstanding the provisions, if any, contrary to the agreement entered into by the consumer with the CSPDCL, all conditions prescribed herein shall be applicable to the consumer.

15. Parallel Operation Charges (POC)

Parallel operation charges shall be payable by CPP to CSPDCL for its captive and non-captive load at the rate Rs.21per kVA/Month.

16. Open Access Charges

a) Transmission Charges

The long-term and medium-term open access customers including CSPDCL shall be required to pay the annual transmission charges approved by the Commission. Bills shall be raised for transmission charge on monthly basis by the STU (CSPTCL), and payments shall be made by the beneficiaries and long-term and medium-term open access customers directly to the CSPTCL. These monthly charges shall be shared by the long-term open access customers and medium-term open access customers as per allotted capacity proportionately. The monthly transmission charge is Rs. 69.58 Crore.

For short-term open access customer: Rs. 284/MWh (or Rs. 0.284 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% load factor for transmission. The same charges shall be applicable for both collective and bilateral transaction at the point or points of injection.

b) Energy losses for transmission

Transmission losses at the rate of 4.20% for the energy scheduled for transmission at the point or points of injection shall be recoverable from open access customers.

c) Wheeling Charges

For long-term, medium-term and short-term open access customer: Rs. 244/MWh (or Rs. 0.244 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% load factor for wheeling. The same charges shall be applicable for both collective and bilateral transaction at the point of injection.

d) Energy losses for distribution

Distribution losses at the rate of 6 % for the energy scheduled for distribution at the point or points of injection at 33 kV side of 33/11 kV sub-station.

e) Operating Charges

The short-term open access customer shall pay the operation charges to SLDC at the rates Rs. 2000 per day.

f) Reactive Energy Charges

Reactive energy charges shall be levied at the rate of 27 paisa/kVARh

g) Cross Subsidy Surcharge

- i. For EHT consumers Rs. 0.89 per kWh (which is 90% of the computed value of Rs. 0.99 per kWh).
- ii. For HT consumers Rs. 1.18 per kWh (which is 90% of the computed value of Rs. 1.31 per kWh).

h) Standby charges

The standby charges for consumers availing open access (using transmission and/or distribution system of Licensee) and who draws power from the grid up to the contracted capacity of open access during the outage of generating plant/CPP shall be 1.5 times of the per kWh weighted average tariff of HT and EHT consumers, which is Rs 8.97 per kWh (1.5 times of the average billing rate of Rs.5.98 per kWh). For drawal of power in excess of the contracted capacity of open access, the tariff for availing stand by support from the grid shall be two times of the per unit weighted average tariff of HT and EHT consumers which is Rs 11.96 per kWh (2 times of the average billing rate of Rs. 5.98 per kWh). Further, in case of outage of CPP supplying power to captive/non captive consumer who has reduced its contract demand to zero and also availed open access draws power of CSPDCL the billing of such power drawn shall be done as per the standby charges mentioned above.

Note: The settlement of energy at drawal point in respect of consumers availing open access and when the generator is on outage shall be governed by (intra-State ABT, UI charge and related matters) Regulations to be notified by the Commission and as amended from time to time. Till that time provisions of this order in the matter shall prevail

17. Provisions for renewable energy based power generating plant located in the State and supplying power to consumers (located in the State) through open access.

The charges related to transmission and wheeling shall be 6 % of the energy input into the system for the consumer using State grid for procuring power from renewable energy based power generating stations located in the State. Other than these charges, they shall not be required to pay any transmission charges or wheeling charges either in cash or kind.

For open access consumers procuring power from renewable energy based power generating plant, the cross subsidy surcharge payable shall be 50% of the cross subsidy surcharge determined for that year.

- i. For EHT consumers Rs 0.50 per kWh (which is 50% of the computed value of Rs 0.99 per kWh).
- ii. For HT consumers Rs. 0.66 per kWh (which is 50% of the computed value of Rs 1.31 per kWh).

In case of open access consumer drawing power from biomass based power generating plants, if it is established that the biomass based power generating plants supplying power to such open access consumer has used biomass in the lesser ratio than as mentioned in the guidelines of the Ministry of New and Renewable Energy during any financial year, then the relaxations at (i) and (ii) above given to the open access consumer shall be treated as withdrawn for that financial year and the biomass generator shall be liable to pay to CSPDCL full open access charges.

10. DIRECTIVES TO THE STATE POWER COMPANIES AND SLDC

The State power companies in their ARR and tariff filings have not provided adequate and responsive details regarding the status of compliance to the Commission's directives issued in previous tariff orders. It was expected that the State power companies would take prompt action on the directives and monitor their implementation. It is painful to mention that although action was initiated on most of the directives, these were not pursued with the seriousness and sincerity that was required at their end. The State power companies are once again directed to comply with the directives issued in this Tariff Order timely and submit information's regarding implementation of the same.

10.1 COMPLIANCE OF DIRECTIVES ISSUED IN PREVIOUS TARIFF ORDERS

10.1.1 Directives to Holding Company (CSPHCL)

1. Terminal Benefits for employees appointed after 01.04.2004

The three successor companies (CSPGCL, CSPTCL & CSPDCL) were directed to submit comprehensive report on the matter related to terminal benefits of employees and officers appointed after 01.04.2004, who are not covered by P&G trust, within three months.

The report on terminal benefits of employees and officers appointed after 01.04.2004 has been submitted by CSPHCL .As per report submitted by power companies, the pending issues under implementation of New Pension Scheme for employees/officers who have joined after 01.04.2004 has been reviewed and present status on action taken for resolving these issues are submitted as under:-

- I. All regular employees/officers covered under NPS have been got registered by concerned power companies with NSDL.
- II. The monthly amount deducted from salary of employees/officers towards NPS along with equal contribution by company was earlier being remitted to GPF Trust. This practice has now been discontinued and the deduction made from salary for the month of Aug. 14 & onwards along with equal contribution by company is being remitted to Fund manger nominated by PFRDA. The employee

wise balance of NPS fund parked under GPF Trust has been reconciled and transferred to PFRDA in the month of Nov. 2014. The statement showing fund value has also been made available to each employee for their information.

10.1.2 Directives to Generation Company (CSPGCL)

1. Implementation of Capital Investment Plan of KTPS

In Tariff order for FY 2014-15 the Commission had directed that capital investment and additional capital investment approved by the Commission for KTPS plants i.e. 50 MW and 120 MW shall be withheld with immediate effect and in case of any exigencies, prior approval of any investment should be sought from the Commission.

The CSPGCL submitted that in compliance to the directive of Commission the site authorities have been instructed to put on hold the capital investment schemes approved for KTPS plants i.e. 50 MW and 120 MW. CSPGCL submitted present status of various such ongoing works & has requested to allow continuation of some of the works. It is further highlighted that as per guidelines contained in CEA letter dated 06.05.2014 only retirement of 50 MW units has been taken. Therefore units of 120 MW are to remain in operation. CSPGCL requested to allow implementation of approved capital investment plan pertaining to 120 MW units.

The CEA has advised to retire units of 50 MW capacity only. Presently 50 MW units and also 120 MW units of CSPGCL are under operations and catering power requirement of CSPDCL. The request of CSPGCL requires consideration and CSPGCL may be permitted to implement the already approved capital investments plan of 120 MW sets after due deliberations. CSPGCL should submit the details of CIP of 120 MW units and status in this regard within a month. For carrying out capital investments for 50 MW units, prior approval of the Commission should be taken.

2. Interruptions in Power plants

CSPGCL was directed in previous tariff order to minimise frequent interruptions in the power plants and abnormal delay in restoration of the plants. It was also directed to carry out proper maintenance during the annual maintenance. CSPGCL was also directed to propose estimated time for restoration of such failure to CSPDCL. It was further directed that if reduction in plant outages as compared to previous years is not observed then expenses made on annual maintenance of that plants may be disallowed.

CSPGCL submitted that all possible efforts are being made to minimize the power plant interruption & restoration time by proper maintenance & operations and intimated that CSPGCL is not getting adequate regular payments from CSPDCL against their energy bills. Dues against the energy bills have reached to Rs. 1200 Crore (approx.) as on 30.09.2014. As far as reduction in plant outages as compared to previous years and disallowances thereof, CSPGCL requested that as per provisions of the MYT Regulations 2012, CSPGCL has to comply certain norms of the operations and deviation to the same is settled through the mechanism of gains & losses given in the Regulations.

CSERC MYT Regulations, 2012 is performance based Regulations and non-adherence to norms specified in Regulations could result in under recovery of fixed charges. CSPGCL should endeavour to minimise interruptions and non-achievement of norms specified in MYT Regulations shall be dealt according to the provisions of the Regulations.

3. Energy audit of the generating stations

CSPGCL was directed to take up the energy audit of generating stations as a regular exercise. CSPGCL was directed to submit the plan for compliance of the directions within two months otherwise action according to the provisions of EA, 2003 will be initiated against them.

CSPGCL submitted that as per Bureau of Energy Efficiency (Manner and Intervals of Time for Conduct of Energy Audit) Regulations 2010, first energy audit of all the three thermal plants was conducted within 18 months of the effective date. Next energy audit of DSPM TPS and HTPS has already been conducted, for KTPS the tender has been opened, and energy audit is expected shortly. The next energy audit for the power stations will become due in 2017 and to ensure timely audit, action for the same is proposed to be initiated well in advance

The Commission has taken note of the CSPGCL's submission.

4. Mock Billing

The commission had directed that CSPGCL and SLDC are jointly required to submit the plan for compliance of directive on mock billing within two months otherwise action according to the provisions of EA, 2003 will be initiated.

CSPGCL submitted that a meeting was held on September 1, 2014 at the office of ED (O&M: Gen.), and the Action Plan for Mock Billing has been agreed by the

representatives of SLDC and CSPGCL. Further, from the month of October 2014, even the actual billing has been started as per directions.

The Commission has taken note.

10.1.3 Directives to Transmission Company (CSPTCL)

1. Non-firm Power

In previous tariff order, SLDC was directed to discourage poor quality and non-firm power injection, by some generators and take appropriate actions. Further CSPDCL was directed to avoid purchase of power from such suppliers. SLDC was directed to take appropriate actions.

No specific report has been submitted by the company.

It has been observed that cases of under-injection and non-compliance of directions of SLDC has been filed by SLDC and the matter is sub-judice.

2. State Energy Account

SLDC was directed to submit State Energy Account to the Commission on quarterly basis and a copy of the same to CSPDCL.

State energy account for the period April 2014 to September 2014 has been submitted to the Commission.

Despite specific direction, SLDC has failed to submit SEA to the Commission timely. SLDC is again directed to submit such quarterly report positively by 15th August 2015 for first quarter of FY 2015-16, 15th November 2015 for second quarter and so on. In this regard, a new format covering all details may be prepared and got approved by the commission.

3. Joint Meter reading at EHV substations

CSPDCL and CSPTCL were directed to submit the details for compliance of direction within two months otherwise action according to the provisions of EA, 2003 will be initiated against both the companies.

400 kV, 220 kV, 132 kV, 33 kV Bus loss statement in respect of transmission system for FY 2012-13 and FY 2013-14 have been submitted.

The Commission has taken note.

4. Bus losses of EHV substations

In spite of earlier directive, CSPTCL has not reported the bus losses of EHV substations.

Statement as desired has been submitted up to the period of March 2014.

The directions are reiterated and consolidated bus loss statement should be submitted timely and properly.

5. Assets not in use

CSPTCL was directed to submit month wise details of double circuit line used for exchange of power for the FY 2013-14 and was asked to clarify that whether this line will also be used for exchange of power for similar transactions in FY 2014-15 and onwards. CSPTCL/CSPDCL were also advised that the concessional power purchased from M/s JPL should be routed through this line only.

CSPTCL submitted that the line is being used for transaction of power between CSPDCL and M/s JPL as per the terms and conditions of the PPA signed between them.

The Commission has taken note.

10.1.4 Directives to Distribution Company (CSPDCL)

1. Study Regarding Voltage-wise cost of supply

CSPDCL was directed to prioritize the study regarding voltage-wise cost of supply.

In reply to this CSPDCL submitted that tendering process towards appointment of consultant to carry-out the study work is under progress.

As per provisions of the Act, the Commission is mandated to determine wheeling charges and retail supply tariff. It has also been mandated to ensure that the tariff progressively reflects the cost of supply and cross subsidy is reduced within a specific period. In view of spirit of the Act, CSPDCL is again directed to complete the study and submit the report within a 6 months period.

2. Wheeling loss

CSPDCL was directed to prioritize the study pertaining to wheeling business.

CSPDCL submitted that tendering process towards appointment of consultant to carry-out the study work is under progress.

As per provisions of the Act, the Commission is mandated to determine wheeling charges. The licensee should ensure timely completion of study and appraise the stage wise progress in this regard.

3. Allocation matrix for the cost of supply

CSPDCL was directed to expedite the submission of the report regarding allocation matrix for the cost of supply.

Allocation matrix for wire & retail business has been submitted by the company along with Tariff petition.

It is observed that report submitted by CSPDCL is inadequate hence Commission directs to submit detailed report.

4. State Energy Account

CSPDCL was directed to reconcile the power purchase bills according to SEA and submit reconciliation report on quarterly basis.

CSPDCL submitted that power purchase bill has been reconciled for the period up to the state energy account made available by SLDC.

The earlier directions are reiterated.

5. True up of ARR for CGS

CSPDCL was directed to take up the matter of true up of ARR of Central Generating Stations at appropriate forum in order to safeguard the interest of consumers of the State.

CSPDCL submitted that some issue pertaining to true up exercise of Vindhyachal Super thermal power station-III has been raised before CERC, New Delhi and the matter is still pending.

CSPDCL is directed to follow up the case and apprise the Commission.

6. Bus losses of EHV substations

The Commission had redirected CSPDCL to submit the details of bus loss within two months otherwise action under the provisions of the EA, 2003 will be initiated against him.

The directive pertains to CSPTCL.

7. Distribution losses

The Commission had noted abnormally high distribution losses in some of the O&M circles. CSPDCL was directed to reduce losses in some of the circles up to 31st March 2015. It was also directed to submit a report on quarterly basis along with the responsibility fixed on the officers/employee for non-compliance of directives. The details of achievement Submitted by the CSPDCL against Commission's target is as under:

Table 10.1-1: Circle –wise Distribution Loss

Sr. No.	Name of Circle	Distribution losses as reported in FY 2013-14	Target distribution losses reduction up to 31 st March 2015	Achievement During 14-15 up to March 2015
1.	Mahasamund	37.66%	5%	37.01%
2.	Janjgir-Champa	49.26%	10%	49.40%
3.	Raigarh	40.92%	10%	35.69%
4.	Bilaspur O&M	40.44%	10%	42.55%
5.	Korba O&M	35.88%	5%	33.99%
6.	Ambikapur	40.79%	10%	40.52%

It is noted with concern that the CSPDCL could not achieve the target set by the Commission. The CSPDCL even misinterpreted the directive of the Commission and fixed a target accordingly. The loss reduction is one of the major performance parameters stipulated by the Commission. The Commission since its inception has repeatedly being giving directions for reducing losses after carrying out proper loss studies at different level. The data submitted by CSPDCL shows increase in loss in the circles selected by the Commission and has defeated the very purpose of the Commission's directive. The Commission views it very seriously.

CSPDCL is therefore directed to fix-up responsibility on the concerned and intimate the same to the Commission for initiating suitable actions against them. It is also directed to prepare a trajectory for loss reduction programme in O&M circle Mahasamud & O&M

circle Bilaspur and a detailed action plan for reduction in losses for the FY 2015-2016 be submitted to the Commission within one month from the date of this order.

8. Benefits of BPL consumers

State Government has directed that BPL consumers who are consuming more than 100 units in a month shall not be allowed to avail the benefits of BPL consumer thereafter. They shall be converted into normal domestic connection.

CSPDCL submitted that the State Government vide Order No. 1846/ F-21/09/2014/13/2 dated 20-08-2014 has changed the criteria of consumption towards the eligibility for benefit of BPL consumers. Now the eligibility will be considered on the basis of yearly consumption in place of monthly consumption. Accordingly, for the FY 2014-15 after consumption of 900 units and in subsequent year after consumption of 1200 units, the BPL consumer may be converted to DLF consumers.

This issue pertains to the State Government.

9. Arrears

CSPDCL was directed to reduce 50% revenue arrears pending as on 31st March 2014 against LT and HT consumers by 31st March 2015 and quarterly progress on action taken be presented before the Commission.

CSPDCL submitted that the concerned field officers were directed to make necessary effort to reduce pending arrear as directed and submitted the status of LT and HT arrears as on March 2015 as below.

Table 10.1-2: Circle –wise LT & HT Arrears

(Rs. in Crore)			
S.No.	Name of Circle	March 2014 as per Final R-15	March 2015 as per Provisional R-15
1	RAIPUR CITY CIRCLE-I	25.03	20.00
2	RAIPUR CITY CIRCLE-II	351	363.16
3	RAIPUR O & M CIRCLE	244.62	305.81
4	MAHASAMUND O & M CIRCLE	18.14	22.24
5	DURG O&M CIRCLE	8.64	4.56
6	DURG CITY CIRCLE	321.09	365.8
7	RAJNANDGAON REGION	19.37	20.7
8	JAGDALPUR O&M CIRCLE	1514.11	1666.57

S.No.	Name of Circle	March 2014 as per Final R-15	March 2015 as per Provisional R-15
9	KANKER O&M CIRCLE	5.31	3.35
10	BILASPUR CITY CIRCLE	27.58	27.62
11	BILASPUR O&M CIRCLE	34.87	38.21
12	JANJGIR O&M CIRCLE	59.39	70.45
13	KORBA O&M CIRCLE	47.04	61.14
14	RAIGARH O&M CIRCLE	209.18	209.06
15	AMBIKAPUR REGION	78.11	86.61
	STATE TOTAL	2963.48	3265.28

The performance of licensee in this regard is not satisfactory. CSPDCL is redirected to intimate the reason of non-achieving the target and take measures to improve the performance during the FY 2015-2016. The licensee shall submit quarterly report of the progress.

10. Concessional power

CSPTCL/CSPDCL were advised by the Commission that the concessional power purchased from M/s JPL be routed through Raigarh-Tamnar 220 KV Double Circuit Line only. If not, then inter-state transmission charges will not be allowed. CSPDCL was also directed to monitor the concessional power on monthly basis and if lesser power than agreed is supplied by the generator, appropriate action should be taken by the CSPDCL against M/s JPL.

CSPDCL submitted that review on this direction has already been issued.

The Commission does not find any need to revisit the directive.

11. Reactive energy charges

The Commission had directed to present quarterly progress of the Reactive energy charges study to the Commission.

CSPDCL submitted that M/s. ABPS Infrastructure Ltd., Mumbai has been appointed as Consultant to study of reactive energy charges and the study work is under progress.

It is directed to submit the study report to the Commission at the earliest.

12. Surplus power

The Commission had directed the surplus power should not be sold less than Rs. 3.65/ kWh and if buyer is not available at the above rate of Rs. 3.65/ kWh then backing down of plant should be ensured as per merit order dispatch.

CSPDCL has submitted that they had already filed a review petition in which this issue was raised and matter has been disposed of.

13. KVAh billing

The Commission had directed the petitioner to submit a detailed report on the likely impact of introduction of kVAh billing on all other HV consumers with the next tariff petition to enable the Commission to take its views.

Commission has introduced kVAh billing to HV consumers in this Tariff order for FY 2015-2016.

14. Supplementary demands

The Commission noted that in many cases a supplementary demand is not supported by the details as stipulated in the Supply Code. It is further observed that the supplementary demand is not added to the regular electricity bills as per the provisions of the Supply Code leading to pending recovery against the connected consumers of the CSPDCL. In this regard the Commission had directed to identify such cases and pending recovery should be ensured or the connection should be disconnected. The CSPDCL was also directed to submit the action taken report to the Commission on quarterly basis and responsibility may also be fixed against the officers/employee for non-compliance of directives.

CSPDCL submitted that it has directed the concerned field officers to raise supplementary demand with all supporting details and also to add in regular electricity bill from next month and to ensure immediate disconnection of such connections in case of non payment of bill.

CSPDCL informed that they have issued suitable instructions to the field officers for compliance. However, whether the same are being implemented or not is not incorporated in their reply. CSPDCL should furnish compliance with authentic data to substantiate their submission made.

10.2 NEW DIRECTIVES

10.2.1 Directives to CSPGCL

1. Fuel cost adjustment charge

The detailed quarterly report of fuel cost adjustment charge be submitted to the Commission and also be made available to the Members of State Advisory Committee. The same should be uploaded on their website.

10.2.2 Directives to CSPTCL

- 1.** The Commission directs CSPTCL to ensure that HT and EHT connections are released timely as per provisions of the supply code. For this purpose, CSPTCL should coordinate with CSPDCL and submit quarterly report to the Commission.
- 2.** The Commission directs CSPTCL to submit quarterly report on the progress of implementation of approved CIP.
- 3. Directive related to Financial book**

CSPTCL is directed to maintain its financial books in a way that it reflects the expenses and revenue related to heads defined in tariff regulations and/or any other applicable regulations. For example, Revenue of CSPTCL should reflect the bills raised to CSPDCL against LTOA, MTOA and STOA charges. Bills raised to other open access consumers against LTOA, MTOA and STOA charges. Delay payment Surcharge billed to CSPDCL and other open access customers (if any) should be indicated separately.

10.2.3 Directives to CSPDCL

1. AT&C losses

Looking to the investments being made in loss reduction schemes particularly HVDS in rural area and R-APDRP part-B in the urban area, the Commission expects that there should be substantial reduction in AT&C losses. CSPDCL is directed to submit details of circle-wise AT&C losses as on 31/03/2015 by 15th of July 2015 in the prescribed format. Similar intimation to the remaining quarter for FY 2015-2016 also be submitted accordingly.

2. Delay in releasing HT connections:

The CSPDCL is directed to ensure that the HT connection are served as per the time limit prescribed in supply code and to furnish a quarterly report on pendency of HT connections as well as the load enhancement cases with reasons for their pendency.

3. Reactive energy management

The Commission feels that technical losses can be reduced by minimizing the reactive energy flow in the distribution network. CSPDCL should carry out study of active and reactive energy flow in the entire 11 KV feeders originating from 33/11 KV substations. Based on the pattern of active and reactive energy flow, suitable reactive power compensation system be designed and installed at the 33/11 KV substations to reduce the flow of reactive energy thereby reduction in technical losses & improvement on voltage profile.

4. Demand side management

In the daily load variation curve of the State, it is observed that there is considerable peak power demand in the evening time. CSPDCL is directed to take initiative to reduce the evening peak by implementing suitable energy conservation and demand side management measures. Action taken/achievement in this regard to be intimated to the Commission by the CSPDCL time to time.

5. Directive related to Financial book

CSPDCL is directed to maintain its financial books in a way that it reflects the expenses and revenue related to heads defined in tariff regulations and/or any other applicable regulations.

CSPDCL should maintain the accounts in such a way that it should reflect the UI charges for over-drawal and under-drawal from regional pool separately. Similarly for state UI pool, the UI charges for over injection, under injection, over-drawal and under-drawal shall be shown separately. Amount billed against cross subsidies surcharge, parallel operation charges, wheeling charges, reactive energy charges, VCA charges and revenue from trading of electricity be reflected in books of accounts. The volume of energy on the above heads shall also be indicated.

11. ANNEXURE – 1: LIST OF PERSONS WHO FILED WRITTEN SUBMISSIONS

Sr. No.	Name and Address of Objectors
1	Shri Vijay Kedia, D. L. Kedia and Company, Akaltara (C.G.)
2	Rice Millers Association, Akaltara, Dist. Janngir-Champa (C.G.)
3	Shri Mahendra Mukim President – Udyog Chamber, Chhattisgarh Chamber of Commerce & Industries, Raipur (C.G.)
4	Rice Millers Association, Akaltara, Dist. Janngir-Champa (C.G.)
5	Shri J. P. Agrawal, Shakti Ward, Bhatapara (C.G.)
6	Swami Vivekananda Airport, Raipur (CG)
7	Shri Yogesh Partaity, Dy. Chief Electrical Engineer (TRD) S.E.C.R., Bilaspur (C.G.)
8	Shri Anil Pateria (President) Chhattisgarh Federation of Industries, 8-B, Industrial Estate, Bhanpuri, Raipur (C.G.)
9	Shri Rajendra Yadava, Shri Vivek Tiwari, Shri S. K. Mishra & Others – Raipur (C.G.)
10	Shri I. K. Verma (President) Chhattisgarh Pragatishil Kisan Sangathan, Kanhaiyapuri, Kasaridih, Dist. Durg (C.G.)
11	Shri Rajkumar Gupt (Advt.) Kanhaiyapuri, Kasaridih, Durg (C.G.)
12	Shri Sunil Kumar Jain (President) Urla Industries Association, Urla Industries Complex, Urla Raipur (C.G.)
13	Chhattisgarh Udyog Mahasangh, Punjabi Colony, Katora Talab, Raipur (C.G.)
14	Zila Udyog Sangh, Surajpur
15	Shri D. B. Singh, M/s Idea Cellular Ltd., 139-140 Electronics Complex, Pardesipura, Indore (M.P.)
16	Shri Ashok Surana (President) Chhattisgarh Mini Steel Plant Association
17	Chhattisgarh Ferro Alloys Producers Association, Urla Industrial Area, Raipur (C.G.)
18	Shri Vijay Bothara (President) Chhattisgarh Steel Re-Rollers Association, 1st Floor, Sona Tower Ramsagarpara, Raipur (C.G.)
19	Chhattisgarh Strips & Pipe Manufacturer's Association, Village Sarora, Urla Industrial Area, Raipur (C.G.)
20	Urla Industries Association, Urla Industrial Complex, Urla, Raipur (CG)
21	Shri Imran Pasha (President) Azadi Ka Antim Andolan, MIG-D 27, Shailendra Nagar, Raipur (C.G.)
22	Shri Krishna Kumar Agrawal (President) Chhattisgarh Steel Chamber, Samta Colony, Raipur (C.G.)
23	Shri Bajrang Power & Ispat Ltd., Urla Raipur (C.G.)
24	Shri P. K. Khare, President, Chhattisgarh Rajya Vidyut Mandal, Abhiyanta Sangh

12. ANNEXURE – 2: LIST OF PERSONS WHO PRESENTED THEIR VIEWS DURING HEARING ON 10TH APRIL 2015.

Sr. No.	Name of Person
1	Shri Sanjay Parate
2	Shri Dharmraj Mahapatra
3	Shri Vikas Tiwari
4	Shri Pradeep Gabhane
5	Shri Imran Pasha
6	Shri Rajkumar Gupt
7	Shri Raza Ahemad
8	Shri I.K.Verma
9	Shri Arun Kumar Thakur
10	Shri Ashok Tamrakar
11	Shri Pramod Dubey (Mayor, Raipur)
12	Smt. Kiranmayee Nayak
13	Shri Shyam Kabra
14	Shri Arun Choubey
15	Shri Mahesh Kakkar
16	Shri Ashok Surana
17	Shri Vijay Gotra
18	Shri P. N. Khandelwal
19	Shri Vinod Kejriwal