Order on APR and Tariff Petitions for the year 2012-13

of

Chhattisgarh State Power Generation Co. Ltd.
[Petition No. 09/2012(T)]

Chhattisgarh State Power Transmission Co. Ltd.
[Petition No. 05/2012(T)]

Chhattisgarh State Power Distribution Co. Ltd.
[Petition No. 61/2011(T)]

State Load Dispatch Centre
[Petition No. 03/2012(T)]

CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
28th April, 2012

CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION RAIPUR

Petition No. 09 of 2012(T)

Petition No. 05 of 2012(T)

Petition No. 03 of 2012(T)

Petition No. 61 of 2011(T)

Present: Manoj Dey, Chairman
V.K. Shrivastava, Member

In the matter of –

(1) Approval of provisional true up for FY 2010-11, Annual Performance Review for FY 2011-12, for revision of Annual Revenue Requirement and Tariff resetting for FY 2012-13 for Chhattisgarh State Power Generation Co. Ltd.

(2) Approval of provisional true up for FY 2010-11, Annual Performance Review for FY 2011-12, revision of Annual Revenue Requirement and determination of Transmission tariff for FY 2012-13 for Chhattisgarh State Power Transmission Co. Ltd.

(3) Approval of provisional true up for FY 2010-11, Annual Performance Review for FY 2011-12 and revision of Annual Revenue Requirement for FY 2012-13 for State Load Dispatch Centre.

(4) Approval of provisional true up for 2010-11, Annual Performance Review for FY 2011-12, revision of Annual Revenue Requirement for FY 2012-13 and retail tariff determination for FY 2012-13 for Chhattisgarh State Power Distribution Co. Ltd.

ORDER

(Passed on 28.04.2012)

1. This order is passed in respect of the petitions filed by the (i) Chhattisgarh State Power Generation Company Ltd. (CSPGCL, for short) for provisional true up for FY 2010-11, Annual Performance Review (APR, for short) for FY 2011-12, for revision of Annual Revenue Requirement (ARR, for short) and Tariff resetting for FY 2012-13 (ii) Chhattisgarh State Power Transmission Company Ltd. (CSPTCL, for short) for provisional true up for FY 2010-11, APR for FY 2011-12, revision of ARR and determination of Transmission tariff for FY 2012-13, (iii) State Load Dispatch Centre (SLDC, for short) for provisional true up for FY 2010-11, APR for FY 2011-12 and revision of ARR for FY 2012-13 and (iv) Chhattisgarh State Power Distribution Company Ltd. (CSPDCL, for short) for approval of provisional true up for 2010-11, APR for FY 2011-12, revision of ARR for FY 2012-13 and retail tariff determination for FY 2012-13.

2. This order is passed under the provisions of section 45 and 62 read with section 86(1) of the Electricity Act, 2003 ('the Act', for short). This joint order is passed by the Commission on the four separate petitions filed by CSPGCL, CSPTCL, SLDC and CSPDCL after having considered all the information and documents filed with the said petitions, the information made available to the Commission after technical validation, and after having heard the applicant companies, SLDC, the consumers,

their representatives and other stakeholders in the public hearings held by the Commission. This joint order is for all the four petitions, since final true up for the period FY 2007-08 and FY 2008-09 (up to December, 2008) has not been done in respect of the then Chhattisgarh State Electricity Board (CSEB, for short) of which the petitioners are the successor companies w.e.f. 01.01.09.

3. As per provision in the Tariff Policy, the Commission framed the multi-year tariff regulations i.e. the CSERC (Terms and Conditions of determination of tariff according to multi-year tariff principles) Regulations, 2008. As per these Regulations the MYT framework was required to be followed for determination of tariff from the FY 2009-10. The erstwhile CSEB was required to prepare and get the Commission's approval, of a business plan for three years from FY 2009-10 to FY 2011-12, as the first control period of the MYT regime. On request of the erstwhile CSEB, the Commission did not insist for filing of MYT petition and business plan in the year 2008-09, so as to allow it sufficient time to get prepared for filing of MYT petition. In the meantime, the Government of Chhattisgarh restructured the CSEB w.e.f. 01.01.2009, in pursuance of the provisions under section 131 of the Act. However, separate accounts of the companies were to be prepared, which, as per the Government notification, would be done within one year. Under these circumstances, the Commission had no option, but to desist on compliance with the provision of the MYT Regulations and had accepted petitions for

determination of tariff only for the FY 2009-10 as per the old tariff regulations of 2004 and 2006 which were not repealed. The Commission, however, directed the three companies and SLDC to prepare their business plans for the first control period of three years i.e. for the years FY 2010-11 to FY 2012-13 and prepare for the MYT regime to be introduced from FY 2010-11. Subsequently, the Commission came out with CSERC (Terms and Conditions of Determination of Tariff according to Multi-Year Tariff Principles) Regulations, 2010, (for short, MYT Regulations, 2010) notified in January 2010 to bring its regulations as far as possible in line with the latest CERC (Terms and Conditions of Tariff) Regulations, 2009, particularly in respect of generation and transmission companies.

4. The CSPGCL, CSPTCL, SLDC and CSPDCL submitted business plans for capital expenditure of Rs. 8746 crore, Rs.2500 crore, Rs.15 crore and Rs.3701 crore respectively (i.e. for a total amount of Rs.14962 crore) on 26.03.2010 for the three years of control period (i.e. FY 2010-11 to FY 2012-13). After prudence check and scrutiny, the Commission approved the business plans for capital expenditure of Rs.8477 crore, Rs.2216 crore, Rs. 11 crore and Rs.2878 crore for CSPGCL, CSPTCL, SLDC and CSPDCL respectively (i.e. for total amount of Rs.13582 crore) on 01.06.2010.

5. In pursuance to the above said MYT Regulations, 2010, all the above said three companies and SLDC submitted petitions before the

Commission and the Commission passed a joint tariff order on 31.03.2011 which is applicable up till 31.03.2012 or till the next tariff order of the Commission, whichever is later.

6. Subsequently, CSPGCL and CSPTCL have filed petition(s) regarding additional Business Plan for the control period FY 2010-11 to FY 2012-13. The addition/revision in respect of Business Plan of CSPGCL has been approved by the Commission by an order dated 31.03.2012 in petition No. 01 of 2012. The addition/revision in the Business Plan in respect of the CSPTCL has also been approved by the Commission by an order dated 28.03.2012 in petition No. 36/2011.

7. In the last tariff order, the Commission has conducted final truing up of ARR for the year FY 2005-06 and FY 2006-07 for which statutory audit was reported to be completed by the Accountant General (Audit) (AG Audit, for short). In the present petition, none of the companies have submitted proposal for final true up ARR for the FY 2007-08 and onwards. During the technical validation sessions, the Commission was informed that since the AG Audit report in respect of FY 2007-08 and onwards has not been received, hence, proposal for final true up of ARR for FY 2007-08 and onwards has not been submitted by the power companies in their petitions. The issue regarding AG Audit reports was raised by various stake holders vociferously during public hearings held on 02.03.2012 and 03.03.2012. This issue was also raised vigorously by members of State Advisory Committee during the meeting on 13.03.2012. A reference was

made to power companies vide letter dated 15.03.2012 for informing the status regarding AG Audit reports. In response, the Chhattisgarh State Power Holding Co. Ltd. (in short, CSPHCL) vide letter dated 20.03.2012 has forwarded the copy of the Audited report (AG Report, for short) of annual accounts of erstwhile CSEB for FY 2007-08. It has also informed the Commission that audit of accounts for FY 2008-09 (up to December 2008) of erstwhile CSEB has also been completed by the AG (Audit); however the audit certificate is awaited. It has been noted by the Commission that the AG (Audit) has forwarded the copy of AG report of accounts for FY 2007-08 vide letter dated 24.10.2011 which was received in the office of the Managing Director, CSPHCL on 03.11.2011. Therefore, taking serious view in the matter, the Commission has directed the power companies to look in to the matter and submit a report regarding non filing of final true up petition for FY 2007-08. In absence of petitions for final truing up for FY 2007-08 and FY 2008-09 (for the period up to Dec., 2008 for erstwhile CSEB), the Commission could not carry out the final truing up for FY 2007-08 and FY 2008-09.

8. For the purpose of provisional true up, APR and in the assessment of the ARR of the three companies and SLDC for tariff determination, the Commission has followed its MYT Regulations, 2010, which embody the principles for determination of tariff, enunciated in section 61 of the Act. In passing this order, the Commission has also been guided by the National Electricity Policy (NEP), 2005 and the Tariff Policy (TP), 2006, as

mandated under the same provision of the Act. The Commission has taken care to ensure that the revenue requirements of the companies and SLDC are based, as far as possible, on reasonable and prudent expenditure, required to enhance generation capacity in the State, expand the transmission and distribution network to meet the growing demand for electricity, and to improve the quality of service to the consumers and operational efficiency of the companies.

9. The Commission has carried out the provisional true up of the ARR for the FY 2010-11 of the power companies and SLDC based on the provisional accounts for the respective year. The provisional true up for the previous years i.e. FY 2007-08 to FY 2009-10 has already been carried out by the Commission. The Commission vide order dated 31.03.2011 approved the ARR of Rs 2328 crore, Rs 504 crore, Rs 10 crore and Rs 4155 crore in respect of CSPGCL, CSPTCL, SLDC and CSPDCL respectively for the FY 2010-11. After provisional truing up, the Commission has now revised and approved the ARR of Rs 2341 crore, Rs 407 crore, Rs 8 crore and Rs 3978 crore in respect of CSPGCL, CSPTCL, SLDC and CSPDCL respectively for the FY 2010-11. In the provisionally trued up ARR for FY 2010-11 the sharing of gains and losses has also been allowed between the beneficiaries and utilities as per the provisions of the MYT Regulations, 2010.

10. The Commission in the previous tariff order for FY 2011-12 issued on 31.03.2011, approved a total amount of Rs.200 Cr to be deposited by

all successor companies in the Gratuity and Pension Fund annually during the control period i.e. from FY 2010-11 to FY 2012-13. CSPDCL vide letter dated 22.03.2012 has now submitted a copy of report on actuarial valuation of Gratuity and Pension benefits as at 31.03.2010. In this report, the past service liability of gratuity scheme and past service liability of pension scheme as at 31.03.2010 has been worked out to Rs. 441.6 crore and Rs. 4808.2 crore respectively. The Commission has also observed that some employees unions/association have requested the Commission to suitably increase the quantum of contribution to the Pension and Gratuity fund. Since the actuarial report has to be studied in detail, hence, the Commission has decided to retain the provisions made in this regard in the previous tariff order for the control period i.e. from FY 2010-11 to FY 2012-13, for the present. However, the Commission may examine and consider the same during the next tariff order.

11. The Commission has allowed ARR of Rs 2336 crore, Rs 601 crore, Rs 12 crore and Rs 5707 crore for CSPGCL, CSPTCL, SLDC and CSPDCL in the order dated 31.03.2011 respectively for the FY 2011-12. The Commission has carried out APR for these companies and SLDC for the FY 2011-12. Owing to the review done by the Commission, now the ARR for FY 2011-12 for CSPGCL, CSPTCL, SLDC and CSPDCL has been revised and approved as Rs 2409 crore, Rs 517 crore, Rs 12 crore and Rs 6021 crore respectively.

12. The Commission vide previous tariff order dated 31.03.2011 determined the ARR of Rs 2250 crore, Rs 768 crore, Rs 13 crore and Rs 6146 crore for the FY 2012-13 in respect of CSPGCL, CSPTCL, SLDC and CSPDCL respectively. Against the above approved ARR, the CSPGCL, CSPTCL, SLDC and CSPDCL have now proposed the revision in ARR for FY 2012-13 (along with the APR for FY 2011-12) as Rs 2462 crore, Rs 715 crore, Rs 16 crore and Rs 7043 crore respectively. After prudence check and scrutiny, the Commission has considered the same and now approves the revised ARR for FY 2012-13 as Rs 2416 crore, Rs 720 crore, Rs 14 crore and Rs 6336 crore respectively for CSPGCL, CSPTCL, SLDC and CSPDCL respectively.

13. The Commission has approved the revised ARR of Rs 7030 crore for the FY 2012-13 in respect of CSPDCL after accounting for the deficit of Rs. 693 crore (revised and approved in this tariff order) carried forward from FY 2010-11. It has been estimated that with the prevailing tariff, CSPDCL would earn revenue of Rs 5278 crore during the FY 2012-13 leaving a cumulative deficit of Rs. 1752 crore.

14. The Commission has taken into consideration the judgement passed by the Hon'ble Appellate Tribunal for Electricity (for short, Hon’ble Tribunal) on 11.11.2011 in OP No. 1 of 2011 wherein it is mentioned *"In determination of ARR / Tariff, the revenue gaps ought not to be left and Regulatory Asset should not be created as a matter of course except where it is justifiable, in accordance with the Tariff Policy and the*

Regulations. The recovery of the Regulatory Asset should be time bound and within a period not exceeding three years at the most and preferably within Control Period. Carrying cost of the Regulatory Asset should be allowed to the utilities in the ARR of the year in which the Regulatory Assets are created to avoid problem of cash flow to the distribution licensee."

15. It remains a fact that if the cumulative deficit of Rs. 1752 crore is completely met through a tariff increase during FY 2012-13 itself there will be tariff shock to retail consumers to a great extent, which may adversely affect the agricultural as well as the industrial growth of the State apart from the undue hardship to other consumers. Therefore, to avoid tariff shock, the Commission has decided to increase tariff only to a limited extent. The new retail supply tariff approved by the Commission in this order will result in an estimated additional revenue of Rs 924 crore in the FY 2012-13 against the estimated cumulative deficit of Rs. 1752 crore. The remaining deficit of Rs 828 crore shall be carried forward to the FY 2013-14 and thereafter but for the period not more than three years. The Commission has decided that the suitable carrying cost of this Regulatory Asset may be allowed.

16. The approved average cost of supply for FY 2012-13 (considering only the treated gap) is equal to Rs 4.07 per unit (kWh). In case, the entire deficit of Rs 1752 crore would have been recovered by increase in

tariff during FY 2012-13, the cost of supply would have been Rs 4.62 per unit.

17. The Commission has also considered the directive in the judgement dated 11.11.2011 of the Hon'ble Tribunal which pronounce as - "*Fuel and Power Purchase Cost is a major expense of the distribution company which is uncontrollable. Every State Commission must have in place a mechanism for Fuel and Power Purchase cost in terms of Section 62(4) of the Act. The Fuel and Power Purchase cost adjustment should preferably be on monthly basis on the lines of the Central Commission's Regulations for the generating companies but in no case exceeding a quarter. Any State Commission which does not already have such formula / mechanism in place must within 6 months of the date of this order must put in place such formula / mechanism*". Considering this directive, the Commission has made provision for Fuel and Variable Cost Adjustment in this tariff order.

18. In the above said judgment dated 11.11.2011 of the Hon'ble Tribunal, State Commissions have also been directed to ensure that tariff for the financial year is decided before 1st April of the tariff year. The tariff petition of CSPGCL, CSPTCL, SLDC and CSPDCL and were registered by the Commission on 25.01.2012, 19.01.2012, 17.01.2012 and 23.12.2011 respectively. The determination of ARR for CSPDCL depended upon determination of ARR for CSPGCL and CSPTCL. The Commission tried it's level best for issuance of this tariff order before 01.04.2012, but, due to

delay in submission of petitions in spite of clear directives of the Commission, frequent revisions in data/information by utilities besides delay in getting desired information/data from the utilities, time taken by the Commission for prudent scrutiny of the same, the order could not be issued before 01.04.2012. However, this joint tariff order disposes off three of the four petitions within the time limit specified in Section 64(3) the Act.

19. As regard to tariff categories, the Commission has made following additions/changes in the tariff categories in this order in respect to the tariff categories in the previous tariff order:-

(i) In the last tariff order dated 31.03.2011, the billing for domestic and non-domestic categories was allowed through non telescopic route. CSPDCL has now proposed the billing for domestic and non-domestic categories through telescopic route. Further, various consumer groups have also requested for removal of non telescopic slab tariff as the same is leading to higher cost on marginal increase in consumption over the lower slab. In order to give relief to the consumers, the Commission has decided to reintroduce telescopic slab tariff for LV-Domestic and non domestic consumers which is prevailing in many States.

(ii) In the Chhattisgarh State Electricity Supply Code, 2011 (in short, Supply Code, 2011) it has been provided that on request of HV industrial consumer, licensee may provide a separate independent LV connection in same premise of HV industrial connection, to meet out its essential load during emergency on non-availability of supply in HV connection. Tariff for such supply has been decided in this Tariff Order.

(iii) Under the category for Steel Industries for HV consumers, an optional tariff as detailed in Tariff schedule has been allowed for mini steel plants exclusively having Electrical Arc Furnace or Induction Furnace for the manufacturing of steel. This optional tariff has been provided as per the proposal of CSPDCL, since it has been a long pending demand of mini steel plants of the State that they are required to pay substantial amount of fixed charges even during shut down or very low production periods when the energy consumption is very low which adversely affect their capability to compete in the national steel market. This tariff category will be optional and once opted, the consumers will have an option to change tariff from this optional category as per provisions of the Supply Code, 2011.

(iv) As per the proposal of CSPDCL and to promote manufacturing of plants and machineries/equipments used for generation of electricity from renewable source of energy excluding boilers, Turbines, Generators which can also be used in generation of electricity from conventional sources of energy, the Commission has introduced a new tariff category for such consumers as detailed in Tariff schedule.

20. The Commission has allowed KVAh billing since last 6 years in respect of Railway Traction and it is operating effectively. CSPDCL has proposed KVAh billing for all EHV and HV category consumers. The implementation of KVAh billing has several advantages and is beneficial to both the licensee and the consumers in the long run. The Commission also notes that the KVAh metering is already in place for the EHV and HV consumers of CSPDCL. Therefore, it has been decided to implement KVAh billing for EHV and HV consumers in the phased manner. To begin with, KVAh based billing shall be carried out for all EHV consumers, HV consumers availing start up power (HV-8) and HV consumers who manufacture the equipments for power generation from renewable source of energy (HV-10) from FY 2012-13 onwards. For the present, the Commission has decided to defer the implementation of KVAh billing for remaining HV consumers i.e. HV-1, HV-2, HV-3, HV-4, HV-5, HV-6, HV-7 and HV-9 so as to allow small HV consumers to prepare for implementation of such mechanism.

21. Considering the provisions of the Supply Code, 2011 the Commission has made applicable the power factor surcharge / incentive also for all the domestic consumers with contracted load of 15 KW or above.

22. In this order, the Commission has approved the provisional true-up of ARR for the FY 2010-11, Annual Performance Review for FY 2011-12 and revised ARR for FY 2012-13 in respect of CSPGCL, CSPTCL, SLDC and CSPDCL. The Commission has also determined generation tariff, transmission charges and annual charges for SLDC and retail supply tariff for consumers for the FY 2012-13. The order shall remain in force till 31.03.2013 or till the issue of next tariff order, whichever is later. The revised tariff will be applicable after expiry of seven days from the first publication of notice by the companies and SLDC, for the information to the consumers.

23. Since the MYT Regulations, 2010 and the tariff proposal of CSPDCL for the FY 2011-12 have been challenged by way of a writ petition by an industrial consumer before the Hon'ble High Court of Chhattisgarh for adjudication, and as such, no interim order has been passed by the Hon'ble High Court in this matter, the Commission is passing this tariff order which shall be subject to any orders that may be passed by the Hon'ble High Court in writ petition No. 1422 of 2011.

24. Further, against last tariff order dated 31.03.2011 of the Commission, an appeal No. 81 of 2011 has been filed by CSPDCL before the Hon'ble Tribunal which is under consideration of the Hon'ble Tribunal. The judgement to be passed by the Hon'ble Tribunal may lead to financial repercussions which shall be suitably addressed by the Commission, if so required.

25. The tariff schedule of this order is attached herewith. However, the Commission in due course will issue the detailed analysis and findings of the various aspects of truing up, APR and the ARR of the companies.

26. The Commission directs the companies and SLDC to take immediate steps to implement the tariff order. A public notice of 7 days be given in accordance with the CSERC (Details to be Furnished by the Licensees or Generating Company for Determination of Tariff and Manner of Making Application) Regulations, 2004 and MYT Regulations, 2010 before implementation of the tariff order.

Member Chairman

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LIST OF ABBREVIATIONS

Abbreviation	Description
A&G	Administrative and General
ATE	Hon'ble Appellate Tribunal for Electricity
ARR	Annual Revenue Requirement
ARR	Aggregate 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
CSERC MYT Regulations, 2010	CSERC (Terms and conditions of determination of tariff according to Multi-Year tariff Principles) Regulations, 2010
CSERC Tariff Regulations, 2006	CSERC (Terms and Conditions for Determination of Tariff) Regulations, 2006
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
CSPTrCL	Chhattisgarh State Power Trading Company Limited
CWIP	Capital Work in Progress
DPS	Delayed Payment Surcharge
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
kW	Kilowatt
KWh	Kilowatt-hour
MAT	Minimum Alternative Tax
Ml	Millilitre
MMC	Monthly Minimum Charges
MT	Million Tonnes
MU	Million Units
MYT	Multi Year Tariff
NTI	Non Tariff Income
O&M	Operations and Maintenance

Abbreviation	Description
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
SERC	State Electricity Regulatory Commission
SLDC	State Load Dispatch Center
SLM	Straight Line Method
T&D Loss	Transmission and Distribution Loss
UI	Unscheduled Interchange

1 INTRODUCTION

Background

1.1 The process of restructuring of the Chhattisgarh State Electricity Board (CSEB) was initiated by the State Government in pursuance of the Provisions of part XIII of the Electricity Act, 2003 in 2008 with the issuance of the CSEB Transfer Scheme Rules, 2008 with effect from January 1, 2009. As per the rules, the erstwhile CSEB has been unbundled into five independent Companies vis. Chhattisgarh State Power Holding Company Limited (CSPHCL) or the Holding Company, Chhattisgarh State Power Generation Company Limited (CSPGCL) or the Generation Company, Chhattisgarh State Power Transmission Company Limited (CSPTCL) or the Transmission Company, Chhattisgarh State Power Distribution Company Limited (CSPDCL) or the Distribution Company and Chhattisgarh State Power Trading Company Limited (CSPTrCL) or the Trading Company. The assets and liabilities of 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 issued in supersession of the earlier notification dated December 19, 2008.

1.2 The three power companies CSPGCL, CSPTCL and CSPDCL, and the State Load Dispatch Centre (SLDC) have filed before the Commission the petition for provisional truing up of Annual Revenue Requirement (ARR) for FY 2010-11, Annual Performance Review (APR) for FY 2011-12, revision of ARR for FY 2012-13 and retail tariff determination for FY 2012-13. Under the provisions of the Electricity Act, 2003, (EA, 2003) the mandate of determination of tariffs is vested in the Chhattisgarh State Electricity Regulatory Commission (hereinafter referred to as the Commission).

The Electricity Act, 2003, Tariff Policy (TP) and Regulations

1.3 Section 61 of the EA, 2003 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 determining the tariff 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.

1.4 Section 62 of the EA, 2003 stipulates 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.

1.5 The Tariff Policy (TP) 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 even for the weaker sections of society.

1.6 The Commission has set up the necessary regulatory framework within which determination of tariff may be done in an open and transparent manner. The Commission has notified the following Regulations, which have impact on tariff setting principles and norms:

- CSERC (Fees and Charges) Regulations, 2009
- CSERC (Conduct of Business) Regulations, 2009
- CSERC (Details to be furnished by licensee etc.) Regulations, 2004.
- CSERC (Terms and Conditions for Determination of Tariff) Regulations, 2006
- Chhattisgarh State Electricity Grid Code, 2011
- Chhattisgarh State Electricity Supply Code, 2011
- CSERC (License) Regulations, 2004.
- CSERC (License) Regulations, (First Amendment) 2008.
- CSERC (Terms and conditions of determination of tariff according to Multi-Year tariff Principles) Regulations, 2010
- CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations, 2010
- CSERC (Connectivity and Intra-State Open Access) Regulations, 2011
- CSERC (Renewable Purchase Obligation and REC Framework Implementation) Regulations, 2011

Brief Note on Tariff Filing and Public Hearing

1.7 The erstwhile CSEB as an integrated utility had to submit a MYT petition, to the Commission by November 30, 2008, as required under CSERC (Terms and Conditions of determination of tariff according to Multi Year Tariff principles) Regulations, 2008.

1.8 The Commission had directed that CSEB should submit five year Business Plan including capital investment plan for the period beginning FY 2008-09 which the CSEB submitted on December 5, 2008. Due to delay in submission of the Business Plan of the erstwhile Board for the control period of three years, the MYT petition was also delayed. In the meantime the GoCG initiated the process of restructuring and 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.

1.9 In view of these developments, the three companies i.e., CSPGCL, CSPTCL and CSPDCL submitted that it was not possible for them to file the MYT petition as the number of base parameters would be changed as per transfer scheme which was yet to be notified by GoCG. The companies requested the Commission to permit filing of ARR for FY 2008-09 and FY 2009-10 and tariff petition for FY 2009-10. In view of the developments, the Commission allowed the three companies to file single year tariff petition for FY 2009-10 in place of the MYT petition. The Commission, however, directed the three companies to prepare their business plans for the first control period of three years i.e. for FY 2010-11 to FY 2012-13 and submit MYT petitions under the MYT regime to be introduced from FY 2010-11.

1.10 Subsequently, the Commission came out with CSERC (Terms and Conditions of Determination of Tariff according to Multi-Year Tariff Principles) Regulations, 2010 (hereinafter referred to as CSERC MYT Regulations, 2010), notified in January, 2010 to bring its regulations as far as possible in line with the latest CERC (Terms and Conditions of Tariff) Regulations, 2009, particularly in respect of generation and transmission companies.

1.11 The three power companies i.e. CSPGCL, CSPTCL and CSPDCL, and the SLDC submitted to the Commission separate petitions for determination of ARR for the MYT control period i.e. FY 2010-11 to FY 2012-13, and for determination of tariff for Generation, Transmission and SLDC for the control period and retail tariff for FY 2010-11. The companies also submitted petitions for true up of ARR of CSEB for FY 2005-06 to December 31, 2008 and true up of ARR of the three companies separately for the period Jan-Mar 2009 and for FY 2009-10. The Commission subsequently issued the Order on MYT Petitions of CSPGCL, CSPTCL and SLDC, and CSPDCL for FY 2010-11 to FY 2012-13 and Tariff Order for FY 2011-12 (the MYT Order) on March 31, 2011. The MYT Order also cover the final true for FY 2005-06 & FY 2006-07 and provisional true up for FY 2008-09 & FY 2009-10.

1.12 In accordance with the CSERC (Terms and conditions of determination of tariff according to Multi-Year tariff Principles) Regulations, 2010 the three power companies CSPGCL, CSPTCL and CSPDCL, and the SLDC have now filed before the Commission the petitions for provisional truing up of ARR for FY 2010-11, APR for FY 2011-12, revision of ARR for FY 2012-13 and retail tariff determination for FY 2012-13 in December 2011/January 2012. After preliminary scrutiny, the Commission registered the petitions submitted by the three companies as Petition No. 09/2012(T) for CSPGCL, 05/2012(T) for CSPTCL and 61/2011(T) for CSPDCL. The SLDC filed its petition in January, 2012 and was registered by the Commission as Petition No. 03/2012(T).

1.13 The Commission directed the companies to publish the abridged version of the petition in Hindi and English newspapers for inviting comments / objections / suggestions from the public. As required under clause 21 of the CSERC (Details to be furnished by licensee etc.) Regulations, 2004, public notices inviting suggestions /comments/objections from the public on the above proposals were published in the leading newspapers of the State on December 30, 2011 by CSPDCL, on January 29, 2012 by CSPTCL, on January 31, 2012 by CSPGCL and on February 2,2012 by SLDC. A period of twenty one (21) days was given by the Commission for submission of written objections and suggestions by the public. The Commission also directed the companies to send written replies to the respective objectors with copies endorsed to the Commission. The objections raised by the public have been dealt separately in Section 2 of this order. The Commission also sent the copy of the abridged Hindi and English version of the tariff petition to all the members of the State Advisory Committee of the Commission on February 23, 2012 for their comments.

1.14 The Commission received objections and suggestions from stakeholders on a variety of issues, which are detailed in the next section of this order.

1.15 Notices for public hearings were published in the following leading newspapers of the State. Besides, wide publicity was also given through local newspapers at Raipur, Bilaspur and Jagdalpur:

Table 1: List of Newspapers in which Notice for Public Hearing was published

Newspaper Name	Dates of Notice Published
Nav Bharat, Bilaspur	16.02.2012
Dainik Bhaskar, Bilaspur	16.02.2012
Desh Bandhu, Raipur	16.02.2012, 29.02.2012, 02/03/2012
Hari Bhumi, Bilaspur	16.02.2012
Nai Dunia, Raipur	16.02.2012, 29.02.2012, 02/03/2012
The Hitvada, Raipur	16.02.2012, 29/02/2012, 02/03/2012
Patrika, Raipur	16.02.2012, 29.02.2012, 02/03/2012
Nav Bharat, Raipur	16.02.2012, 27.02.2012, 29.02.2012, 02/03/2012
Dainik Bhaskar, Raipur	16.02.2012, 27.02.2012, 29.02.2012, 02/03/2012
Hari Bhumi, Raipur	27/02/2012, 29.02.2012, 02/03/2012

1.16 The Commission held public hearings with a view to give adequate opportunity of personal hearing to the objectors. Hearing was held not only on the representations / comments received but an opportunity was also given for open hearing to all the participants, irrespective of whether they had submitted written objections / comments on the tariff application or not, at the following places in the State:

Table 2: Details of Public Hearing

Date	Venue for hearing	Time & Consumer Category
22.02.2012	"Prerana" Assembly Hall, Collector Parisar, Jagdalpur	10:00 AM to 2:00 PM (on petitions of CSPGCL, CSPTCL, SLDC & CSPDCL including on retail tariff proposals for all consumers)
24.02.2012	Conference Room, Revenue Board, Bilaspur	11:00 AM to 2:00 PM (On petition of CSPDCL including on retail tariff proposals for all LT domestic, agriculture, LT Industrial and non-domestic consumers) 4:00 PM to 6:00PM (On retail tariff proposals for S.E.C.L., Railway and all EHT and HT consumers. Also on petitions of CSPGCL, CSPTCL & SLDC
25.02.2012	Jila Panchayat Assembly Hall, Ambikapur	10:30 AM to 2:30 PM (on petitions of CSPGCL, CSPTCL, SLDC & CSPDCL including on retail tariff proposals for all consumers)
02.03.2012	"Krida Bhavan" Vidyut Mandal Parisar, Dangania, Raipur	11:00 AM to 2:30 PM (On petition of CSPDCL including on retail tariff proposals for all LT domestic, agriculture, LT industrial and non-domestic consumers) 3:30 PM to 5:30 PM (On retail tariff proposals for all HT consumers)
03.03.2012	"Krida Bhavan" Vidyut Mandal Parisar, Dangania, Raipur	11:00 AM to 2:00 PM (for Bhilai Steel Plant, BALCO and on tariff proposals for all EHT consumers) 3:30 PM to 5:30 PM (on petitions of CSPGCL, CSPTCL & SLDC)

State Advisory Committee Meeting

1.17 A special meeting of the State Advisory Committee, constituted under Section 87 of the Act, was convened on March 13, 2012 to discuss the tariff petitions and seek the advice of the Committee. In the meeting some member of the State Advisory Committee raised the issue regarding AG audit report for the erstwhile CSEB for FY 2007-08.

Layout of the Order

1.18 This Order is organised into the following Chapters:

(a) Chapter 1 – provides background, tariff setting process, tariff petition filing, public hearing schedule and etc.;

(b) Chapter 2 – provides a detailed account of the Public Hearing process, including the comments made by various stakeholders, the Petitioner's response and views of the Commission;

(c) Chapter 3 – analyses the provisional true up for FY 2010-11, Annual Performance Review (APR) for FY 2011-12, Aggregate Revenue Requirement (ARR) for FY 2012-13 for CSPGCL, and Generation tariff for FY 2012-13;

(d) Chapter 4 – analyses the provisional true up for FY 2010-11, APR for FY 2011-12, ARR for FY 2012-13 for CSPTCL, and Transmission tariff for FY 2012-13;

(e) Chapter 5 – analyses the provisional true up for FY 2010-11, APR for FY 2011-12, ARR for 2012-13 for SLDC and charges for FY 2012-13;

(f) Chapter 6 – provisional true up for FY 2010-11, APR for FY 2011-12, ARR for 2012-13 for CSPDCL;

(g) Chapter 7 – contains the Tariff Principles and Design of the Commission;

(h) Chapter 8 – contains the Tariff Schedule approved by the Commission for FY 2012-13; and

(i) Chapter 9 – details the Directives of the Commission.

1.19 The Order contains the following Annexure, which are an integral part of the Tariff Order.

(a) Annexure 1 – List of objectioners;

(b) Annexure 2 – List of persons who attended the public hearings;

2 OBJECTIONS AND SUGGESTIONS FROM THE PUBLIC/ CONSUMERS AND PETITIONER'S RESPONSE

2.1 The three successor companies of erstwhile CSEB i.e. Chhattisgarh State Power Generation Company Limited (CSPGCL), Chhattisgarh State Power Transmission Company Limited (CSPTCL) Chhattisgarh State Power Distribution Company Limited (CSPDCL) and State Load Dispatch Centre (SLDC) filed separate petitions for provisional true up for FY 2010-11, Annual Performance Review (APR) for FY 2011-12, revision of ARR for FY 2012-13 and tariff determination for FY 2012-13.. However, the petitions filed by all three companies and SLDC were processed together and the common public hearings were held on the petitions.

2.2 All written objections received by the Commission were forwarded to the companies and SLDC as and when they were received, while some of the objections were received directly by the companies. The companies were asked to submit its replies and views in respect of the objections. In addition, during the public hearings, some of the objectors, who had submitted their objections in writing earlier, presented their objections and suggestions personally before the Commission. Other participants from the general public, who had not submitted written objections earlier, were also given an opportunity to present their views in respect of the tariff proposals. The list of objectors who made written submission is annexed in Annexure 1 of this Order while the list of participants who attended the public hearing is annexed in Annexure 2 of this Order.

2.3 The views and suggestions of the objectors on the petitions and the replies given by the companies are discussed below.

Issues relating to Chhattisgarh State Power Generation Company Limited (CSPGCL)

1) Increase in Overhead Costs

2.4 The objectors have noted significant increase in the overhead costs of the five successor companies formed after unbundling of erstwhile Chhattisgarh State Electricity Board (CSEB). The creation of separate companies for generation, transmission, distribution & trading business along with holding company has resulted in creation of separate head offices for each company. This has increased fixed costs of the companies due to increase in overheads & manpower costs of the companies. These costs are then passed on to the consumers through ARR. They have requested that any increase in overhead costs on this account be disallowed.

CSPGCL's Reply

2.5 CSPGCL submitted that unbundling of erstwhile CSEB into five successor companies was a policy decision made by State Government in accordance with the provisions of the Electricity Act 2003. Thus it is a policy matter and does not come under the purview of the Company and as such it would be improper for it to comment on this issue.

Commission's View

2.6 Re-organisation & unbundling of erstwhile CSEB is as per the provisions of the Electricity Act 2003. Further the modalities & mechanism of unbundling has been as per decision made by the State Government.

2) Anomalies in ARR calculation

2.7 The ARR for CSPGCL has been estimated on the basis of norms set by Central Commission for NTPC stations. However, it should be noted that performance of NTPC stations is not comparable to the regional companies as central PSUs generate their own equity and do not face any cash shortage. Hence application of norms by Central Commission for CSPGCL would result in anomaly in ARR for the state consumers.

CSPGCL's Reply

2.8 CSPGCL has submitted that estimates for ARR are prepared on basis of norms set by Hon'ble CSERC in its MYT Regulations 2010 and as such there is no anomaly in ARR computation as pointed out by the consumer.

Commission's View

2.9 Norms for all the power stations have not been set as that of norms set by the Central Commission in its regulations. Norms for Dr. Shyama Prasad Mukherjee thermal power plants are set on the basis of Central Commission regulations. However, norms for other power stations are set on the basis of historical data. These norms are specified in MYT Regulations, 2010, which was notified after completion of due regulatory process. The Commission has discussed in detail the basis of assumptions for projecting ARR for CSPGCL in the relevant section of this order.

Issues relating to Chhattisgarh State Power Transmission Company Limited (CSPTCL)

1) Proposed Transmission Charges

2.10 Transmission charges proposed by CSPTCL for FY 2012-13 i.e. Rs 270/MWh, which is significantly higher when compared with other states of India. Further, the transmission charges should be arrived at on the basis of the expected volume to be handled by CSPTCL without deducting drawl from CGS / Bilateral + OA Import. Also, the capital expenditure recovery should be spread out to useful life of lines. Considering the current economic scenario, it has been requested to bring these charges in the range of Rs 80/MWh to Rs 140/MWh for FY 12-13.

CSPTCL's Reply

2.11 CSPTCL has replied that the transmission charges are based on a) the energy availability by state generation, b) central sector generation & c) short term open access customer's projection during that period. As compared to FY 2010-11, when the state had 38 open access customers injecting 810 MW of power, as on date, there are 10 open access customers injecting approximately 420 MW power in the state network for inter-state sale. Also, 6 MTOA customers are injecting approximately 50

MW of power into the state network for interstate sale. Keeping in view the quantum of the power under short term open access, the rates appear on the reasonable side as it includes the transportation of the power on the various voltage levels within the State i.e. 33/132/220/400 as applicable. Moreover, Chhattisgarh is a small state in size and in terms of handling energy as compared to other large states of the country. Therefore, the charges appear to be reasonable and hence, the comparison of the transmission charges with other States is not justified.

Commission's View

2.12 The Commission has considered the provisions of CSERC MYT Regulations, 2010 for provisional truing up of FY 2010-11, annual performance review of FY 2011-12 and revision of ARR for FY 2012-13. The transmission charges have been arrived at by the Commission on the basis of provisions of the MYT Regulations, 2010.

2) Payment of transmission charges on reserve capacity

2.13 Capacity based charges should be complied for medium and long term open access customers. Short term open access customers should be excluded and charges should be collected on schedule cleared against each application made to them from the buyer/trader and not from the generator.

CSPTCL's Reply

2.14 CSPTCL has replied that the amount is neither an additional condition nor a conflict with the CERC regulation. Regulation 33 (1) "Open access charges- Transmission Charges" of the CERC Regulations 2011, sub clause (b) covers the same. The STOA customer after reserving the capacity is getting its power scheduled in the open access. Further, the quarterly report submitted to the Commission by SLDC, CSPTCL vide 2277 dated 21st November 2011 also indicates that the open access customer is reserving the capacity in the state network but neither he is utilizing the full capacity nor surrendering the un-utilized reserved capacity. Thus, the STOA customer is trying to make advantage of the State Grid for the purpose of evacuation of their power through the state network without incurring any infrastructure cost like the long term open access customers. Hence, the reserve capacity charges, as per the provisions of the CSERC Open Access Regulations, 2011, are rightly spelled out and CSPTCL has complied with the Regulations.

Commission's View

2.15 The Commission considered the CSERC (Connectivity and Intra-State Open Access) Regulations, 2011 to calculate open access charges for STOA customers and there should not be any deviations on that front.

3) Transmission Losses

2.16 Transmission losses projected by CSPTCL for FY 2011-12 i.e. 4.67% are high in comparison to actual loss levels for the first nine months of FY 2011-12 i.e. 3.96% . Also, it is to be noted that the average transmission losses in other states is at 3.6679%, which is significantly lower than that of Chhattisgarh. The transmission losses for FY 2012-13 should be in the range of 3.5% to 3.96%.

CSPTCL's Reply

2.17 CSPTCL has submitted that it would have been proper if the transmission losses of Chhattisgarh were compared with the CTU losses. Based on the actual figures for FY 2010-11, CSPTCL losses have been 4.44% while CTU losses were 5.94%. Hence, the losses differ with the maximum demand handling capacity from time to time.

Commission's View

2.18 The Commission has addressed this issue while determining the ARR and tariff for MYT period for CSPTCL and has considered the information submitted by Petitioner, after prudence check.

4) Effective date of implementation

2.19 It is proposed that the date of implementation is to be April 1, 2012. The transmission tariff to be approved by the Commission for FY 2012-13 should be applicable for the STOA application received after the date of implementation of tariff order. The transmission tariff of FY 2011-12 should be applicable on the STOA application submitted before the date of implementation of the tariff order for FY 2012-13 for the power to be wheeled / transferred after the date of implementation of the tariff. This suggestion is based on the methodology adopted by POSCO while implementing the Point of Connection charges.

CSPTCL's Reply

2.20 CSPTCL has replied that the provision for the implementation of tariff is given in CSERC Regulation and shall be binding for all.

Commission's View

2.21 Tariff determination is an annual exercise and new tariff will be applicable from effective date as intimated by the Commission, irrespective of the status of STOA application.

5) Increase in Overhead Costs

2.22 There has been a significant increase in the overhead costs since the formation of the five companies under the Chhattisgarh State Electricity Board. This has led to overall increase in the staff employed too. Instead of one head-office, now there are five head-offices adding to the overheads. These costs in turn, are being recovered from the consumers.

CSPTCL's Reply

2.23 CSPTCL has replied that the then existing Chhattisgarh State Electricity Board was reorganized into five companies on January 1, 2009 on the basis of Section 131 of the Electricity Act, 2003, which was a decision of the Chhattisgarh state Government and does not come under the purview of CSPTCL.

Commission's View

2.24 The erstwhile Chhattisgarh State Electricity Board was split into five companies on January 1, 2009 on the basis of Section 131 of the Electricity Act, 2003, which was a decision of the Government of Chhattisgarh and does not come under the purview of Commission.

6) Disproportionate increase in tariff

2.25 Before the formation of the five companies, the tariff hike was carried out centrally as per the revenue requirements. But now, the tariff is formulated on the basis of the cost incurred in electricity purchase from the generating company and adding up the costs quoted by the transmission and distribution companies. Post reorganization of the companies, there has been a disproportionate increase in the tariff by the transmission company, which ultimately affects the retail tariff.

CSPTCL's Reply

2.26 CSPTCL has replied that whatever tariff hike was proposed was framed on the basis of the revenue requirements of FY 2011-12. The tariff hike was approved by the Commission on the basis of the CSERC MYT Regulations, 2010 by its tariff order dated March 31, 2011.

Commission's View

2.27 The Commission has approved the ARR on the basis of CSERC MYT Regulations, 2010.

7) Funds spent on unnecessary projects

2.28 The CSPTCL has been taking up unnecessary projects. A recent tender for 400 KV substation project would be an apt example of the same.

CSPTCL's Reply

2.29 CSPTCL has replied that all the projects are being taken up on the HT Substations and HT transmission lines as regulated by the Commission under the approved business plan.

Commission's View

2.30 The Commission has scrutinized the business plan proposed by CSPTCL and approved it accordingly.

8) Status of Annual Accounts

2.31 The accounts of the FY 2007-08 of the licensee have not yet been audited. Moreover, the accounts from FY 2007-08 to 2010-11 (4 Years) are said to be provisional. Also, the account for FY 2010-11 has been signed by the GM (Finance). It is not even provisionally approved by the Board of Directors of the company. Hence, all the accounts are merely information and not of the nature of provisionally approved accounts.

CSPTCL's Reply

2.32 CSPTCL has replied that as per the information available from CSPHCL, the AG Audit of accounts of FY 2008-09 (up to Dec-08 i.e. 9 Months) has been completed and the final comments from AG Audit are awaited. Also, the individual working of the accounting system of CSPTCL came into existence from January 1, 2009 after the reorganization of the erstwhile CSEB. CSPTCL has provided the details of the accounts for the onward period as follows:

(a) Account of FY 2008-09 (January 2009 to March 2009) has been audited by C&AG. The final audited account has already been submitted to CSERC.

(b) Account of FY 2009-10 has been audited by statutory auditor and the same is due for final approval of BoD.

(c) Account of FY 2010-11 has been prepared and is to be audited. The provisional accounts have been signed by the GM (Finance) and are submitted to CSERC for tariff purposes. The same has not yet been approved by the BoD but shall be put up for approval in the ensuing BoD meeting. However, it may be noted that the provisional accounts give almost correct state of affairs of the company.

Commission's View

2.33 The Commission has not carried out the final true up for FY 2007-08 to FY 2010-11 in the absence of statutory audit. Further while accepting the provisional accounts for FY 2009-10 as the base values, the Commission has applied proper prudence check. Since the final audited accounts of FY 2007-08 were submitted to the Commission during the proceedings of this tariff order, the Commission will consider audited accounts in due course.

9) Operations and maintenance expenses

2.34 Operations and maintenance expenses allowed in the ARR for the control period are high and do not relate to the reality. Norms for O & M on per bay and per circuit kilometer are incorrect as the licensee does not maintain accounts on the basis of bay or kilometer and therefore comparing of actual versus allowed as per norms is not possible. Hence, MYT O&M norms for 2012-13 should be dropped since continuation of the MYT O&M norms would mean recovery of charges at a very high rate first and then passing on the surplus in the next year as decided by the Commission. Further, CSPTCL is not entitled to any gain, as it has been able to undertake capital expenditure of only Rs 539.78 Cr against the approved value of Rs 798.05 Cr implying that had the capital expenditure been as per the approved plan, there would have been further loss reduction.

CSPTCL's Reply

2.35 CSPTCL has submitted that the O&M expenses allowed to them by the Commission in the tariff order dated March 31, 2011 is on the basis of the norms prescribed in clause 26 (B) of CSERC MYT Regulations, 2010, which are based on the guiding principles of CERC Regulation 2009 and National Tariff Policy as per the provision contained in the Section 61 of the Electricity Act of 2003. The allowed O&M expenses comprise of employee expenses, A&G expenses and repairs & maintenance expenses. However, the Commission has also included pension and gratuity fund contribution, Holding Company expenses and R&M expenses which were not allowed by the Commission while approving expenditure on capital works in the Business plan for control period FY 2012-13. Further, CSPTCL has submitted that it was allowed ARR of Rs. 504 Cr during FY 2010-11 and Rs. 600.79 Cr for FY 2011-12. Since they have received less revenue in actual during FY 2010-11 and FY 2011-12, it is not possible to arrive at actual O&M expenditure as the expenses were limited to bare minimum.

Commission's View

2.36 The Commission has studied O&M expenses submitted by CSPTCL in detail and has approved it accordingly in this order.

10) Capital Expenditure

2.37 Capital expenditure approved for FY 2010-11 was Rs 798.05 Cr against which only Rs 539.78 Cr was utilised. Similarly in FY 2011-12 the approved amount was Rs 828.89 Cr against which only Rs. 148.96 Cr was utilized in the first 6 months. Now, the revised figures sought for approval for FY 2012-13 is Rs. 1344.58 Cr which is unrealistic.

CSPTCL's Reply

2.38 CSPTCL has replied that the facts and figures with reference to the capital expenditure have already been submitted to the Commission through the present petition and additional submissions as desired by the Commission.

Commission's View

2.39 The Commission has considered appropriate capital expenditure figures in this tariff order. It is to be noted that there have been many schemes which are nearly completion and are expected to be complete in FY 2012-13. Thus, the amount of capital expenditure in FY 2012-13 is higher than that of FY 2010-11 and FY 2011-12.

11) Asset Capitalization

2.40 The actual asset addition during the first six months of FY 2011-12 is reported to be Rs. 23.37 Cr (Schedule 6 Annexure V of six months account). Basis of arriving at capitalization figure of Rs. 300 Cr & Rs. 632.69 Cr for FY 2011-12 & FY 2012-13 respectively should be explained.

CSPTCL's Reply

2.41 CSPTCL has replied that the facts and figures with reference to the asset capitalization have already been submitted to the Commission through the present petition and additional submissions as desired by the Commission.

Commission's View

2.42 The Commission has appropriately considered the submissions made by CSPTCL in this tariff order and capitalization has been approved thereof.

Issues relating to Chhattisgarh State Power Distribution Company Limited (CSPDCL)

1) Tariff categories for LV and HV consumers

2.43 Some consumers have objected to the existing modality of non-telescopic billing. Consumers have proposed that tariff for domestic consumers should move from a non-telescopic to a telescopic structure. Non-telescopic tariff structure is unfair to the consumers as increase in consumption by even one unit leads to a disproportionately large increase in the bill paid by the consumers.

2.44 The limit of load for LV-5.1 category (Flour mills, Hullers, power looms, grinders for grinding masalas up to 15 HP) should be enhanced from 15 HP to 25 HP. However, CSPDCL has opposed the proposal made by Flour mill and Hullers association.

2.45 Proposal of KVAh Billing for all EHV & HV Consumers

(a) CSPDCL has proposed to implement KVAh billing for all EHV and HV consumers in place of kWh billing, used currently. Proper publicity and awareness/ education drive amongst the affected consumers should be held, with the help of their associations, before introduction of such a billing system.

(b) In the previous Multi Year Tariff Petition, CSPDCL had once again proposed for the implementation of KVAh billing system. But it was not accepted by the Commission which commented:

"16.61…..While a few Discoms in the Country have adopted KVAh based billing for other HT consumers, the impact of such a change is not clear. The matter is also being studied by FOR and will be examined further by the Commission on the receipt of report of FOR study."

(c) Some consumers have submitted that KVAh billing has a totally non-technical approach since all the power purchase is done in kWh units only. All open access transactions, loss calculations, energy balance are done in kWh only. KVAh can be consumed by a simple capacitor connected to the supply system without any active load and consumers shall be billed for KVAh units without any purchase by CSPDCL for those units.

2.46 The fixed and energy charges for all HV consumer categories should be kept the same except for HV-5 category of consumers for whom the fixed charges should be half of fixed charges for the other categories.

2.47 Currently, the mini steel plants have to pay 8% electricity fee, which we suggest be abolished since there are currently only 35 such steel plants paying this fee of 25 paise per unit.

CSPDCL's Reply

2.48 On account of the rise in inflation in the past year, there has been a subsequent increase in the supply cost. So, the increase in the tariff has become inevitable. If the necessary increase in tariff in not made the company's loss would further increase. In order to encourage small industries, the tariff has been kept as low as 25 H.P. The segregation of consumers into various sections comes under the purview of the Commission. Hence, the tariff is decided on the basis of the various sections as formed by the consumers.

2.49 With regards to the proposal for introduction of kVAh billing system, CSPDCL has submitted that–

a) CSPDCL stated that the kVAh billing system is a more accurate and cost effective system to extend the uniform incentive/penalty on account of high or low PF and is now being adopted fast by many states such as Uttar Pradesh and Delhi. Other states like Orissa and Andhra Pradesh have also proposed implementation of kVAh billing.

b) It also stated that whether it is computation of average cost of supply or T&D losses, both could be computed more accurately with kVAh units in place of kWh units. The only reason for computing ACOS and T&D losses in terms of kWh units is that the recorded data available are in kWh units and nothing more.

c) CSPDCL further added that the transactions with generators are accounted normally in terms of KW and kWh units because the generators primarily generate power in terms of KW and kWh units only. It is the load, which leads or lags the current vector from voltage vector and thus requiring power in kVA and kVAh units. In case, the voltage and current vectors are aligned, the kVA shall be the same as KW. The load is creating the power factor and developing the requirement of kVA and kVAh for consumption that is why the tariff for the consumers, the owner of load, is proposed in terms of kVAh units.

Commission's View

2.50 Various consumer groups have requested for the removal of non-telescopic slab tariff as the same is leading to high cost on even marginal increase in consumption over the lower slab. In order to provide relief to the consumers, the Commission has decided to re-introduce telescopic slab tariff for LV domestic consumers and LV non domestic consumers.

2.51 The implementation of KVAh billing has several advantages and is beneficial to both the licensee and the consumers in the long run. The Commission also notes that the KVAh metering is already in place for Railway traction category (EHV) Further, the KVAh consumption based billing for energy charge has already been adopted by other states such as Uttar Pradesh, Uttaranchal, Delhi, etc..

2.52 The Commission has decided not to delay the introduction of KVAh billing for HT consumers any further and has decided to implement KVAh based billing for HT consumers in the state in a phased manner beginning FY 2012-13. To begin with, KVAh based billing shall be carried out for EHV consumers and consumer of HV-8 and HV-10 category for FY 2012-13 onwards. KVAh based billing shall be introduced for remaining HV catgory of consumers in subsequent years. While the Commission intends to introduce KVAh billing for all HT consumers it has decided to delay the implementation of KVAh tariff for remaining HV consumers so as to allow the smaller HV consumers to prepare for implementation of such a mechanism.

2) Railway traction tariff

2.53 The South East Central Railway has submitted that the Railways is a bulk traction supply consumer of CSPDCL and deserves special consideration for fixing Railway traction tariff as it is one of the largest consumers of the company. It has submitted the following with regards to the petition filed by CSPDCL:

(a) **Abnormal Hike in traction tariff:** The consumer has submitted that to the retail supply tariff within ± 20% of the cost of supply, as prescribed by Tariff Policy, CSPDCL has raised the cost of supply abnormally, which is highly objectionable. Further it has submitted that even after being directed by the Commission, CSPDCL has failed to give the voltage-wise and consumer category-wise cost of supply. Hence, traction tariff proposed by CSPDCL through this ARR does not reflect cost of supply for HT/EHT consumers.

The consumer has also submitted that CSPDCL has proposed a relatively lower tariff for the Steel Industry as it is the core sector in the State, accounting for a large proportion of the total sales of CSPDCL. However, as per the ARR, sales to Railways are about 3 times that of Steel Industries. Giving a special consideration to the Steel sector by keeping lower tariff while increasing the tariff for Railways is not justified given that the Railways is wholly engaged in public service and contributes to the economic growth of the country.

(b) **Tariff other than traction:** The consumer has submitted that the power supply for non traction purpose in Railways is availed at LT (415 V) and HT (11 KV & 33 KV). Non traction load of Railway is a mixed load which covers Offices, stations, residential colonies, school, hospitals, street lighting; pumps, workshops, loco sheds etc. In LT, bifurcation for domestic and commercial load is available which is charged at different tariff rates. But in HT tariff, rates are same for all types of loads. Hence even for domestic load in HT Railways is paying more money towards energy charges as compared to other domestic consumers. Separate tariff for Railways non traction should be formulated.

(c) **Delivery of bills:** The consumer has submitted that the Delivery system of LT bills of CSPDCL at Railways offices is not streamlined. Railways receive 25 HT bills and 285 LT bills every month from CSPDCL. Generally, these LT bills are received just before the last date of payment and Railways has to pay late payment charges. Being a Govt. organisation Railways is required to pass these bills after detailed scrutiny by the accounts department which takes a minimum of about 5-6 days. If CSPDCL devises a system of delivering LT bills to Railway at least 10 days in advance and makes a single window system for depositing cheques, it will become easy for Railways to pay the bills timely.

CSPDCL's Reply

2.54 CSPDCL in its reply to the objections raised by the South East Central Railway has submitted the following –

(a) CSPDCL has replied that although SEC Railway itself confirms that section 61 of the Act prescribing that tariff should progressively reflect the cost of supply of Electricity and the National Tariff Policy prescribed that cross-subsidy level should be restricted within ±20% of average cost of supply, CSPDCL cannot act unlawfully and hence, this hike cannot be objected. It also added that the hike in tariff depends upon the cost of input constituents to the distribution business like the cost of Coal, Petroleum products, Steel, Aluminium, Manpower, financing and other constituents required for Generation, Transmission and Distribution of electricity and since these costs have increased substantially, the cost of electricity supply to the consumers could not be restricted from rise. CSPDCL also confirmed that it has submitted the details of all the expenditures in its Tariff petition to arrive at ARR. Under such circumstances, it shall not be a practical proposition to expect no hike in tariff of CSPDCL.

(b) CSPDCL has replied that the tariffs for commercial activities are historically considered higher than industrial activities and where the mixed activities are undertaken from the consumption of power the tariff for such mixed activities are also kept little higher than the tariff for Residential consumption. Also, for LT consumers, the separate domestic and non-domestic categories in tariff are indeed available which can well be availed by any consumer including Railways if satisfies the eligibility criterion. But, in the case of Railway colonies, the LT distribution network is of Railways itself. So, CSPDCL only supplies at single HT point of supply and any saving on account of supply at HT and non-maintenance of supply network is reflected in the reduced average cost of supply and ultimately benefits to the consumers.

(c) CSPDCL has stated that although, this is not a tariff related issue but, it appears to be a genuine difficulty and hence, CSPDCL will take up this matter separately to facilitate the Railways.

Commission's View

2.55 The Commission has taken note of the objections raised by the Railways and has also examined the replies submitted by CSPDCL to the same. The Commission's views on the matter raised by the Railways are noted below–

(a) The Commission has set the tariff for FY 2012-13 after taking into account the various representations by consumers and, the total revenue requirement of the petitioner for FY 2012-13, approved after prudence check of the data submitted by the petitioner, the cross-subsidy levels prevailing in the state and views of other stakeholders. The Commission is of the view that the consumers must not be subjected to a tariff shock.

(b) General purpose non residential (HV-6) category tariff is applicable for supply of establishment such as Railways (other than traction), hospitals, offices, hotels, shopping malls, educational institutions and other institutions etc. having mixed load or non industrial and / or non- residential load. Thus, this tariff is commonly applicable to all the concerned as stated above. It will not be proper to discriminate and provide a separate tariff for the Railway for the purposes which are other than tractions.

(c) The Commission notes with approval that CSPDCL has agreed to take up the matter separately. CSPDCL should make all efforts for timely delivery of energy bills and provide a single window for depositing cheques.

3) O&M Expenses

2.56 Objectors have submitted that O&M expenses are considered as controllable expense which clearly means once these expenses are fixed by the Commission the utility has to operate under the norms specified and any efficiency/inefficiency on account of these heads should be treated as per the provisions of the MYT regulations. CSPDCL has submitted O&M expenses for FY 2010-11 at Rs. 775 Cr as opposed to Rs 711 Cr approved by the Commission. Since it is a controllable expense, any increase in it cannot be allowed.

2.57 Actual O&M expenses for the first half of FY 2011-12 have not been submitted instead an overestimated projection has been submitted, thus inflating the ARR for FY 2011-12 (projections) and based on this, an inflated ARR for FY 2012-13 (projections).

CSPDCL's Reply

2.58 CSPDCL has replied that the Respondents must be aware of the fact that the Employee expenses constituting the major proportion of the O&M expenses of Public sector undertakings are governed with the pre-decided sets of rules and regulations by the appropriate Govt. and Undertakings are not free to violate them. Therefore, the expenses which are compulsory to incur by the Licensee are only incurred as per applicable laws.

Commission's View

2.59 As per Regulation 5.3 of the CSERC MYT Regulations, 2010 the Operation and Maintenance expenses, including employee expenses, A&G expenses and R&M

expenses are a controllable item. Regulation 13.3 of the said regulations also allows for truing up of expenses of the licensee on account of inflation.

2.60 In accordance with the CSERC MYT Regulations, 2010, the Commission has decided to revise the O&M expenses for FY 2010-11 reasonably. The details of O&M expenses allowed to the petitioner in each year are contained in the relevant sections of this Order.

4) Tariff Shock

2.61 The consumers have submitted that the proposed tariff shall lead to a tariff shock to the consumers. CSPDCL has projected an increase in average cost of about 58% in FY 2011-12 and more than 100% increase is proposed in FY 2012-13 which is very high by any standard and any corresponding increase shall lead to a tariff shock to the consumers.

CSPDCL's Reply

2.62 CSPDCL has replied that the comparison resulting Tariff shock itself is based on incorrect data base and therefore, not true. The Actual Average Cost of Supply as approved by the Commission at Page 210 of the Tariff order dated 31-03-2011 Rs. 3.39/unit for 2010-11, Rs. 4.02/unit for 2011-12. Therefore, the indicated hike termed as 'Shock' is misleading. Also, if the respondent wants to compare the data with other states, it can do that with all the states that have filed the tariff with their respective Commissions. The tariff proposal by the CSPDCL for the State is quite less than other states.

Commission's View

2.63 The Commission has set the tariff for FY 2012-13 after taking into account the various representations by consumers, the total revenue requirement of the petitioner for FY 2012-13, approved after prudence check of the data submitted by the petitioner, the cross-subsidy levels prevailing in the state and views of other stakeholders. The Commission is of the view that the consumers must not be subjected to a tariff shock.

5) Determination of cost of supply and progressive reduction of cross subsidy

2.64 The consumers have submitted that the cost of supply is an important parameter, required to determine the cross subsidy levels in electricity tariff. The cost of supply should be evaluated based on supply voltage of consumer and should be separately evaluated for different categories of consumers in the state. The average cost of supply method, which is being followed as of date, does not give correct picture of the actual cost of supply and can only be considered as an intermediate arrangement.

2.65 CSPDCL should be directed to determine category wise and voltage wise cost of supply. The company should also finalise a roadmap for reduction of cross subsidies in the MYT control period based on category wise cost of supply. CSPDCL should resubmit the proposal considering such cost of supply and the road map for reduction of cross subsidies.

CSPDCL's Reply

2.66 CSPDCL further replied that the cross subsidy is never decided on the basis of cost of supply, but is decided on the basis of social requirements and CSPDCL has already undertaken the study for determining the actual cost of supply for each consumer category and voltage levels and has appointed independent consultants for the same. The accuracy of cost to serve can further be improved by determining the cost to serve to individual consumer because it is different for each consumer.

Commission's View

2.67 The Commission agrees with the view of CSPDCL that cross subsidy is never decided only on the basis of cost of supply.

6) Violation of MYT Principles

2.68 The Commission has laid down principles for MYT framework in CSERC MYT Regulations 2010 which entail that the multi-year tariff determination process and principles are different from annual tariff determination. The Regulations state the figures approved at the start of Control Period can be corrected only on the basis of certain fix parameters and norms and not on the basis of any submission of the Licensee.

CSPDCL's Reply

2.69 CSPDCL has submitted that the CSERC MYT Regulations 2010 allow for only setting of tariff for the ensuing year. The costs of the distribution business are largely subject to change on account of actual performance and behavior of consumers also and therefore such changes cannot be estimated well in advance for the entire control period.

Commission's View

2.70 The CSERC MYT Regulations 2010 categorize costs for a distribution licensee into controllable and uncontrollable expenses. The Regulations also provide for Annual Performance Review for each year of the control period to take into account the revision in the controllable and uncontrollable costs of the licensee. Regulation 11.6 of the said Regulations lays down the scope of the Annual Performance Review:

"11.6 … Upon completion of the annual performance review, the Commission shall pass an order recording:

(a) The approved forecast of ARR and ERC for such financial year including approved modifications, if any.

(b) The approved aggregate gain or loss to the licensee on account of uncontrollable items and passing through of such gains or losses as envisaged in regulations 5.9 and 5.10.

(c) *The approved aggregate gain or loss to the licensee on account of efficiency linked controllable items and sharing of such gains or losses as envisaged in regulations 5.9 and 5.10.*

(d) *Truing up of ARR items of previous year(s), if any.*

(e) *The approved modifications, if any, to the forecast for the remainder period of the control period"*

7) Provisional true up for FY 2010-11

2.71 The petition for provisional true-up of revenue and expenses for FY 2010-11 of CSPDCL is based on actual information available as final accounts are still under finalization. It is surprising that even the final accounts for FY 2010-11 were not ready till November 30, 2011 at the time of filing the petition, leaving aside the audited accounts.

CSPDCL's Reply

2.72 CSPDCL has submitted that since the finalization of Regional accounts at company level involves finalization of regional accounts in the field and then compilation after due examination that is why it takes time to finalize the accounts and audit thereafter.

Commission's View

2.73 The Commission agrees with the respondent that the power companies including CSPGCL, CSPTCL, SLDC and CSPDCL must ensure that their accounts are finalized and audited at the earliest. However, considering the practical difficulties faced by the petitioners, the Commission has carried out provisional truing up for CSPGCL, CSPTCL, SLDC and CSPDCL for FY 2010-11 which is subject to the final truing up once the audited accounts of the year are made available.

8) Statutory Audit of Accounts

2.74 In the present petition, no clear statement has been made regarding the status of Audit of Annual Accounts. In absence of Statuary Audit of accounts, data provided by CSPDCL cannot be verified.

CSPDCL's Reply

2.75 CSPDCL has submitted that in its previous tariff order the Commission has carried out final truing up for FY 2005-06 and FY 2006-07 on the basis of the audited accounts of CSEB for the respective year.

Commission's View

2.76 In its previous tariff order, the Commission has carried out final truing up of the ARR for FY 2005-06 and FY 2006-07 for which statutory audit was reported to be completed by the Accountant General (Audit) (AG Audit, for short).

2.77 In the present petition, none of the companies have submitted proposal for final true up of the FY 2007-08 and onwards. During the technical validation sessions, the Commission was informed that since the AG Audit report in respect of FY 2007-08 and onwards was not received, hence, proposal for final true up for FY 2007-08 and onwards has not been submitted by the power companies in their petitions. The issue regarding AG Audit reports was raised by various stake holders during public hearings held on March 2, 2012 and March 3, 2012. This issue was also raised by the members of State Advisory Committee during the meeting on March 13, 2012. A reference was made to power companies vide letter dated March 15, 2012 for informing the status regarding AG Audit report. In response, the Chhattisgarh State Power Holding Co. Ltd. (in short, CSPHCL) vide letter dated March 20, 2012 forwarded the copy of the Audited report (AG Report, for short) of Annual accounts of the erstwhile CSEB for FY 2007-08. It has also informed to the Commission that audit of accounts for the FY 2008-09 (up to Dec. 2008) of the erstwhile CSEB has also been completed by the AG (Audit); however the audit certificate is awaited. It has been noted by the Commission that the AG (Audit) has forwarded the copy of AG report of accounts for FY 2007-08 vide letter dated October 24, 2011 and same was received in the office of the Managing Director, CSPHCL on November 3, 2011. Therefore, taking serious view in the matter, the Commission has directed the power companies to look in to the matter and submit a report regarding non filing of final true up petition for FY 2007-08 up till now. In absence of submission of petitions for final truing up for FY 2007-08 and FY 2008-09, the Commission could not carry out final truing up for FY 2007-08 and FY 2008-09.

9) Demand Charges

2.78 As a principle, fixed cost (expenses) of Distribution Licensee is recovered through Fixed (Demand) Charges and Variable Expenses are recovered through Energy Charge. Generally Fixed Cost is associated with Monthly Minimum Guarantee Charges to be recovered from consumers.

2.79 However, the prevailing or even proposed demand charges are not sufficient to recover the complete fixed cost of CSPDCL. Insistence of CSPDCL on higher demand charges is not understandable as the un-recovered portion of fixed cost may be loaded on energy charges, thus recovering all expenses. The Consumers have requested the Commission for the reduction in Demand Charges because such high Demand Charges are not sustainable for the industries.

CSPDCL’s Reply

2.80 CSPDCL has submitted that except power purchase cost, no other cost incurred by it is dependent on sale of electricity. Whether any energy is sold or not all costs other than power purchase cost are borne out by the licensee in full just to meet its universal service obligation.

Commission’s View

2.81 Considering the provisions of the Act and the Tariff Policy, the issue has been appropriately addressed by the Commission in this order.

10) Clarification from Ministry of Power regarding retail supply of electricity to Consumers having load 1 MW and above

2.82 Ministry Of Power, Govt. of India under consultation with Ministry of Law has issued interpretation of several clauses pertaining to Open Access of Electricity such as Section 42, 45, 49 ,62 & 86 of the Electricity Act' 2003 vide its letter dated 30.11.2011. According to this letter:

(a) All 1 MW and above consumers are deemed to be Open Access Consumers with immediate effect.

(b) State Regulator has no jurisdiction over fixing the energy charges for them.

(c) If such consumers want power from Discom, then the terms and conditions of supply would be determined in terms of section 49 of Electricity Act' 2003..

2.83 Due to the present tariff structure and stagnant economic conditions, many of such consumers have already applied to reduce their supply by about 150 MW. If this trend continues then there will be only few such takers of power from CSPDCL.

CSPDCL's Reply

2.84 The directions of Govt. of India are not an alarming message to the Discoms or State Commission rather it more adversely affect the remaining consumers. If no cross subsidy is available from 1 MW and above contract demand consumers to reduce tariff for remaining consumers besides in absence of more consumption at higher voltage levels the average cost of supply shall increase substantially.

Commission's View

2.85 The Commission is of the view that this aspect needs detail consultation with the distribution licensees of the State, stakeholders and the public and has decided to have such consultation , For the present, the Commission has decided to fix tariffs for all the tariff categories as has been done in previous years.

11) Losses caused by the delayed Filing of MYT Petitions in FY 2010-11

2.86 The Commission could not pass the Tariff Order for FY 2010-11 because of the long delay committed by the Licensees in filing the said tariff and ARR petitions.

2.87 Further, CSPDCL has reported a revenue deficit of about Rs.540cr during FY 2010-11 at prevailing tariff charges which was caused due to delay in filing of Tariff and ARR Petitions. CSPDCL has also proposed to heavily increase the retail tariff to recover the said losses from the pockets of consumers.

2.88 National Tariff Policy clearly states as under:

"8.1.7 ……It is desirable that requisite tariff changes come into effect from the date of commencement of each financial year and any gap on account of delay in filing should be on account of licensee."

Further Electricity Act'2003 provides as under:

"86.4 in discharge of its functions, the State Commission shall be guided by the National Electricity Policy, National Electricity Plan and Tariff Policy published under sub-section (2) of section 3."

2.89 Therefore, it is quite clear that loss of Rs.540cr during first year of MYT Period (i.e. FY 2010-11) cannot be loaded on consumers because it has been caused due to non-compliance of directives of the Commission and much delay in filing the MYT Petition.

CSPDCL's Reply

2.90 The Commission modified the MYT Regulations 2008 and notified the same in January 2010. After observing due regulatory process the business plan of CSPDCL was approved by the Commission in June 2010. The MYT petition could only be prepared and filed on October 18, 2010.

2.91 Further, the consumers have not suffered any loss due to the delay and rather enjoyed lower tariff for more than a year.

Commission's View

2.92 Due to the change in the industry structure of the erstwhile CSEB, the Commission had to amend the MYT regulations post the restructuring of CSEB. Accordingly, the Commission after many deliberations came out with the revised MYT Regulations in January 2010. Thereafter, the Petitioner filed the Business Plan for the MYT Control Period on which the Commission pronounced Order in July 2010. Subsequently, the Petitioner filed the MYT Petition for the Control period only by October 2011. Since there were many gaps in the petition, the Commission after prudence checks admitted the Petitions only by December 2011. Because carrying cost has not been demanded / allowed the consumer has not suffered any loss due to this aspect.

12) Retail Sale of Electricity and Revenue Realization

2.93 In the last Multi Year Tariff Order, the Commission had decided an average tariff hike of 14.1% for FY 2011-12 and the hike for industrial consumers was about 20-25%. But CSPDCL is reporting only an increase of about 11.4% in its revenue realization, reason for which is not explained by CSPDCL.

CSPDCL's Reply

2.94 CSPDCL has replied that power consumption is a prerogative of the consumers and cannot be dictated by any Commission or licensee. Commission approves the consumption /sale on the trend estimation which is bound to change in the actual. Further, the declared hike of 14% in the previous tariff order is not correct. An increase of Rs 3.04/unit to Rs 3.39/unit as approved by the Commission does not amount to 14% increase.

Commission's View

2.95 The Commission in its previous tariff order has increased the tariffs for CSPDCL such that there is an increase in average revenue of the licensee by 14%. (ACOS for 2011-12 is Rs. 3.78)

2.96 Further, CSPDCL has correctly submitted that power consumption is a prerogative of the consumers and cannot be dictated by any Commission or licensee. The Commission only approves the consumption /sale on the trend estimation which may change in the actual.

13) Power Purchase from Central Generating Stations

2.97 CSPDCL, in its present petition, has not provided station-wise details of power purchase and its cost for FY 2010-11, FY 2011-12 and FY 2012-13. The average power purchase cost from CGS during FY 2010-11 reported by CSPDCL is Rs.2.29/unit aggregating Rs. 955.20 Cr. The consumers have contested that the average cost is only Rs.1.90/unit aggregating only Rs 810.50 Cr.

CSPDCL's Reply

2.98 CSPDCL has submitted that the power purchase cost for CGS as submitted by it are based on the bills of power purchase, payment made and revised energy account finalized by RLDC. CSPDCL has neither acknowledged nor concurred the data provided by the consumer as the source of the information is not clear.

Commission's View

2.99 The Commission has approved the power purchase cost for from CGS during FY 2010-11 at Rs 816.74 Cr after prudence check of the information submitted by the petitioner in both the tariff petition and the additional submissions made to the Commission. The details of the same are contained in the relevant sections of this Order.

14) Power Purchase from JSPL

2.100 In the present petition, regarding power purchase from JSPL, CSPDCL has stated as under:

"4.8.10 (page 53) CSPDCL has a long term PPA with JSPL for 150 MW of power. Since PPA was valid up to Oct.'11, therefore actual power available during first 6 months and 1 month projected power purchase been considered for estimating power availability from JSPL during FY11-12

"4.8.11 (page 53) CSPDCL has entered under short-term purchase of power from JSPL which would be considered along with other short-term sources of power for the balance months of FY11-12 & FY12-13"

2.101 From the above it is understood that 150 MW of Long-term power (@Rs.2.37 per unit) was available from JSPL for first 7 months in FY 2011-12 and then, short-term power is available for remaining 5 months of FY11-12 (@Rs.2.94 per unit) and entire FY 2012-13 (@Rs.3.10 per unit).

2.102 But, in the present petition itself, CSPDCL has stated contrary to above:

"4.7.2 (page 49) Apart from the State and Central Generating Stations, CSPDCL also has 150 MW contract of power from JSPL which has been extended up to June'2012"

CSPDCL's Reply

2.103 CSPDCL clarified that the long term power purchase agreement between the company and JSPL expired in October 2011. It has also submitted that the agreement for short term power purchase from JSPL has been executed at the rate of Rs. 3.00 /unit for the year 2011-12 with validity upto June 2012. Further, clause 21 of the said agreement provides for safeguard to change in rate as per the approval of Commission for FY 2012-13 and stipulates that :-

"The terms and conditions (except rate) as mentioned in the CSERC order dated 30.04.2010 passed in suo motu petition No.05 of 2010 & order dated 15.07.2011 passed in suo motu petition No.23 of 2011 are applicable for this PPA. Any change in the existing rates and terms and conditions of power purchase of licensee, by CSERC will be made applicable to this power purchase agreement. In that case supplementary PPA to incorporate such changes/ modification shall be executed between licensee and company."

Commission's View

2.104 The Commission has verified the information submitted by the Petitioner, including the PPA for short term power purchase executed between CSPDCL and JSPL and accepts the submission made by CSPDCL.

2.105 The Commission would however like to re-iterate that the rates for short term power as approved by the Commission are only ceiling rates and the petitioner is supposed to procure power within the ceiling rate approved by the Commission.

15) Legality & Jurisdiction of the Commission regarding Suo-moto Action on Short Term Power Purchase for FY 2012-13

2.106 The Commission has registered a suo-moto petition as no.07 of 2012(M) in the matter of Short Term Power Purchase for FY 2012-13 by CSPDCL on the proposal submitted by it (i.e. CSPDCL) and it has invited suggestions/objections from the public.

2.107 The Commission has not provided the Concept/ Staff Paper emphasizing the need of such suo-moto action on such proposals and Revenue Impact of such proposals. CSPDCL has also not provided any details of its Power Purchase Requirement and other details.

2.108 Short Term Power Purchase is an integral part of the determination of Aggregate Revenue Requirement (ARR) and since CSPDCL has already filed a petition before the Hon. Commission for determination (revised projection) of ARR for FY 2012-13 including the required quantum and cost of short term power to be purchased by it, therefore, filing a separate suo-moto petition on the same matter is a parallel and duplicate exercise, and hence, futile and unwarranted.

2.109 It is not understandable why the Licensee has moved twice on the same subject matter – once through the Tariff and ARR Petition for FY 2012-13 which was publicly notified on 31.12.2011 and then again through a letter dated 17.1.2012. Since the proposal moved through the letter dated 17.1.2012 has an impact on the ARR, therefore it cannot be viewed separately and parallel.

CSPDCL's Reply

2.110 Suo motu petition No 7 (M) of 2012 is an independent petition instituted by the Commission to decide the ceiling rate of short term power purchase during FY 2012-13 by CSPDCL. Any objection may be on the maintainability and/or jurisdiction can be raised under the same petition only.

Commission's View

2.111 The Commission agrees with the response of the Petitioner that the said suo motu petition is independent of this petition and needs to be taken up separately. The Commission has estimated the quantum of short term purchase during FY 2012-13 and power purchase cost for the same in the order after scrutiny of the available data.

16) Distribution losses

2.112 In the present petition, CSPDCL is reporting distribution losses at 31.56% during FY 2010-11 against the approved level of 34%. The data provided by CSPDCL in the petition regarding the level of losses is not consistent. The circle-wise losses of CSPDCL have been submitted at 34.37% in table R2B.

2.113 The consumers have further submitted that CSPDCL should start monitoring losses separately as technical and commercial losses, for this purpose system studies should be carried to obtain such loss figures.

2.114 While the collection efficiency of CSPDCL has improved over the last few years, the outstanding arrears of the company are very high. CSPDCL has reported collection efficiency from HT consumers of only 78.7% in Durg (O&M) Circle and 48.2% in Jagdalpur (O&M) Circle against current demand, reasons for which are not specified.

2.115 As per the Report of Abraham Committee on reduction of AT&C losses that is being closely followed nation-wide, a targeted reduction of 4%, 3% and 3% should have been given for FY 2010-11, FY 2011-12 and FY 2012-13 in place of approved reduction of 0.32%, 2% & 2% respectively. The target given to the licensee for the Control Period is very liberal.

2.116 Surguja circle has 42% and 50% losses in urban and rural areas respectively. The main reason being that there are only two 132 kV sub stations in Bishrampur and Bishanpur because of which the lines are too long leading to low voltage and loss. The approved substations in Balrampur and Pratappur need to be made and the proposed stations in Ramanujnagar, Bhaiyathan, Batauli and Lakhanpur need to be approved and made functional

CSPDCL's Reply

2.117 CSPDCL in its reply stated that circle wise loss is a different data than the loss data of the state and it can never be the arithmetical sum of the circle wise losses because all the transactions at the state level can never be a part of the of circle level transactions so the two are not comparable.

2.118 CSPDCL has submitted that admittedly in some circles the losses are extremely high for which necessary steps like replacing of bare conductor lines by AB cable, adoption of HVDS, transformer metering to assess losses have been taken up. However, with the fast increase in LT network under RGGVY and load thereof, the clear impact of reduction is undermined. CSPDCL is determined to reduce the losses at circle level also and is working sincerely towards it.

2.119 As far as target for distribution losses is concerned the CSPDCL itself has proposed to accept a higher target than prescribed.

Commission's View

2.120 In its MYT Order, the Commission has set the target for distribution losses in the 33 kV systems for FY 2011-12 and FY 2012-13 at 32% and 30% respectively. CSPDCL has submitted that considering the actual distribution losses of 31.56% attained by the utility in FY 2010-11 are lower than the target distribution losses for FY 2011-12 i.e. 32%, for the purpose of projection of power purchase cost it has considered distribution losses at 31% and 29% for FY 2011-12 and FY 2012-13, respectively.

2.121 The Commission has determined the distribution losses for FY 2010-11 in the 33 kV system of CSPDCL at 33.24% as opposed to the 31.56% as submitted by CSPDCL in the tariff petition.

2.122 Since the Commission has determined the actual distribution loss level for FY 2010-11 at 33.24%, which is higher than target loss level for FY 2011-12, the Commission has considered the distribution losses for FY 2011-12 and FY 2012-13 as per the target approved for the petitioner in the MYT Order (i.e. 32% for FY 2011-12 and 30% for FY 2012-13) for projection of the quantum of power purchase in the respective year.

2.123 While the distribution losses approved i.e. 33.24% for FY 2010-11 are marginally lower than the distribution loss target approved for the licensee for the year i.e. 34%; the Commission believes that CSPDCL should take proactive measures to reduce the distribution losses at a higher rate in the future years.

17) Recovery from Theft

2.124 CSPDCL has projected recovery from Theft Case and malpractices at only 0.15%, 0.13% and 0.08% of total revenue during FY 2010-11, FY 2011-12 and FY 2012-13. The consumers have raised the question that does this mean that CSPDCL is going to handle such cases quite reluctantly.

CSPDCL's Reply

2.125 CSPDCL has submitted that the projections given under the petition are for direct theft of electricity. In direct theft cases CSPDCL officers are required to file case before the special court. Therefore in such cases the recovery of amount billed is predominantly not considered by the persons involved; which leads to lower collections. CSPDCL has already prepared a scheme for company employees to promote the zeal for reduction of losses.

Commission's View

2.126 The Commission believes that CSPDCL will make more efforts for controlling the theft of electricity, both the direct theft of electricity and other malpractices in addition to direct theft of electricity.

18) Consumption of BPL Consumers

2.127 CSPDCL is intentionally projecting very high release of new BPL Connections in order to establish need for more cross subsidy in the system so that it can project higher losses, finally resulting in tariff hike for subsidizing consumers.

2.128 BPL consumers should be billed at subsidized tariff up to a consumption of 30 units/month/connection and any consumption beyond this should be billed at par with other domestic subcategory.

CSPDCL's Reply

2.129 CSPDCL has submitted in its reply that the achievement for new BPL connections during FY 2011-12 in the petition was upto September 2011 as the petition was filed in November 2011. While upto December 2011 CSPDCL has already released 103748 new BPL connections during FY 2011-12 against the target of 142500. The balance connections will be released during the remaining three months.

2.130 With regards to the consumption of BPL consumers, the Commission has already prescribed the capping on consumption of subsidized categories at lower tariff as desired by ATE. The BPL consumers are availing the benefit of subsidy for 30 units/month from State Govt. only; for remaining consumption, if any, the BPL consumer has to bear the burden.

Commission's View

2.131 In continuation of the principle adopted by the Commission in its MYT Order, dated 31.03.2011 there shall be no separate category for BPL consumers for FY 2012-13 also. The Commission has projected the sales to all consumers in the domestic consumers by considering the past trend in increase in sales in the category.

2.132 All domestic consumers including BPL card holders shall be provided a domestic connection. The State Govenment may provide a revenue subsidy to all BPL consumers in the state. Accordingly, all BPL card holders may be entitled for subsidy as per Govt. of Chhattisgarh Order. Each BPL card holder will be eligible for the subsidy irrespective of their consumption or connected load. The consumers in the BPL category shall be charged for their consumption at the rate specified by the Commission in this tariff order.

19) Agricultural Consumption

2.133 CSPDCL has projected that it will provide connections to 10000, 20000 and 20000 new agriculture consumers during FY 2010-11, FY 2011-12 and FY 2012-13 respectively. Above claim or projection seems to be quite high looking into their past performance as CSPDCL had released only about 14809 new pump connections in FY 2009-10 and 6000 in FY 2010-11 (till Sept.'10). Therefore projections for FY 2011-12 and FY 2012-13 are on much higher side and are not achievable.

2.134 CSPDCL has suggested that consumption of agriculture pumps should be considered as 166 units/HP/month with an average load of 4 HP per pump. This amounts to a load factor of 30.90%, which is very high as compared to earlier projections. Further CDPDCL has presented data for FY 2010-11 in table R-12 in which 2,44,791 no. of pump connections has consumption as 1600 MU. This provides agriculture pumps with a consumption of 136 units/HP/month only.

2.135 CSPDCL has projected recovery of fixed charges from Agriculture Consumers as only Rs.14.47 Cr which if recalculated for a given load of 808,793 kW at Rs.20/HP/Month of Fixed Charges, gives Rs.25.10 Cr. Thus CSPDCL has shown a false loss of Rs.10.63 Cr.

CSPDCL's Reply

2.136 In its reply CSPDCL has submitted that it has added approximately 19210 agriculture pumps in FY 2011-12 till December and the target of 20000 consumers was conservative. CSPDCL hopes to add 25000 pumps during the year. Further, CSPDCL has submitted that it has further provided the explanation for projecting agricultural consumption at 166/units/HP/month.

2.137 It has also submitted that there was an inadvertent error while calculating fixed charges for agriculture consumers in FY 2012-13.

Commission's View

2.138 The Commission appreciates the efforts made by CSPDCL for providing connections to the agricultural consumers in the state. The Commission has projected sales to agriculture consumers considering the past trend in sales to these consumers and the projected number of agricultural pumps.

2.139 The Commission has estimated the revenue from fixed charges from agriculture consumers for FY 2012-13 based on its estimates of sales to these consumers and the revised tariff for agriculture approved in this Order.

20) Contribution to Pension and Gratuity Fund and its Functioning

2.140 CSEB/Successor companies should explain the need to maintain a fund of Rs.2500 Cr as Pension Fund (PF) and for making further contributions to the fund in the future. The fund is not properly managed. In the absence of a dedicated and professional fund manager the companies are unable to earn an assured minimum return on investment; while on the other hand, the operating expenses of the fund are increasing.

CSPDCL's Reply

2.141 CSPDCL has submitted that the pension benefits of the employees are the statutory liability of the company governed with different set of rules and regulations that the Electricity Laws. All the statutory liabilities of employees are the natural pass through under the expenses of company. In case the P&G fund would not have created then all the liability, which is being met through the fund, would have to be catered through tariff only. The consideration behind such a trust was that once it becomes self sufficient then no more contribution will be required and the burden of pension liabilities of employees shall be shared by it only. But it could be funded fully so far. Now, the annual outgo is more than the contribution so the corpus is depleting.

2.142 The investments from these trust funds cannot be subjected to any risk and so the Govt. of India has prescribed the guidelines for investments from trust funds which are followed by the trust strictly.

Commission's View

2.143 The Commission appreciates the concerns/views raised by the public regarding need for Pension and Gratuity Fund. However as per Accounting Standards-15 on Employee Benefits, it is mandatory for the utility to maintain a fund to make payments to the employees on account of pension and gratuity. The utilities are required to make annual contribution to the fund as allowed by the Commission from time to time. Keeping in view the actuarial valuation reports, the Commission has allowed the reasonable contribution to be made to the fund.

21) Working Capital

2.144 Computation of Working Capital Requirement should be made as per the provisions under section 25.1(b) of MYT Regulations' 2010 which is not done in the present petition. Further, in the above referred Regulation 25 of MYT Regulations 2010, there is no definition of O&M Expenses of Distribution Licensee.

2.145 There is an ambiguity in the provisions of MYT Regulations 2010 regarding Working Capital Requirement. Further, in the MYT Order, the Commission had wrongly taken receivables equivalent to two months average revenue instead of two months of fixed cost as specified in the Regulations.

2.146 Further, Employee Cost which is generally a part of O&M Expenses should not include Contribution to Pension and Gratuity Fund as this is a 'contribution' and not an 'expense'. Such unjustifiable inclusion increases the working capital requirement by approx Rs.18 Cr and interest burden by about Rs. 2.7 Cr which is borne by the consumers.

CSPDCL's Reply

2.147 CSERC MYT Regulations 2010, section 42(f) clearly enumerates interest on working capital as components of ARR. In the same Regulations under 25.1(b) and 47.2, the Commission has prescribed the way to calculate the working capital requirement. CSPDCL has calculated the working capital requirement on the same basis as prescribed by the Commission and it has no connection with the amount of working mention in the accounts.

2.148 There is no ambiguity in the CSERC MYT Regulations with regards to the normative working capital requirement.

Commission's View

2.149 The Commission has computed the working capital requirements of the licensee in accordance with the CSERC MYT Regulations, 2010. Further, the contribution to Pension and Gratuity fund has not been included in the computation of working capital following the methodology adopted by the Commission in its previous Order.

2.150 There is no ambiguity in the CSERC MYT Regulations with regards to the normative working capital requirement. The Regulation 47.2 (c) which is specific to the distribution licensees prescribes that -

"47.2 For the purpose of working out interest, working capital of distribution licensee shall cover:

(a) Operation and maintenance expenses for one month;

(b) Maintenance spares @ 15 % of O& M expenses; and

(c) Receivables equivalent to two month's average revenue."

2.151 The details of interest on working capital allowed to the petitioner each year are contained in the relevant sections of this Order.

22) Interest on consumer security deposit

2.152 In the present petition, CSPDCL has informed (Form R7) that the security deposit from consumers is of three types – first is 'non-interest bearing' and second is 'interest bearing' and third is 'temporary service connection deposit'. CSPDCL has shown more interest payment to consumers on security deposit which should not be allowed.

2.153 Further, the amount of such security deposits should be reduced while calculating interest on Capital Loans or Working Capital to reduce the burden of interest on consumers.

CSPDCL's Reply

2.154 As per section 8 of the prevailing CSERC Consumer Security Deposit Regulation 2006, the licensee is required to pay interest on the consumer security deposits at Bank Rate to be notified by the Reserve Bank of India. The format R7 is suffering from some infirmity which has now been corrected. The rationale on paying interest on consumer security deposits is based on the consideration that this money will be utilized by the licensee as additional working capital and the same is followed.

Commission's View

2.155 As per the relevant regulations the licensee is required to pay interest on the consumer security deposits at Bank Rate to be notified by the Reserve Bank of India. The interest on consumer security deposits being a genuine expense of the petitioner is allowed as per actual in the ARR of the licensee. The Commission has allowed the interest on consumer security deposits in FY 2010-11 as per the actual (provisional) amount submitted by the petitioner. For FY 2011-12 and FY 2012-13 the Commission has projected the interest on consumer security deposits, which shall be trued up on the basis of the actual.

2.156 The Commission has computed the working capital requirements of the licensee in accordance with the CSERC MYT Regulations, 2010. The details of interest on working capital allowed to the petitioner in each year are contained in the relevant sections of this Order.

23) Collection Efficiency

2.157 The collection efficiency of CSPDCL is low. In table R-12, CSPDCL has reported a collection efficiency of only 69% from Agriculture Consumers and collection efficiency from HT consumers of only 78.7% in Durg (O&M) Circle and 48.2% in Jagdalpur (O&M) Circle against current demand.

CSPDCL's Reply

2.158 The circle wise collection efficiency does not represent the performance of the company as some of the recoveries are made effective through adjustments at company level. Therefore the efficiency shown as the performance of the company is the true performance.

2.159 The 90% arrears against HT consumers are against one consumer – Indian Railways, which is under litigation. This arrear is fictitiously increasing in the records till it is settled by adjudicator otherwise it is not the actual arrear.

Commission's View

2.160 In its previous tariff order, the Commission had given several directives related to metering, billing and collection of current dues as well as arrears to streamline the process and minimize the time lag between the actual sale of electricity and receipt of revenue, etc.

2.161 The Commission had also directed the petitioner to prepare a proposal for implementing an incentive/penalty framework for its employees to ensure greater improvement in collection efficiency. CSPDCL is directed to study and formulate a reasonable scheme of incentives and disincentives for its staff and submit the same to the Commission.

24) Non tariff income

2.162 CSPDCL is projecting less Non Tariff Income by about Rs 311 Cr during the MYT Control Period. CSPDCL has not specified any reasons for such huge variation in Non Tariff Income in the present petition.

CSPDCL's Reply

2.163 The approved amount for NTI is always an estimate which is subject to change as per actual which may differ from the actual amount. There is thus no discrepancy but the NTI is lower than that projected by the Commission.

Commission's View

2.164 The Commission has approved the non tariff income for CSPDCL for FY 2010-11 after prudence check of the information provided by the Petitioner in the tariff petition and in the additional submissions made to the Commission. The details regarding the NTI approved for the year are contained in the relevant sections of this Order.

25) Cost of Surplus Power

2.165 CSPDCL has projected a power surplus of 1423.5MU during FY 2010-11 and the entire quantum of such surplus is disposed through UI Mechanism receiving Rs.470.15 Cr, averaging at Rs.3.30 per unit. CSPDCL has not provided any energy balance for FY 2010-11 in its provisional true-up petition, therefore, any quantum of Interstate Sale of Power (other than UI mechanism) could not be ascertained.

2.166 On one hand CSPDCL is projecting a steep hike in the average cost of supply from Rs.3.04 in FY 2009-10 to Rs.5.30 in FY 2012-13 and on the other hand, average cost of surplus power is being reduced from Rs.3.30 per unit to Rs.3.25 per unit.

CSPDCL's Reply

2.167 CSPDCL has submitted that it is permitted to purchase only that much power which is essentially required for the distribution business. Out of the distribution business, surplus power is generated only on account of variation in consumer demand, which cannot be predicted in advance. Therefore such surplus can be transacted through UI mechanism only. Therefore, CSPDCL has considered sale of power though UI mechanism only for which average UI rate has been considered. Further the rates of UI are not related to the cost of power and cannot be compared.

Commission's View

2.168 The Commission has approved the UI income for CSPDCL for FY 2010-11 after prudence check of the information provided by the Petitioner in the tariff petition and in the additional submissions made to the Commission. The details regarding the UI income approved for the year are contained in the relevant sections of this Order.

2.169 The Commission has observed that there is wide variation in peak demand on seasonal basis. Accordingly, CSPDCL has to make short term arrangements to meet the peak demand and seasonal variations. There is however surplus energy available during some of the months during off peak hours. The Commission is of the view that CSPDCL should plan the sale of surplus power more effectively. CSPDCL should make efforts to sell the surplus power through mechanism other than UI i.e. through bilateral sales and/or sale on the energy exchange. The Commission has also passed directives for the same in the directives section of this Order.

26) Agreement with CSPTrCL

2.170 As all the power purchase from CPPs and IPPs within the State is routed through CSPTrCL, CSPDCL is also purchasing power from CSPTrCL without entering into any agreement nor has it obtained any permission from the Commission to purchase power from CSPTrCL. The Commission has not put any capping on the trading margin as stipulated by Electricity Act 2003. Therefore, there is no check on the price of power supply from CSPTrCL.

2.171 The Commission should emphasize that CSPDCL must enter into agreements with CPP/IPP directly in order to fetch firm power at lesser cost.

CSPDCL's Reply

2.172 CSPDCL is not purchasing any power from CSPTrCL now, and so no power purchase agreement is required.

Commission's View

2.173 The Commission has approved the power purchase cost for CSPDCL for FY 2010-11 after prudence check of the information provided by the Petitioner in the tariff petition and in the additional submissions made to the Commission. The details regarding the power purchase cost approved for the year are contained in the relevant sections of this Order.

27) Income tax liability of CSEB

2.174 An income tax liability of Rs.822 Cr (out of which Rs.359 Cr are already paid from ARR) till Dec'08 on account of non-applicability of Section 80IA must not be burdened on consumers.

2.175 In this context, observations made by Hon Commission in the Tariff Order for FY 06-07 (also repeated in T.O. for FY 07-08) are very useful:

(a) The Commission has noted that a new sub-clause (c) has been inserted in clause (iv) of sub-section (4) of section 80-IA of the Income Tax Act' 1961 with effect from 1.4.05 according to which CSEB should be eligible for a 100% exemption from Income Tax.

(b) *The said new sub-clause stipulates that an undertaking which undertakes substantial renovation and modernization of existing network of transmission or distribution lines (at least 50% of the book value of such plant & machinery as on 1.4.2004) at any time during the period beginning 1.4.2004 and ending 31.3.2006 will be exempted from Income Tax for 10 years.*

2.176 As per the Tariff Petition of CSEB, during the above stipulated period, CSEB has added about 82% of the book value in the network of transmission and distribution lines. Therefore, CSEB should be eligible for 100% exemption from Income Tax for 10 years beginning from FY 2005-06.

2.177 The Income Tax allowed in this order would, there, be subject to the condition that CSEB shall seek to avail the above 100% exemption from Income Tax for 10 years and in case the same is allowed, the amount of Income Tax provided in the Tariff Orders shall be surrendered by CSEB as an over recovery for deduction from the ARR of their next tariff petition.

2.178 During the discharge of MYT Petition, It was informed by CSPDCL that against the order of Income-tax Department, it had sought judicial relief and case was pending before the Hon'ble Court.

2.179 Such amount (reported to be Rs.359 Cr) which is paid as income tax should be brought back to ARR to relieve consumers from sudden and huge Tariff Shock as proposed in the present petition

CSPDCL's Reply

2.180 CSPDCL has submitted that the objection of the consumer is baseless. The exemption under Section 80IA is granted by income tax department which has rejected the claim of CSEB. The decision of the income tax department has also been challenged by CSEB in the Hon'ble High Court. In case the Hon'ble Court directs the IT department to grant an exemption to CSEB, the benefits of the same shall be passed to the consumers.

Commission's View

2.181 The Commission has already stated its position regarding the matter in the MYT Order. The matter of income tax liability of erstwhile CSEB is sub-judice and reduction of Rs 359 Cr from the ARR would be premature. However, the same would be taken care of once the final decision is made in this regard by the Hon'ble Court.

28) Controllable and Uncontrollable Expenses

2.182 The Commission in its MYT Tariff Regulations, 2010 has clearly defined controllable and uncontrollable expenses and has clearly set guidelines on how these expenses are to be treated. Despite the Regulations the licensee has not provided clear demarcation of the over/underachievement of the controllable and uncontrollable items. The Petitioner has considered all the expenses as uncontrollable thereby providing no scope for efficiency improvement. The regulator has designed the Multi Year Tariff framework with the objective of providing regulatory certainty to all the stakeholders in the industry but the petitioner has clearly ignored these objectives in its filing.

Commission's View

2.183 The Commission in the CSERC MYT Regulations, 2010 has categorized certain expenditure as efficiency linked controllable items including (a) Operation & Maintenance costs (b) Transmission losses (c) Distribution losses (d) Collection efficiency (e) operating norms for a generation company, while other financial and operational parameters have been deemed as uncontrollable.

2.184 In carrying of truing up for FY 2010-11, the Commission has considered sharing of gains and losses on the controllable items in accordance with the said Regulations. The deviation on account of power purchase cost has been passed on to the consumers.

29) Cross Subsidy

2.185 Cross Subsidy Surcharge proposed by CSPDCL in the petition for FY 2012-13 has been based on an average cost of supply of Rs 5.30/unit which was arrived at by considering the accumulated revenue deficit up to FY 2012-13. The average cost of supply should only consider the revenue deficit of the current year and not accumulated revenue deficits, for the purpose of calculating the cross subsidization.

2.186 CSPDCL has calculated the cross subsidy surcharge as the difference between the average tariff of the subsidizing category and the average cost of supply. The determination of the surcharge should instead be done using the following formula:

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

S is the surcharge;

T is the Tariff payable by the relevant category of consumers;

C is the Weighted average cost of power purchase of the top 5% at the margin excluding liquid fuel based generation and renewable power;

D is the Wheeling charge; L is the system Losses for the applicable category of consumers; expressed as a percentage.

2.187 National Tariff policy u/s 8.3.2 provides that tariff for all categories (except BPL) should be within +/- 20% of average cost of supply (Only for BPL category, tariff may be as low as 50% of average cost of supply). But CSPDCL has illegally proposed Agriculture Consumers and Public Utility Consumers out of +/- 20% range and also proposed Railway Traction, Heavy Industries, Mines & Cement Plants, Other HT industries, Low Load Factor Steel Industries, Demand Based LT Industries and LT Industries (25-100 HP) etc out of +20% range.

CSPDCL's Reply

2.188 CSPDCL has submitted that this exercise is of academic interest only, at least in the present scenario, because the cost to serve to a BPL consumer in remote area is very high and the National Tariff Policy mandates recovery of only 50% of average cost of supply from such consumers. Similarly, the mandate for reducing the cross subsidy also prescribes that it should be within ± 20% of average cost of supply by the year 2011. Neither EA 2003 nor National Tariff Policy mandates the reduction of cross subsidy in reference to actual cost of supply. Accordingly, none of the States so far have decided the cross subsides in reference to actual cost of supply barring one or two states where tariffs are determined on the basis of actual cost of supply for some specific category of consumers only. CSPDCL has submitted its proposal in compliance to the mandate of NTP to the extent possible. The tariffs of highly cross subsidized category are proposed to be increased in higher proportion. CSPDCL has proposed even 173% hike in agricultural tariff from Rs. 1.10 per unit to Rs. 3.00 per unit.

Commission's View

2.189 In determining the tariff for the year, the Commission has followed the cost plus method and has also continued the process of rationalisation of tariff. The cross subsidies are being reduced over the years and the same philosophy has been followed this year also.

30) Capital expenditure and capitalization

2.190 Capital expenditure of Rs 604.89 Cr has been reported against the approved amount of Rs 1218.37 Cr in FY 2010-11 and no reasons for such extremely poor performance have been given. The proposed figures for the FY 2011-12 and FY 2012-13 are Rs. 1186.47 Cr and Rs 989.68 Cr, respectively, which should be subjected to prudence check and the capability of the licensee to actually execute the capital works, for which one basis could be the achievement of FY 2010-11.

2.191 During the FY 2010-11, asset capitalization has been only of Rs. 188.9 Cr, the rate of which as per the data given by the licensee is only 11.61%. The licensee has proposed asset capitalization during the FY 2011-12 and FY 2012-13 by assuming the asset capitalization rate, as 50%, which should not be allowed under any circumstances and it should not be more than 15% looking to the past performance.

CSPDCL's Reply

2.192 CSPDCL has replied that the actual completion of Capital Works is quite more than what has been capitalized due to the transition stage of the accounting system from manual to SAP processed. On account of technical problems, the delay has been caused.

Commission's View

2.193 The Commission has approved the capital expenditure and capitalization for FY 2011-12 and FY 2012-13 considering the capital expenditure approved for CSPDCL in the Business Plan and the actual capital expenditure and capitalization incurred by the petitioner during FY 2010-11. Further details regarding the capitalization and capital expenditure are contained in the relevant sections of this Order.

31) Provision for bad debts

2.194 The MYT Regulations allow for provision under this head up to 1% of the annual revenue subject to actual write off in the previous years. The licensee has not reported any amount as actually written off in the previous years. Therefore, the amounts proposed of Rs 46 Cr and Rs 70 Cr for FY 2011-12 and FY 2012-13 should be disallowed.

CSPDCL's Reply

2.195 CSPDCL has submitted that the provisions have been made on the basis of the provisions of MYT Regulation 2010 only, which is also based on certain prudent accounting principles adopted in financial parlance, The writing off of debts is not an easy process and it takes quite longer time to finalize.

Commission's View

2.196 In accordance with the CSERC MYT Regulations, 2010 the Commission may consider a provision for writing off of bad and doubtful debts of distribution licensee. A normative provision 1% of yearly revenue from the retail supply business may be allowed as bad and doubtful debt subject to actual writing off of bad and doubtful debts in the previous year.

2.197 The petitioner has made a provision of Rs 36.28 Cr of bad and doubtful debts for FY 2010-11 in its provisional accounts. The Commission recognizes that the accounts of the licensee are provisional and the actual writing off of the debt may occur at a later stage. The Commission has thus considered the provision made by CSPDCL in its accounts for approving the bad debts for the year.

32) Revenue Deficit Estimation

2.198 In the FY 2012-13 there has been an estimation of Revenue Deficit of Rs 2089 Cr because of the electricity bought from external source during peak hours. But from the past three months' performance, as per various news sources, there has been an increase in production by 244 MU. Further, in the FY 2012-13 three new units of 500 MW each are being started. So, there won't be any requirement to buy electricity from external sources. Hence, the revenue deficit estimation is not correct.

2.199 From the Power Generation Company News, it is known that the last three months, the Plant Load Factor has increased from 77.28% to 93.18%. This shall definitely add to the revenues and hence, the revenues for the next FY 2012-13 will all increase. But, the petition proposing the increase in tariff dated 30-12-2011 is based on the old figures. So, with increase in the Plant Load Factor the actual revenue realized will be completely different from what is being speculated. Hence, this kind of petition is not acceptable since even after considering the depreciation, the revenues are bound to rise.

Commission's View

2.200 The Commission has estimated the power purchase from the generating stations of CSPGCL and CGS stations for FY 2012-13 considering the past trend in generation of these stations. The details of the power purchase quantum estimated by the Commission fir FY 2012-13 is contained in the relevant sections of this Order.

33) Tariff for Steel Industries

2.201 It has been proposed to increase the demand charge, in the case of MSP tariff, to Rs. 400 per KVA from the current Rs. 310 per KVA. While in other states like Orissa, the demand charge is only Rs. 200 per KVA for similar industries of Agriculture produce processors. Jindal Steel & Power Ltd., supplying electricity to similar industries in Raigarh, has a demand charge on the consumable units basis at the rate of 30 paise on load factor. Hence a rational examination has to be made to determine the demand charge.

2.202 On achieving higher load factor by steel / sponge iron units, they are entitled with a load factor incentive ranging from 1% to 3% while the solvent / refining based industries, which too have a load factor of over 95 % during the peak season from October to April do not have any such incentives. So, even these industries should be considered for the load factor incentives.

Commission's View

2.203 The Commission has set the tariff for each consumer category considering the provisions of the Act, the Tariff Policy and the revenue requirement of the Petitioner.

34) Restriction on use of power

2.204 The representatives of the CG Steel Re Rollers Association have submitted that the production at a Rolling Mill normally starts at about 9 AM and continues up to 8 PM after which general maintenance work is carried out. In the night too, electricity is required for lighting purpose as security measure. But, as per the current tariff structure, Rolling Mills are restricted to use power after 6 PM and heavily penalized on such consumption after 6 PM to 6 AM which is not justified. The same can be clearly understood from the statistics provided by CSPDCL itself that states that the Rolling Mills have paid Rs. 31.2 Cr as normal supply i.e. 6 AM to 6 PM and Rs. 23.3 Cr as peak supply charges (6 PM to 6 AM) in the FY 2010-11. Moreover, Chhattisgarh being a power surplus state, often sells electricity to other states at very low rates. In such situations, any restriction in the use of power after 6 PM is not warranted in the present scenario and the Rolling Mills should not be deprived of such surplus power.

Commission's View

2.205 Commission has set the tariff for such consumer category considering the provisions of the Act, the Tariff Policy and the revenue requirement of the petitioner.

35) Billing on the basis of KVAh

2.206 Bhillai Steel plant has submitted that the KVARH flow through 220 KV CSPTCL lines to BSP from Khedmara S/S cannot be attributed to BSP alone as BSP is also connected with NSPCL which is in turn connected to 400 KV PGCIL S/S. The same has been appreciated by the Commission through the Petition No. 34 of 2011/2012/1514, dated 16/01/2012 restraining CSPDCL to levy RKVAH charge on BSP. Also, the net kWh drawl of BSP from CSPDCL is computed on 15 min block basis after deducting kWh corresponding to NSPCL's schedule to BSP from the gross drawl of BSP for both CSPDCL and NSPCL. As the NSPCL's schedule is not available in KVAH, it will not be possible to compute the net KVAH drawl from CDPDCL for billing purpose. Hence, the calculation is not feasible on kVAh basis.

CSPDCL's Reply

2.207 CSPDCL has submitted the detailed study-report on the outcome of KVAh billing to Railways applicable in the State since last six years which clearly shows that it is neither beneficial nor loss making proposition to anybody whether the Licensee or the Consumer. In case the power factor is maintained by consumers, the benefit will be attributed to the consumer otherwise the undue loss to the licensee shall be adequately and uniformly offsetted.

Commission's View

2.208 Considering the advantages of KVAH billing Commission has decided to implement KVAH billing for EHV and HV consumers in the phased manner. To begin with, KVAH based billing shall be carried out for all EHV consumers, HV consumer availing start up power (HV-8) and HV consumers who manufacture the equipments for power generation from renewable source of energy (HV-10) from FY 2012-13 onwards. For the present, the Commission has decided to defer the implementation of KVAH billing for remaining HV consumers, so as to allow small HV consumers to prepare for implementation of such mechanism.

36) Billing of agricultural consumers

2.209 When the Distribution Company comes to test the pumps used by farmers, at times a case of M.D. Shoot is filed by making an observation with the help of just an Ampere test. At times, on testing a 5 H.P. motor, when it is found to be taking a load of 7 A to 9 A, the rating of the motor is considered to be between 6.5 to 8 H.P. and the farmers are pressurized to increase their load limit so as to avoid the fine. But, actually, NIT, BEE and ISI have certified a load of up to 10 A – 11 A for a 5 H.P. motor. Also, BEE has allowed a load of 2 A - 2.3 A per H.P. which again clearly gets a 5 H.P. motor, a range of up to 10 A – 11 A. Hence, a clarification must be made in the Tariff Book to avoid this kind of unjust fine being imposed on the farmers.

2.210 After a study carried out by the Union on water pumps of about 100 farmers, it has been found that in the case of farmers using a 5 H.P. motor, the per hour consumption of electricity comes out to be around 4 to 6 Units which is absolutely justified. So, it is requested that, since in the case of farmers, the agreement is made on per H.P. basis, the calculation should be done at the rate of 3.7 units/hour. It can clearly be seen that the farmers are currently being over-charged and hence, necessary actions must be taken.

2.211 Because of the inability of the company to take meter readings from the farmers every month on time, at times, an assessed bill is generated. This bill on a later stage after having taken the actual meter reading should be adjusted. But this activity is not carried out. So, either the company should ensure proper billing so that the farmers don't suffer or they should propose a flat rate tariff instead. Also, at times, due to the burning out of the meters, an assessed bill is generated. This bill is, at times, based on the last 6 months' or 8 months' usage. So, clarification is required as to what is the correct way of making an assessed bill in such a situation.

CSPDCL's Reply

2.212 The flat rate system was introduced because of the absence of the meters at various consumer premises. As the meters were installed, this provision was subsequently removed. Now that meters have been installed at all the consumer premises, there shall not be any such problem. Also, as mentioned in the Section 55(1) of the Electricity Act of 2003, the billing of services shall be done such that it does not harm neither the consumer not the licensee.

Commission's View

2.213 CSPDCL has informed the Commission that all the consumers inclusive of all agricultural consumers have been provided with the meters. Since 100% meterization has been done by the CSPDCL the Commission in this order has not provided flat rate system for agricultural consumers and the billing for such consumers shall be done on the basis of meter readings only.

37) Miscellaneous

2.214 The consumption of agricultural and BPL consumers should be metered and should be charged according to the tariff declared by the Commission.

2.215 The process of giving connections to households, small scale employed and small scale industries should be made simple and free from corruption. It should be ensured that the connection is given within 3 to 7 days or it acts as an incentive towards electricity theft.

2.216 The new electronic meters have been observed to get burnt very soon and the replacement cost falls on the consumer. Hence, the company manufacturing the meter should provide a 5-year warranty period and the burden of replacement should fall on them.

2.217 At the time of the hearing on the February 24, 2012, many of the consumers were not able to attend the hearing as it was held at the head office in Bilaspur. Hence, it is requested that since there are a lot of consumers in the areas of Koria, Korba, Raigarh, Janjgeer-Champa and Mungeli, these hearing sessions should be held district wise so that all the consumers shall be able to be present at the time of hearing.

Commission's View

2.218 As per the submissions made by CSPDCL, the petitioner has completed metering of agricultural and BPL consumers in FY 2009-10 and thereafter the consumption of these consumers has been recorded as per the metered value of the consumption.

2.219 The Commission agrees with the view of the consumers that the process of giving connections to households, small scale employed and small scale industries should be simple and free from corruption. The Commission is concerned by the reported hurdles faced by the consumers in acquiring an electricity connection and directs CSPDCL to provide connections to consumers in a timely manner in accordance with the provisions mentioned in the Supply Code, 2011 notified by the Commission.

3 CHHATTISGARH STATE POWER GENERATING COMPANY LIMITED – PETITION NO. 09/2012(T)

3.1 This section contains a summary of the provisional true up for FY 2010-11, Annual Performance Review (APR) for FY 2011-12 & review of Annual Revenue Requirement (ARR) and tariff determination for FY 2012-13 as submitted by Chhattisgarh State Power Generating Company (CSPGCL) and the analysis by the Commission.

About CSPGCL

3.2 The Government of Chhattisgarh (GoCG) vide notification No. 1-8/2008/13/1 dated December 19, 2008 issued the Chhattisgarh State Electricity Board (CSEB) Transfer Scheme Rules, 2008 with effect from January 1, 2009. As per the rules, the erstwhile CSEB has been unbundled into five independent companies' viz., Holding company, Generation company, Transmission company, Distribution company and Trading Company. CSPGCL is responsible for operating and maintaining the State Generating Stations and also for installation of new power projects.

3.3 The opening balance sheet for CSPGCL as on January 1, 2009, as per the revised transfer scheme has been summarised below.

Table 3: Balance sheet for CSPGCL (Rs Cr) as on January 1, 2009

Particulars	Amount
ASSETS	
Gross Block	3,601.31
Less : Accumulated Depreciation	914.73
Net Fixed Assets	2,686.58
CWIP	544.37
Assets not in use	
Deferred Cost	
Intangible Assets	8.87
Investment	66.38
Investment in Subsidiary Company	
Net Current Assets	
Stock	178.88
Receivable against supply of power	
Cash & Bank	4.99
Inter Company Receivable/Payable	(38.28)
Loans &Advances	482.56
Sundry Receivable	(12.48)
Total Current Assets	615.67
Less :	
Total Current Liabilities	
Security Deposits Consumers	
Other Current Liabilities	708.17
Total Current Liabilities	708.17
Net Current Assets	(92.50)
Subsidy Receivable from Government	133.31
Total – ASSETS	**3,347.01**
LIABILITIES	

Particulars	Amount
Borrowings of Working Capital	
Payments due on Capital Liabilities	180.79
Capital Liabilities	1,675.92
Funds from State Government	
(A) Loan	
(B) Equity Capital	
Total funds from State Govt.	296.62
Contributions, Grants and Subsidies towards Cost of Capital Assets	
Reserves and Reserve Funds	60.60
Surplus (+ Equity Adjustment)	1,133.08
Sub Total Shareholder's Equity	*1,193.68*
Total – LIABILITIES	**3,347.01**

Installed Capacity

3.4 CSPGCL is pre-dominantly a thermal power producer. At present, it owns a total generating capacity of 1924.70 MW of which approx. 92% is thermal. Its portfolio constitutes of three thermal plants aggregating 1780 MW, one large hydro and three small hydro plants aggregating 138.70 MW and one co-generation plant of 6 MW.

Table 4: Installed capacity for CSPGCL

No.	Name of Plant	Year of Commissioning	Configuration	MW
	Thermal			
1	KTPS Korba East			
A	TPS PH II*	1966-68	4 X 50	200.00
B	TPS PH III*	1976-81	2 X 120	240.00
2	HTPS Korba West	1983-86	4 X 210	840.00
3	DSPM TPS Korba	2007	2 X 250	500.00
	Total (Thermal) – A			**1780.00**
	Hydro			
4	Hasdeo Bango HEP	1994-95	3 X 40	120.00
5	Gangrel HEP	2004	4 X 2.5	10.00
6	Sikasar HEP	2006	2 X 3.5	7.00
7	Mini Micro H.P.S Korba	2003	2 X 0.85	1.70
	Total (Hydro) – B			**138.70**
	Co-Generation			
8	Kawardha Co-generation Plant	2006	1 X 6	6.00
	Total (Co-Generation) – C			**6.00**
	Total Installed Capacity (A+B+C)			**1924.70**

Note: * These units were refurbished during Sept 2002 to Aug 2005.

Petition Filing and Technical Validation

3.5 CSPGCL filed the petition for provisional true up for FY 2010-11, APR for FY 2011-12 and Revision of ARR and Tariff resetting for FY 2012-13 on January 25, 2012. On initial scrutiny of the said petition, several discrepancies and additional information requirement were identified by the Commission and discussed with CSPGCL during the Technical Validation Session (TVS), which was attended by the staff of the Commission, officers of CSPGCL, and consultants of the Commission on January 31, 2011. During the TVS, CSPGCL was advised to furnish additional data which were considered material for examination of the ARR and tariff.

Brief note on Public Hearing

3.6 CSPGCL issued public notice in the leading newspapers of the State inviting suggestions/comments/objections from the public on its APR Petition for provisional true up of FY 2010-11, APR for FY 2011-12 and revision of ARR and Tariff resetting for FY 2012-13 on January 31, 2012. The Commission held the common public hearings for petitions filed by all three successor companies during the period from February 22nd to March 3rd, 2012, in Jagdalpur, Ambikapur, Bilaspur and Raipur. All the suggestions/comments/objections made by the public in writing or during the hearing have been summarized and presented in Chapter 2 of this Order.

Truing up for period prior to Control Period

3.7 The Commission has carried out the final truing up for FY 2005-06 and FY 06-07, provisional true up of FY 07-08 & 08-09 for CSEB and 09-10 for the successor companies in the MYT Order dated March 31, 2011. The revenue surplus/deficit on account of truing up for past years for CSEB up to FY 2008-09 has been allocated to the three successor companies. The revenue surplus/deficit on account of truing up for FY 2009-10 for CSPGCL has also been added. The approved net revenue surplus from truing up for past years is Rs 522 Cr (as approved in the MYT Order) for CSPGCL which has been adjusted while determining ARR for future years.

Provisional Truing up for FY 2010-11

3.8 CSPGCL, in its true up petition for FY 2010-11, requested the Commission for provisional true up of performance of thermal generating stations & large hydro plant namely Hasdeo Bango only. Further in case of Kawardha Cogen Plant, the Petitioner submitted that generic tariff applies to such plants & same should be applied to it in accordance with Commission’s Order dated 28 December, 2011.

3.9 The Commission, however at present, is undertaking the provisional true up for thermal generating stations only. In case of large hydro station, the Commission noted there is more than 100% variation in the operational performance of the station which is due to natural conditions in which hydro plants operate. In such a case, Commission finds it fit to assess the performance of the hydro plants only over a rolling period, i.e. at end of the 3 year MYT control period, to take care of seasonal variations inherent in such plants. In case of Cogen plant the Commission accepts the petitioner’s view and allows it generic tariff as per its Order dated 28 December 2011, and subsequent orders as may be issued by the Commission from time to time, hence no true up is done for this station also.

3.10 The CSERC's MYT Regulations, 2010 defined the concept of Truing up separately for controllable & uncontrollable parameters; wherein '*efficiency linked controllable parameters*' for generating company refer to O&M costs & norms for operation such as normative plant availability/load factor, auxiliary consumption, station heat rate, secondary fuel consumption & transit losses & '*un-controllable parameters*' for generating company refer to fuel costs & costs on account of inflation, statutory taxes & cess or any other such charges.

True Up Philosophy

3.11 Before proceeding further, it is prudent to note that with the new regulations (CSERC MYT Regulation 2010) the concept of 'True Up' has undergone a paradigm shift. The regulations provide two different approaches for the true up. The Regulation 9 deals with the true up for the period prior to the instant control period. It is reproduced as under :

"9. TRUING UP FOR THE PERIOD PRIOR TO COMMENCEMENT OF MYT ORDER:

9.1 Performance review and adjustment of variations in ARR and revenue from tariff and charges of the generating company / licensee for the years prior to the first multiyear tariff order passed by the Commission under these regulations, shall be based on the available un-audited / audited information after prudence check by the Commission.

9.2 The manner of sharing of losses and gains as a result of the true up exercise as above may be decided by the Commission. Such losses/gains may be passed on to Tariff Stabilization Fund and/or adjusted in ARR."

3.12 However for the subsequent years (within the control period) the true up provision is covered in Regulation 13. The same is reproduced as under:-

*"**13. TRUE UP**:*

Truing up of the ARR and revenue earned from tariff and charges shall be done in the ensuing year along with the annual performance review of the current year.

The truing up done on the basis of un-audited / provisional account shall be subject to further final truing up, as soon as the audited account is available.

The net financial impact of true-ups shall be accounted for as per the provisions of regulation 5.9 and regulation 5.10, considering the factors like inflation, natural calamity etc. by the Commission."

3.13 It is evident from the regulation 13.3, that financial impact of true up is to be accounted as per provisions of regulation 5.9 and 5.10. For harmonious reading regulation 5.6 to 5.10 are reproduced as under:

*"5.6 **Profit-Sharing**: The applicant shall present a statement of gain and loss against each efficiency linked controllable item of the Aggregate Revenue Requirement separately.*

5.7 For the purpose of sharing gains and losses with the consumers, only the aggregate net gains or losses will be considered.

5.8 There shall be no cap on the profits earned from operational performance, higher than the targets specified by the Commission.

5.9 The mechanism for sharing of aggregate net gain on account of better achievement in reference to the target set shall be as under:

(a) The one-third of the aggregate net gain on account of better achievement in reference with the target set in the tariff order for efficiency linked controllable items shall be passed on to the beneficiary / consumer(s) in the form of rebate in tariff.

(b) The one-third amount of gain on account of better achievement in reference with the target set in tariff order for efficiency linked controllable items shall be credited to the tariff stabilization fund.

(c) The one-third amount of gain on account of better achievement in reference with the target set in tariff order for efficiency linked controllable items shall be retained by the generating company or the licensee as the case may be and reasonable portion of this amount should be used for funding the incentive scheme(s) for the employees for the purpose of improving performance of the respective company. Prior approval for use of above gain will be taken by the respective company from the Commission before making any expenditure from such gain so earned.

(d) The aggregate net gains on account of uncontrollable items (as per tariff order) over such period shall be passed on to beneficiaries / consumers through the next ARR and /or credited to the tariff stabilization fund, as decided by the commission.

5.10 ***The mechanism of sharing of aggregate net loss****, if any, shall be as following:*

a) The aggregate net losses on account of under achievement in reference with the target set in tariff order for efficiency linked controllable items over such period, shall be borne by the generating company or the licensee, as the case may be.

b) The aggregate net losses on account of uncontrollable items (as per tariff order) over such period shall be passed on to the beneficiaries / consumers through the next ARR and /or debited to the tariff stabilization fund, as decided by the commission."

3.14 Thus in essence, for any year within the control period, the net financial impact of true up is to be decided only on the basis of gains and losses. Clearly, at the time of true up controllable parameters are not to be re-determined, only actual and normative costs are to be compared. CSERC regulation allows resetting of ARR due to uncontrollable factors on actual basis (gain or loss both being 100% pass through) and the net gain or loss due to controllable factors is subjected to sharing. Thus once, impact due to uncontrollable parameters are identified and embedded, then impact of controllable parameters in respect of each of the ARR component has to be worked out separately.

3.15 In actual practice, a generating plant may perform better than the target in respect of one efficiency linked parameter and at the same time in respect of some other parameter may underperform than the target.

3.16 To work out the component wise gains or losses, first the uncontrollable and controllable parameters affecting per unit cost for that component are identified. Then impact of uncontrollable factors is allowed on actual and per unit normative cost as well as per unit actual cost is worked out. Both are compared, if the per unit actual cost is higher than the normative cost then the difference is treated as per unit loss and if the actual is lower than the normative, then the difference is treated as gain. The per unit gain or loss is then multiplied with the actual sent out units to arrive at the total gain or loss in relation to the specific cost component.

3.17 The gains and losses in respect of different cost components are to be netted off and in case there is net loss, utility will have to bear the full loss, but if there is net gain then utility shall be allowed to retain one third of such gains. In other words, if the utility performs better than the norms and there is overall net gain on account of controllable factors, then the gross ARR may go up (as the utility is allowed to retain only one third share of gains) but the average per unit cost will come down however if the performance is lower than the norms, then the end consumer is not burdened due to such inefficiency as the average tariff to beneficiary remains same as it would have been if the normative performance would have been achieved.

3.18 Thus, if per unit normative allowable cost is ‘A’ and Actual per unit cost is ‘B’ then:-

If B > A, then

ARR to be allowed = ‘A’ X Actual sent out units, only.

Else if, B < A, & Net gain is ‘C’, then

ARR to be allowed for Recovery = ‘B’ X Actual Sent units + ‘C’/3

3.19 FY 2010-11, is the year falling within the control period hence true up is being done in accordance to methodology stated above. Accordingly review of all cost components have been done with the normative parameters applicable and gains / losses due to efficiency linked controllable factors have been computed in the following sections. The impact of uncontrollable factors has been treated as a pass through.

Target Performance Parameters of the thermal Generating Stations

3.20 The CSERC MYT Regulations 2010 contain target for all the Generation parameters for the full control period. Further, as the MYT order was passed on 31.03.2011 i.e. at the end of FY 2010-11, revisiting the targets was not feasible. Thus for FY 2010-11, for estimation of fuel costs for CSPGCL as well as power purchase cost for CSPDCL, Commission relied on the net generation up to 16th March 2011 for making realistic projections (instead of normative). Such post-facto estimation is entirely different from target setting. However, it is noteworthy that, for FY 2011-12 and FY 2012-13 for the purpose of fixation of tariff, MYT order relied on the target parameters set in the applicable regulations.

3.21 The target performance parameters as duly defined in regulations have been adopted by the Commission for true up of FY 2010-11. The same are tabulated as under:

Table 5: Target Performance Parameters for FY 2010-11 as per MYT Regulations 2010

Performance Parameter	*UoM*	KTPS	DSPM TPS	HTPS
Plant Load Factor (PLF)	*%*	78.00	85.00	82.00
Aux. Consumption	*%*	10.40	9.00	9.00
Station Heat Rate (SHR)	*kCal/kWh*	2975	2500	2650
Sp. Oil Consumption	*Ml/kWh*	2.25	1.00	1.00
Transit Loss	*%*	1.25	0.80	0.30

3.22 Against the above defined target parameters, the actual performance of the three power stations was found to be as under:-

Table 6: Actual Performance Parameters for FY 2010-11 as submitted by CSPGCL

Performance Parameter	*UoM*	KTPS	DSPM TPS	HTPS
Plant Load Factor (PLF)	*%*	76.26	96.81	91.00
Aux. Consumption	*%*	10.76	7.81	9.58
Station Heat Rate (SHR)	*kCal/kWh*	3187	2450	2528
Sp. Oil Consumption	*Ml/kWh*	1.82	0.30	0.42
Transit Loss	*%*	1.21	0.78	0.30

Performance analysis and Commission's views

A) Plant Load Factor (PLF)

3.23 CSPGCL has submitted that two of its thermal stations, namely HTPS and DSPM TPS have shown better performance than the normative targets, while KTPS has failed to achieve the target. CSPGCL has requested for review of the generation targets for KTPS Korba East on various grounds ranging from vintage, design etc. to infeasibility.

Commission's View

3.24 The Commission appreciates that the actual performance of HTPS & DSPM thermal stations is better than norms. However in case of KTPS, the Commission notes that the norms have been set through a detailed regulatory process; and all factors were taken into consideration at the time. Thus at this stage, the Commission does not find sufficient reason to reopen this issue.

B) *Auxiliary Consumption*

3.25 CSPGCL has submitted that even though DSPM has performed better than the target performance, the other two thermal stations could not achieve the targets set in MYT Regulations. In case of KTPS & HTPS thermal stations, CSPGCL submitted that the auxiliary consumption has increased on account of change in formula for calculation of the same. The utility has submitted that while setting the targets the data relied was derived as per a different methodology. It is argued that due to change in formula/methodology, auxiliary consumption now also accounts for transformer losses i.e. GT, UAT & Reserve transformer losses and Generator Static Excitation system losses. Utility also submitted copy of technical particulars in support of the contention.

Commission's View

3.26 The Commission appreciates the length of the arguments put forward by the utility but is not convinced with the depth of the argument. With respect to submissions made by CSPGCL in case of HTPS/KTPS, the Commission clarifies that the CSERC's MYT Regulations 2010 take into account the latest definition of auxiliary consumption as defined by CERC Tariff Regulations 2009 and is reiterated here:

*'3.6 '**Auxiliary Energy Consumption' or 'AUX' in** relation to a period in case of a generating station means the quantum of energy consumed by auxiliary equipments of the generating station, and transformer losses within the generating station, expressed as a percentage of the sum of gross energy generated at the generator terminals of all the units of the generating station;'*

3.27 It is clear from above that the norm for auxiliary consumption does include losses on account of transformer losses & system excitation losses and thus no separate provision will be allowed. The draft regulation also contained the same definition. There is no change in the methodology or formula or definition from the draft stage. Hence it is not open for any stakeholder to ask at this time for review of target performance parameters which have been defined in the regulations themselves. Accordingly, the Commission is not inclined to revisit the normative auxiliary consumption and gains/ loss shall be computed in accordance to normative auxiliary consumption defined in the regulations only.

Generation from thermal stations

3.28 The following table summarises the station-wise normative generation for FY 2010-11 vis-a-vis the actual generation by the three thermal power stations of CSPGCL.

Table 7: Station-wise Gross and Net Generation (MU) for FY 2010-11 as per Norms given in MYT Regulation & Actual submitted by CSPGCL

Sl. No.	Name of Plant	Gross Gen (MU)		Net Gen (MU	
		Normative	Actual	Normative	Actual
1	HTPS Korba West	6034	6696	5491	6055
2	KTPS Korba East	3006	2939	2694	2623
3	DSPM Korba East (Extn.)	3723	4240	3388	3909
	Total Thermal	**12763**	**13875**	**11573**	**12587**

D) Station Heat Rate (SHR)

3.29 CSPGCL has submitted that while two of its thermal stations i.e. DSPM & HTPS have outperformed the targets set, KTPS has not performed up to the mark.

3.30 In case of KTPS, CSPGCL has submitted that the actual SHR is higher than the norms due to the inherent specifications of plant related to its design, vintage, age, etc and not because of any inefficiency on part of the Petitioner. The utility also pleaded infeasibility of the targets citing the performance of other power stations of similar capacity and has prayed for SHR deviations quoted certain standards/ manuals.

3.31 The utility also submitted that KTPS owns 4 units of 50 MW capacity each and 2 units of 120 MW capacities each. These units have completed their useful lives and have been refurbished and thus cannot be expected to perform at maximum efficiency. Further keeping in mind the vintage of the 40 year old plant & its past performance a variation of 20-25% in SHR should be allowed. Utility also offered that a third party assessment of feasibility aspect may be allowed and till such time actual SHR achieved should be allowed by the Commission.

Commission's View

3.32 The Commission had specified the norms for SHR in its MYT Regulations 2010 after taking cognizance of the past performance of the plants, design, vintage, age & other such factors affecting the determination of SHR and as such they shall not be revisited within the MYT Control Period. The Commission is not inclined to review the target midway and when the utility is rewarded for outperforming the targets; it has to bear the consequences of its failures also. Fixation of target is a matter of regulation and any review can be taken up only during revision / amendment of the same.

3.33 However, Commission finds force in the submission of utility that as there is lack of standard benchmarks for small sets and the conditions vary from plant to plant, a third party comprehensive study of the achievability of performance parameters shall be helpful in arriving at more transparent and rational targets. The Tariff policy also suggests that fixation of realistic targets is in the interest of all the stakeholders. Accordingly, Commission directs the utility to engage a neutral reputed third party agency such as CEA/ CPRI/ NTPC / an experienced IIT etc. to conduct a study within three months to assess reasonable performance parameters which such sets can be expected to achieve. The scope of work etc may be submitted to Commission for appropriate consultation. Results of such expert study may be a useful input for future fixations of targets for next MYT control period however it is made clear that in the instant control period the target set in the regulations shall have to be complied.

E) Specific Oil Consumption (SOC) & Transit Loss of Coal

Commission's View

3.34 Commission appreciates that on account of these performance parameters, the utility has outperformed the targets set in the MYT Regulations.

3.35 In view of the forgoing discussion, the Commission has decided to stick to the normative values as indicated in Table 5 for the purpose of True up for FY 2010-11 & computation of net gain/loss.

Un-controllable Performance Parameters for thermal Generating Stations

Commission's View

3.36 As discussed in previous section on True up philosophy, any gain/loss on account of uncontrollable parameters is allowed to be pass-through in ARR. The performance of CSPGCL's thermal stations w.r.t. such parameters has been summarised below.

F) Calorific value of fuel

3.37 CSPGCL has submitted that the actual weighted average gross calorific value (GCV) of Coal & secondary fuel consumed in each station has not shown much variation vis-a-vis the approved GCV in MYT Order and thus should be approved by the Commission.

Commission's View

3.38 As GCV of fuel is an uncontrollable parameter, the Commission approves the actual GCV for FY 2010-11 as submitted by the petitioner. The following table summarizes the station-wise approved GCV for Coal & Secondary fuel as per MYT order, actual achieved during FY 2010-11, and approved now.

Table 8: Station-wise GCV for Coal & Secondary Fuel for FY 2010-11

No.	Name of Plant	GCV for Coal fired (kCal/kg)			GCV for Secondary Fuel (kCal/lt)		
		App. in MYT Order	Submitted in the Petition	App. in this Order	App. in MYT Order	Submitted in the Petition	App. in this Order
1	HTPS Korba West	3591	3534	3534	10000	10000	10000
2	KTPS Korba East	3171	3306	3306	10000	10000	10000
3	DSPM Korba East (Extn.)	3455	3444	3444	10000	10000	10000

G) Landed Price of Primary Fuel (LPPF) & Secondary Fuel

3.39 CSPGCL submitted that variation in landed price of primary fuel (coal) including transportation costs & secondary fuel (mix of HFO/HSD) consumed in thermal stations are uncontrollable parameters and same should be allowed as per actual.

Commission's View

3.40 The Commission agrees with the Petitioner that variation in fuel prices is uncontrollable in nature and subject to prudence check should be allowed as per actual. The bill details along with sample bills were checked during TVS and the price of coal and oil is allowed on actual basis.

3.41 However, as far as landed price of coal is concerned, it has one factor (transit loss) which is controllable and has to be considered accordingly. After taking into account the impact of Normative and actual transit loss the landed cost of coal on actual basis as well as normative basis is tabulated in the following table.

Table 9: Station-wise LPPF (Rs/MT) for FY 2010-11

No.	Name of Plant	Approved in MYT Order	Submitted in the Petition (Actual)	App. in this Order
1	HTPS Korba West	865	878	878
2	KTPS Korba East	849	855	856
3	DSPM Korba East (Extn.)	956	957	957

3.42 Regarding oil prices, normally actual cost is admissible. However, it is noted that at HTPS and KTPS, HFO has been received by Rail/ road. It is also noted from the details submitted in TVS/ additional submission that in case of oil received through rail from outside the state, the entry tax is paid separately. However, at present accounting treatment of such payment in the books could not be segregated and ascertained, hence, we are allowing the cost of oil paid to the oil companies only. CSPGCL is granted leave to submit details in this regard at the time of final true up and the issue of entry tax shall be decided at that time only.

Table 10: Station-wise Secondary Fuel (HFO/HSD) Prices (Rs/kl) for FY 2010-11

No.	Name of Plant	Price of HFO**			Price of HSD			W.Avg. Price of Secondary Fuel		
		App. in MYT Order	Sub. in the Petition*	App. in this order	App. in MYT Order	Sub. in the Petition*	App. in this order	App. in MYT Order	Sub. in the Petition*	App. in this order
1	HTPS Korba West	33427	34194	30568	36862	41086	41091	34126	36641	34798
2	KTPS Korba East	33364	33785	31542	36450	40982	40982	33426	34013	32662
3	DSPM Korba East (Extn.)	32433	33034	33034	36549	40424	40424	33696	36565	36868

Note:* As per initial True up petition submitted by CSPGCL inclusive of entry tax;
**HFO is the main secondary fuel considered for computation of interest on working capital

Coal Cost

3.43 Based on the normative parameters as specified above and the normative LPPF, the station-wise normative Energy Charge Rate (Coal Cost per unit sent out energy) has been summarised in following table.

Table 11: Station-wise Normative ECR (Rs/ Kwh) for FY 2010-11

Sl. No.	Name of Plant	Normative Basis
1	HTPS Korba West	0.721
2	KTPS Korba East	0.853
3	DSPM TPS	0.760

3.44 Based on the above normative rates, the comparison of normative allowable coal cost for actual net generation and actual cost incurred by CSPGCL and resultant gain/ loss is summarised in the following table. The controllable factors which have an impact on coal cost are Auxiliary consumption, Specific oil consumption and transit loss.

Table 12: Station-wise primary Fuel Cost for Actual Sent Out units (Rs Crs) for FY 2010-11

Sl. No.	Name of Plant	Approved in MYT Order	Allowable on Normative Basis	Actual as submitted by CSPGCL	Gain / Loss
1	HTPS Korba West	425.20	436.30	419.77	16.53
2	KTPS Korba East	231.21	223.75	241.01	- 17.26
3	DSPM TPS	289.74	297.28	288.24	9.04
	Total – Thermal	**946.15**	**957.33**	**949.02**	**8.31**

Secondary fuel Cost

3.45 Based on the weighted average price of secondary fuel and normative SOC and GCV for the fuel, the Commission has estimated the station-wise secondary fuel oil cost for FY 2010-11 and has been summarized in following table. The difference of normative value from approved is mainly on account of change in rates and generation.

Table 13: Station-wise Secondary Fuel (Oil) Cost for Actual Generation (Rs Crs) for FY 10-11

Sl. No.	Name of Plant	Approved in MYT Order	Allowable on Normative Basis	Actual as per rate allowed	Gain / Loss
1	HTPS Korba West	22.81	23.15	9.72	13.44
2	KTPS Korba East	22.00	21.51	17.44	4.08
3	DSPM TPS	14.18	15.84	4.69	11.15
	Total – Thermal	**58.99**	**60.50**	**31.84**	**28.66**

Operation & Maintenance (O&M) Expenses

3.46 O&M expenses include expenditure on account of Employee costs, Repair & Maintenance (R&M) cost and Administration & General (A&G) expenses. CSPGCL submitted that the actual O&M cost is higher than the normative O&M expenses on account of following factors:

(a) Water charges for thermal power plant were earlier charged by WRD @ Rs. 3.60 per cum. They were increased by almost 100% to Rs. 7/- per cum from May 2010, while the annual increase allowed in O&M expenses as per MYT Order is only 5.72%. Water charges are in line with statutory levy and any increase in such charges has to be borne by CSPGCL. Hence water charges should be allowed as pass-through.

(b) Inflation has also had adverse impact on O&M cost. CSPGCL outsources various works involving engaging of labour. Minimum labour wages (semi skilled) which were Rs.138.31 per day at the beginning of the year went up by 14% during the year and became Rs.158.00 per day. During the year WPI increased by 6.5% while the AICPI for Industrial worker increased by 9.5%. This has resulted in increase in cost of material, equipment, and works as well as internal employee cost.

(c) Further specifically in case of KTPS, CSPGCL submitted that refurbishment was completed in the year 2004. While during the initial years after refurbishment, O&M expenses remained on lower side, but then they shown an increase. As such the norms for O&M were fixed on the basis of past expenditure taking into account lower O&M expenses in initial years, the average has also declined. Thus CSPGCL has requested the Commission to revise the norms for KTPS on this account.

(d) Finally, the actual O&M cost is higher than the normative cost as while setting the norms, the Commission had only considered an average of past five years O&M expenses and escalated the same on basis of inflation index estimated by it for estimating norms for MYT Control period. However, the Commission did not consider the effect of normalisation as has been considered for Hydro plants by CERC for setting O&M norms. The reason for considering normalisation is that the time value of money is different at present time than in the past and same should have been accounted for. CSPGCL had also submitted a separate representation regarding the said discrepancy in the O&M norms on 1 June 2011.

3.47 Accordingly, CSPGCL submitted that the Commission should revise the O&M norms on basis of above submissions.

Commission's View

3.48 The Commission has viewed the submissions made by CSPGCL, however it is of the view that O&M expenses are controllable parameters and can be sufficiently maintained at efficient levels through efforts of the utility. In case the Petitioner is unable to make such efforts, the inefficiencies on account of the utility shall not be pass-through to the beneficiaries and any loss on account of variation in O&M costs has to be borne by the Petitioner itself.

3.49 Further with respect to submission made by CSPGCL for change in norms for O&M, the Commission is of the opinion that the norms for MYT period were developed scientifically on the basis of past performance of the stations and the methodology followed by CERC for thermal stations. The Commission may review the methodology for resetting the O&M norms only at the time of setting up of the norms for the next control period, if necessary, and submissions in this regard shall be taken up during the period when Commission undertakes such exercise.

3.50 However, the Commission accepts the submission made by petitioner with respect to impact of uncontrollable items like inflation and statutory levies like water tax on O&M cost as these are costs which are not in hand of the petitioner and have to be revised as per prevailing rates.

3.51 As also pointed out by the Petitioner, the water tax is a statutory levy and should be pass-through as per actual as Petitioner has no control over its increase/decrease. Thus to that extent, the Commission has reviewed its allowable costs for O&M for KTPS & HTPS and now considers the water taxes as part of statutory charges. Further as the CSERC's MYT Regulations 2010 allow for pass-through of any increase related to inflation, the Commission reviews the applicable inflation rate for FY 2010-11. To estimate the actual inflation rate applicable for FY 2010-11, the Commission has considered a weighted average of WPI & CPI increase during the year in the ratio of

80:20, respectively. Accordingly the applicable revised inflation rate for FY 2010-11 works out to be 9.74% and same has been applied on base O&M expenses for FY 2009-10. It is notable that in the initial estimation the escalation factor of 5.72% was also derived by considering 80:20 mix of WPI and CPI of the five years period for FY 2003-04 to FY 2008-09. Now with actual inflation figures for FY 2010-11, firmly in place the factor has been trued up accordingly.

3.52 To estimate the revised O&M allowable expenditure for HTPS & KTPS station, the average of R&M, A&G and employee costs incurred during FY 2004-05 to FY 2008-09 has been taken. Then the abnormal expenses such as incidental stores, pension & gratuity payments and water taxes are deducted to estimate the average O&M expenses for last five years. The average O&M cost is then escalated @ 5.72% to arrive at the O&M cost for base year i.e. FY 2009-10. Further the impact of average increase in employee costs due to VI Pay Commission has also been factored in and revised base O&M cost for FY 2009-10 has been estimated. On this base cost, revised inflation index of 9.74% is applied to estimate the revised O&M allowable expenditure for FY 2010-11 after taking into account the changes in uncontrollable parameters.

3.53 However, it should be noted that the Commission has only passed thru the actual increase in inflation in FY 2010-11, in case of FY 2011-12 & FY 2012-13; the escalation factor is assumed to be 5.72% p.a. only as approved in MYT Order. This rate would be trued up at the time of true up for respective financial years.

3.54 Based on the above methodology, the following table summarises station-wise revised allowable O&M cost for normative generation for the MYT Control Period.

Table 14: Station-wise Revised O&M cost for Normative generation (Rs Crs) for MYT Control Period

No.	Name of Plant	2010-11		2011-12		2012-13	
		Cost fixed as per MYT order	Revised O&M Cost*	Cost fixed as per MYT order	Revised O&M Cost*	Cost fixed as per MYT order	Revised O&M Cost*
1	**HTPS Korba West**						
	O&M Cost	193.59	195.59	204.67	206.78	216.37	218.61
	Add: Share of HO & Holding expenses	*12.09*	*12.55*	*12.78*	*13.26*	*13.51*	*14.02*
	Revised O&M cost	**205.67**	**208.14**	**217.45**	**220.04**	**229.88**	**232.64**
2	**KTPS Korba East**						
	O&M Cost	140.77	140.83	148.82	148.89	157.34	157.41
	Add: Share of HO & Holding expenses	*6.33*	*6.57*	*6.69*	*6.95*	*7.08*	*7.35*
	Revised O&M cost	**147.10**	**147.40**	**155.51**	**155.84**	**164.41**	**164.75**
3	**DSPM Korba East (Extn)**						
	O&M Cost	96.20	96.20	101.70	101.70	107.55	107.55
	Add: Share of HO & Holding expenses	*7.19*	*7.47*	*7.61*	*7.90*	*8.04*	*8.35*
	Revised O&M cost	**103.39**	**103.67**	**109.31**	**109.60**	**115.59**	**115.90**

Note:*After taking into account impact of revised inflation index based on weighted average of actual CPI & WPI index during FY 2010-11 but excluding water charges.

3.55 However, the actual generation is different from the normative; hence the allowable value has to be computed for actual generation. In case a unit fails to generate the allowable cost will be lesser and same is true for vice-versa.

3.56 The following table summarises station-wise allowable O&M cost, actual submitted by CSPGCL and gain / loss as considered by the Commission.

Table 15: Station-wise O&M Cost (Rs Crs) for FY 2010-11

No.	Name of Plant	Allowable cost for Normative Gen	Recoverable Cost for Actual Gen	Actual as Submitted by Petitioner*	Gain / Loss
1	HTPS Korba West	208.14	229.50	196.04	33.46
2	KTPS Korba East	147.40	143.54	170.50	-26.96
3	DSPM Korba East (Extn)	103.67	119.62	92.46	27.16
	Total-Thermal	**459.21**	**492.65**	**459.00**	**33.65**

Note: * Excluding water taxes, as they are now considered separately under Statutory charges

Capital Expenditure and Capitalization

3.57 CSPGCL submitted that during FY 2010-11, the actual billing was limited to Rs 1.44 per unit only which was the existing rate applicable for previous year & also it was unable to get the receivables from CSPDCL timely & adequately. The resultant cash shortage during the year hampered the progress of capital works for the running plants. Therefore the works have got spilled over to ensuing years and same should be allowed for FY 2011-12 & FY 2012-13.

Commission's View

3.58 It is an established principle that the impact of any variation in additional capitalization is a pass through in ARR. In FY 2010-11, the Commission has observed that the actual additional capitalization incurred during the year is substantially lower on account of cash shortage reported. However, the Commission reviewed scheme-wise status of capitalization for each thermal plant and has come out with a detailed order on 'Approval of Additional Business Plan of Chhattisgarh State Power Generation Company Ltd. for Capital O&M, Capital Civil and New R&M Schemes for FY2011-12 & FY2012-13' dated 31 March 2012. In the MYT Order, the Commission reviewed the actual performance for FY 2010-11 also & approved the revised additional capitalization for the year based on actual status at end of the year.

3.59 The following table summarizes station-wise additional capitalization for FY 2010-11 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 16: Station-wise Additional Capitalisation (Rs Crs) for FY 2010-11

No.	Name of Plant	Approved in MYT Order	Submitted in the Petition	Approved in this order
1	**HTPS Korba West**			
	R&M Projects at Korba West	53.00	0.00	0.00

No.	Name of Plant	Approved in MYT Order	Submitted in the Petition	Approved in this order
	Civil Works Capital Expenditure	13.43	1.35	1.35
	O&M Capital Expenditure	23.47	1.76	1.76
	Sub-Total	**89.90**	**3.11**	**3.11**
2	**KTPS Korba East**			
	R&M Projects at Korba East	39.00	0.00	0.00
	Civil Works Capital Expenditure	2.72	1.16	0.89
	O&M Capital Expenditure	23.49	0.00	0.04
	Sub-Total	**65.21**	**1.16**	**0.93**
3	**DSPM Korba East (Extn.)**			
	Initial Spares	26.55	9.10	9.10
	ABT Meters	0.00	0.00	0.00
	Purchase of Wagons	38.62	0.00	0.00
	Civil works outside EPC contract (incl. works related ash ponds)	13.71	0.00	0.00
	Contingencies towards final Settlement of Bills, taxes & Duties, price variations claims and miscellaneous works@1% of estimated cost of Rs.2410 crores	24.10	0.00	0.00
	Sub-Total	**102.62**	**9.10**	**9.10**

Depreciation

3.60 For HTPS Petitioner submitted that the depreciation has been estimated on the depreciable value of the asset based on Straight Line Method (SLM) and for renovation schemes at rates specified in Appendix-II to the CSERC MYT Regulations, 2010. For the other two plants depreciation rates as per Appendix II of regulation have been applied. In addition, CSPGCL has proposed depreciation on additional capitalisation during the year on pro-rata basis. The rate of depreciation has been taken as approved by the Commission in the MYT Order.

Commission's View

3.61 The Commission accepts the methodology as submitted by CSPGCL and has accordingly estimated the depreciation cost for FY 2010-11. The following table summarizes station-wise depreciation for FY 2010-11 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 17: Station-wise Depreciation (Rs Crs) for FY 2010-11

No.	Name of Plant	Approved in MYT Order	Submitted in the Petition	Approved in this Order
1	HTPS Korba West	78	69	68.74
2	KTPS Korba East	31	29	29.11
3	DSPM Korba East (Extn)	116	114	113.54
	Total-Thermal	**225**	**212**	**211.39**

Return on Equity (ROE)

3.62 The ROE has been computed on the basis of grossing up of MAT on the post tax return of 15.5%. The adjustment towards actual tax liability based on the audited accounts shall account for at the time of final true up.

Commission's View

3.63 The Commission accepts the submissions made by the Petitioner, which are in line with the methodology adopted by it in the MYT Order. Accordingly estimates ROE on basis normative opening equity & equity portion of additional capitalisation on pro-rata basis at post-tax rate for Roe. However, the applicable MAT rate for FY 2010-11 is 16.99% and not 19.331% as claimed by petitioner. Thus the applicable pre-tax rate for FY 2010-11 is considered to be 18.674%. The following table summarises station-wise return on equity for FY 2010-11 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 18: Station-wise Return on Equity (Rs Crs) for FY 2010-11

No.	Name of Plant	Approved in MYT Order	Submitted in the Petition*	Approved in this order
1	HTPS Korba West	64	49	58.83
2	KTPS Korba East	38	29	34.47
3	DSPM Korba East (Extn)	117	92	110.83
	Total-Thermal	**219**	**170**	**204.13**

* Note: MAT on the ROE prayed separately. Allowed as per regulation; subject to final true up.

Interest on Loan

3.64 CSPGCL submitted that for calculation of interest on normative loan, opening normative loan is as per approved closing value for FY 2009-10. As per regulations, repayment has been considered equal to depreciation. Further the applicable interest rate has been considered at approved value in the MYT Order even though interest rates have gone up substantially. The Petitioner submitted that it has been done as actual computation for interest rates would involve some interstate settlement related to MPEB period and same would be settled after finalisation of accounts for the year.

Commission's View

3.65 The Commission estimates interest on loan on basis normative loan & debt portion of additional capitalisation on pro-rata basis at weighted average interest rates for FY 2010-11 as approved in the MYT Order. The following table summarises station-wise interest on normative loan for FY 2010-11 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 19: Station-wise Interest on Loan (Rs Crs) for FY 2010-11

No.	Name of Plant	Approved in MYT Order	Submitted in the Petition	Approved in this order
1	HTPS Korba West	30.31	27.70	27.71
2	KTPS Korba East	14.59	12.52	12.51
3	DSPM Korba East (Extn)	153.88	146.87	146.85
	Total-Thermal	**198.78**	**187.09**	**187.06**

Interest on Working Capital

3.66 CSPGCL estimated the revised working capital requirements for thermal stations as per the CSERC MYT Regulations, 2010. The normative rate of interest on working capital has been proposed to be equal to the short-term Prime Lending Rate (PLR) of State Bank of India as on April 1, 2009 i.e. 11.75%.

Commission's View

3.67 The Commission has also estimated the revised working capital requirements for FY 2010-11 in accordance with the methodology approved in the CSERC's MYT Regulations 2010.

No.	Working Capital Component	Approved in this order
	Cost of Coal	for 1.5 months
	Cost of Main Secondary Fuel Oil	for 2 months
	O & M Expenses	for 1 month
	Maintenance Spares	@ 20% of O&M cost
	Receivables	for 2 months
	Rate of Interest on Working Capital	**11.75%**

3.68 The following table summarises station-wise interest on working capital estimated for FY 2010-11 as per the MYT Order, based on actual costs submitted by CSPGCL and the recoverable costs at normative tariff.

Table 20: Station-wise Interest on Working Capital (Rs Crs) for FY 2010-11

No.	Name of Plant	Approved in MYT Order	As per Petitioner	Approved in this Order
1	HTPS Korba West	30.65	29.13	**29.39**
2	KTPS Korba East	18.72	20.00	**19.74**
3	DSPM Korba East (Extn)	24.87	24.12	**24.06**
	Total	**74.24**	**73.26**	**73.19**

Contribution to Pension Fund

3.69 CSPGCL submitted that during FY 2010-11 it has contributed Rs.77.52 Crs towards Pension & Gratuity as against the amount allowed in the MYT order of Rs. 53.31 Crs. This is because the MYT Order was issued at end of FY 2010-11 i.e. on 31 March 2011 and by then the actual contribution had already been made. However, CSPGCL has adjusted the extra provision made in FY 2010-11 in the contribution to be made during FY 2011-12. Accordingly, CSPGCL submitted that there is no variation in contribution made in P&G fund during FY 2010-11.

Commission's View

3.70 The Commission notes that the CSPGCL would adjust the additional payment made in FY 2010-11 towards P&G fund during FY 2011-12. Thus the Commission maintains the contribution made towards P&G fund as per the approved values of the MYT Order. The following table summarises station-wise contribution.

Table 21: Station-wise Contribution made to P&G Fund (Rs Crs) for FY 2010-11

No.	Name of Plant	Approved in MYT Order	Submitted in the Petition	Approved in this order
1	HTPS Korba West	23.57	23.51	23.57
2	KTPS Korba East	12.35	12.32	12.35
3	DSPM Korba East (Extn)*	0.00	0.00	0.00
	Total-Thermal	**35.92**	**35.83**	**35.92**
4	Hasdeo Bango	3.37	3.36	3.37
	Total CSPGCL	**39.28**	**39.19**	**39.28**

Note: * The approved contribution to pension fund for DSPM of Rs.14.03 Cr has been included in the normative O&M expenses approved for DSPM and not accounted for separately here.

Non-Tariff Income (NTI)

3.71 CSPGCL submitted actual non-tariff income incurred during FY 2010-11 which has been lower than the approved amount in the MYT Order. The petitioner submitted that non-tariff income is cyclic in nature and sale of scrap, etc are not undertaken every year, thus it impacts the actual NTI generated during the year.

Commission's View

3.72 The Commission noted that the submission made by the Petitioner and also taking into account that the non-tariff income cannot be projected precisely and it is only an estimate of actual cost; the Commission approves the actual NTI incurred by the Petitioner during the FY 2010-11.

3.73 The following table summarises station-wise non-tariff income for FY 2010-11 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 22: Station-wise Non-Tariff Income (Rs Crs) for FY 2010-11

No.	Name of Plant	Approved in MYT Order	Submitted in the Petition	Approved in this order
1	HTPS Korba West	7.4	4.6	4.6
2	KTPS Korba East	3.9	4.7	4.7
3	DSPM Korba East (Extn)	4.4	2.9	2.9
	Total-Thermal	**15.7**	**12.2**	**12.2**

Gain and Loss on account of fixed cost (Less SFC and O&M) variation

3.74 The Gain / Loss on account of all other components have already been accounted for in the above sections. The remaining cost components are grouped together and the gain and loss is computed collectively. These components are treated alike because their recovery depend on the same performance parameter i.e. Net Generation or sent out units. If the actual sent out units are more than the normative sent out units then there is gain in terms of per unit cost and in case of lower generation there is loss.

3.75 The normative per unit cost for such components is summarized in following table.

Table 23: Station-wise Normative Fixed Cost excluding SFC & O&M cost for FY 2010-11

No.	Name of Plant	As Allowed in this order (Rs Cr)	Normative Sent out Units MU	Per Unit Normative Cost (Rs. / kWh)
1	HTPS Korba West	203.63	5491	0.371
2	KTPS Korba East	103.51	2694	0.384
3	DSPM Korba East (Extn)	392.22	3388	1.158

3.76 Now the normative cost is normalized for the actual sent out units and compared with actual to arrive at Gain/ Loss. The same is tabulated here under

Table 24: **Station-wise Gain/ Loss in Fixed Cost (FC) excluding SFC & O&M for FY 10-11**

No.	Name of Plant	Actual Sent Out Units (MU)	Normalised FC other than SFC+O&M (Rs. Cr.)	Actual FC other than SFC+O&M (Rs. Cr)	Gain/ Loss (Rs. Cr)
1	HTPS Korba West	6055	224.54	203.62	20.91
2	KTPS Korba East	2623	100.80	103.51	-2.71
3	DSPM TPS Korba	3909	452.55	392.40	60.15
	Total	**12587**	**777.88**	**699.53**	**78.35**

Summary of True Up of the three Thermal Stations

3.77 Based on provisional true up of operational & financial performance during FY 2010-11, the summary of true up for the three thermal stations has been presented in following tables.

Table 25: True UP of ARR (Rs Crs) for FY 2010-11 for the Thermal Stations

No.	Name of Plant	Approved in MYT Order	Recoverable at Normative Rates	Actual Incurred	Aggregate Gain / Loss
2	Coal Cost	946.15	957.33	949.02	8.31
3	Secondary Fuel (Oil) Cost	58.99	60.50	31.84	28.66
4	O&M Cost	444.08	492.65	459.00	33.65
7	Other Fixed Cost (Depreciation, ROE, Int. & Fin Charges, Int. on Working Capital, P&G Fund Contribution & NTI)	736.05	777.88	699.53	78.35
	Total Annual Revenue Requirement	**2185.27**	**2288.36**	**2139.39**	**148.98**

3.78 As on net basis, the actual cost incurred is less than what would have been recoverable at normative tariff, there is net gain and the utility is entitled for retaining one third share of such gain. Accordingly CSGCL is allowed retention of Rs 49.66 Cr.

Annual Revenue Requirement for Hydro & Cogen station

3.79 As mentioned above, this Order does not undertake true up for Hydro Stations including small hydro stations and Cogen station. The true up of performance Hydro stations would be carried out at end of the MYT Control Period. The ARR for Hasdeo Bango station & SHP for FY 2010-11 has been summarised in following tables.

Table 26: ARR (Rs Crs) for FY 2010-11 for Hasdeo Bango

No.	Name of Plant	Approved in MYT Order and Not subjected to provisional True Up
1	Hasdeo Bango HPS	27.1
2	SHP Gangrel, SHP Sikasar and Korba Mini hydro	18.9
	Total Annual Fixed Cost	**46.0**

3.80 In case of Kawardha cogeneration station, as no provision has been made in the CSERC MYT Regulations, 2010, **the tariff approved by Commission Orders dated 15 January 2008 & 15 April 2010** or any such order from time to time would apply. The annual fixed cost and energy cost on the basis of approved tariff in above mentioned orders and the approved fixed and variable tariff for FY 2010-11 for Kawardha station has been summarized below.

Table 27: ARR (Rs Crs) for Kawardha Biomass Station for FY 2010-11

No.	Name of Plant	Approved in MYT Order
1.	Annual (capacity) Fixed Cost	1.04
2.	Fuel charges	1.42
	Estimated ARR	**2.46**

Note: ARR has been estimated on basis of applicable tariff as per relevant CSERC's orders & the units projected in the MYT Order.

Statutory Charges

3.81 CSPGCL incurs a number of statutory charges in course of its operations. At present these charges are Electricity Duty (ED) and cess on auxiliary power consumption, additional ED on sale (sent out energy) and water charges for hydro & thermal plants. It is a standard practice that the above statutory taxes, duties, levies, cess or any other kind of imposition(s) are pass-through to the beneficiary over and above the tariff approved by the Regulatory Commission. CSPGCL has prayed for the same.

Commission's View

3.82 The Commission accepts the contentions made by CSPGCL in this regard. However, it is noted that escalation rate of cess and water charges for hydro stations is not for the whole year and has been recomputed (to a lower value than prayed) on prorata basis for the period for which same were effective. At the same time, as prayer for exclusion of water charges from O&M cost has been accepted and O&M charges have suitably been reduced, it is impediment to include such charges in statutory charges otherwise it will lead to double exclusion. Finally, the tax implication has been computed on incurred basis and based on the prevailing rates of these charges and actual auxiliary consumption and sent out generation from all stations, the Commission has estimated the total liability for statutory charges for FY 2010-11. The statutory charges approved by the Commission to be pass-through in ARR for FY 2010-11 have been summarised in following table.

Table 28: Statutory charges (Rs Crs) for FY 2010-11 as approved by Commission

Particulars	**FY** 2010-11
Electricity Duty on Auxiliary Consumption	33.12
Cess on Auxiliary Consumption	11.32
Additional ED on Sent out energy	25.53
Water Charges for Hydro Stations	10.05
Water Tax for Thermal Stations *(KTPS & HTPS)*	23.12
Total	**103.13**

SLDC Charges

3.83 In addition to above, SLDC charges are also levied on CSPGCL which are pass-through in ARR and have to be approved by the Commission. However it is to be noted that CSPGCL did not incur any SLDC charges during FY 2010-11.

Commission's View

3.84 According to the submission made by CSPGCL that no expenditure has been made on account of SLDC charges during FY 2010-11, the Commission approves no expenditure under this head for FY 2010-11.

Revenue Surplus/Deficit for FY 2010-11

3.85 Based on above true up analysis, the revenue surplus/deficit of CSPGCL after the provisional true up for FY 2010-11 has been summarized below.

Table 29: Revenue Surplus/ Deficit (Rs Cr) for FY 2010-11 as approved now by Commission

S No.	Particulars	*UoM*	FY 2010-11
1	ARR for three Thermal Stations	*Rs. Crores*	**2139.39**
2	*Add: Utility's share in Net Gain/ Loss*	*Rs. Crores*	*49.66**
3	**ARR for Hydro & SHP**	*Rs. Crores*	**45.98**
4	**ARR for Kawrdha Cogen**	*Rs. Crores*	**2.46**
5	**Statutory Charges due Statutory Charges due**	*Rs. Crores*	**103.13**
3	**Total ARR approved now**	*Rs. Crores*	**2340.63**
4	Scheduled Generation	*MU*	12763.40
5	**Average Tariff allowed**	***Rs/kWh***	**1.44**
6	Recovery as per existing Tariff rate	*Rs. Crores*	1837.93
7	*Add: Surplus/(Deficit) carried forward from PY*	*Rs. Crores*	*521.93*
8	**Total recovery made during the year**	***Rs. Crores***	**2359.86**
9	Surplus/(Deficit) for Cr. FY	*Rs. Crores*	19.23
10	*Less: Adjustment made in FY 2010-11*	*Rs. Crores*	*35.11*
11	**Net Surplus/ (Deficit) to be c/f to next FY**	***Rs. Crores***	**(15.88)**

Note: *1/3rd of Rs. 148.98 Crs. As mentioned in table 25

3.86 The approved revenue deficit for FY 2010-11 after provisional true up is Rs.16 Crs and this shall be adjusted in approved ARR for FY 2011-12.

Revised Annual Revenue Requirement for FY 2011-12 and FY 2012-13

3.87 As mentioned in the previous section on Provisional Truing up for FY 2010-11, the Commission in the present Tariff Order is undertaking provisional truing up and annual performance review (APR) for thermal generating stations alone and not for hydro plants (including small hydro stations) and Kawardha Cogen Station, the True up for these stations would be carried out at the end of the control period.

3.88 This section contains a summary of the revised ARR for FY 2011-12 and FY 2012-13 based on revised operational performance as submitted by CSPGCL and the analysis/observation/of the Commission thereof.

Performance Parameters of the thermal Generating Stations

3.89 The performance parameters for the thermal generating stations during FY 2011-12 and FY 2012-13 as approved in MYT Order, as proposed by CSPGCL in its petition and as approved now by Commission, are summarised as follows.

A) Plant Load Factor (PLF)

3.90 CSPGCL submitted the PLF norms approved by the Commission for KTPS at 78.25% and 78.50% for FY 2011-12 and FY 2012-13 respectively are unachievable as the plant has been operational for 40 years and further, the inferior coal quality over a long span of time has also contributed significant wear and tear of the plant. Further submitted that both the 120 MW Units of KTPS are having high eccentricity & high vibration resulting in load restriction to around 90-105 MW. Hence CSPGCL has submitted that the target for PLF for KTPS should be maintained at 76% for FY 2011-12 & FY 2012-13.

3.91 In case of DSPM, CSPGCL submitted that during FY 2011-12 both the Units, 1 and 2 suffered rare unfortunate back to back accidents. The first accident occurred during routine overhauling of Unit No.1, where minor cracks were detected in one of the LP turbine blade which resulted in a forced outage of set for 48 days. In the second accident Unit -2 generator transformer caught fire and this caused the Unit to shut down for a period of 9 months. In this regard, CSPGCL submitted that the Commission may take into consideration the above mentioned incidents as *'Force Majeure'* accidents while approving PLF for FY 2011-12. Further in case of FY 2012-13, the plant is expected to perform only at 83% and same should be allowed by the Commission.

3.92 The following table summarises the PLF approved in MYT Order & submitted by CSPGCL for FY 2011-12 and FY 2012-13.

Table 30: Station-wise PLF (%) for FY 2011-12 & FY 2012-13

Sl. No.	*Name of Plant*	*FY 2011-12*		*FY 2012-13*	
		Approved in MYT Order	*Submitted in the Petition*	*Approved in MYT Order*	*Submitted in the Petition*
1	*HTPS Korba West*	*82.00*	*82.00*	*82.00*	*82.00*
2	*KTPS Korba East*	*78.25*	*76.00*	*78.50*	*76.00*
3	*DSPM Korba East (Extn.)*	*85.00*	*67.00*	*85.00*	*82.88*

Commission's View

3.93 The Commission reiterates that the PLF norms approved for CSPGCL's generating stations in the CSERC's MYT Regulations 2010 were based on the detailed deliberation and after taking cognizance of the past performance of the plants, design, vintage, age & other such factors affecting the PLF of each generating station. Thus there is no merit in reviewing the norms in the middle of the MYT control period.

3.94 In case of KTPS, the Commission states that the petitioner's claim of approving a lower PLF for FY 2011-12 & FY 2012-13 will defeat the whole purpose of setting efficiency targets. Any such change would also act as a deterrent for the utility to make any efforts to reach optimal level of performance. Thus the Commission approves the normative PLF for FY 2011-12 & FY 2012-13 for KTPS & HTPS.

3.95 In case of DSPM, the Commission notes that any outage or non-availability of stations due to acts of God & force majeure events beyond the control of the generating company and shall be considered as uncontrollable parameter in ARR. However the onus of satisfying the Commission to the effect that outage was due to such 'uncontrollable' events is on the Generating Company. However, CSPGCL in this case, failed to provide any conclusive evidence to such effect. Thus in absence of any concrete evidence at this stage, the Commission is of the view that it is inappropriate to pass the impact to the end consumers. Therefore, for DSPM the Commission has considered the PLF norms for FY 2011-12 and FY 2012-13 as approved in the MYT Order. The following table summarises the revised approved PLF for FY 2011-12 & FY 2012-13.

Table 31: Station-wise PLF (%) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in this order	
		FY 2011-12	FY 2012-13
1	HTPS Korba West	82.00	82.00
2	KTPS Korba East	78.25	78.50
3	DSPM Korba East (Extn.)	85.00	85.00

B) Auxiliary Consumption

3.96 The station-wise revised auxiliary consumption submitted for FY 2011-12 and FY 2012-13 along with approved auxiliary consumption in the MYT Order has been summarized in following table.

Table 32: Station-wise Auxiliary Cons. (%) for FY 2011-12 & FY 2012-12

Sl. No.	Name of Plant	FY 2011-12		FY 2012-13	
		Approved in MYT Order	Submitted in the Petition	Approved in MYT Order	Submitted in the Petition
1	HTPS Korba West	9.00	9.90	9.00	9.90
2	KTPS Korba East	10.35	11.00	10.30	11.00
3	DSPM Korba East (Extn.)	9.00	9.00	9.00	9.00

3.97 CSPGCL submitted that the reason for deviation in auxiliary consumption for HTPS/ KTPS for FY 2011-12 and FY 2012-13 is due to change in methodology for estimation of auxiliary consumption which has been summarized in the truing up section of this order. Thus, in accordance to the revision in methodology CSPGCL submitted that norm for auxiliary consumption for HTPS for FY 2011-12 & FY 2012-13 should be increased by approx 0.91% to account for Transformer losses i.e. GT, UAT & Reserve transformer losses and Generator Static Excitation system losses.

Commission's View

3.98 As mentioned in the truing up section of this order, the Commission clarifies that in the MYT Order the Commission has adopted the same methodology as adopted by CERC in its Tariff Regulations 2009. Further, the Commission has observed that CSPGCL has not submitted any appropriate reason for the increase in auxiliary consumption other than change in definition. In this regard, the Commission does not find any merit to revise the auxiliary consumption norms as approved in the MYT Order. The station-wise auxiliary consumption for FY 2010-11 as approved by Commission now has been summarized in following table.

Table 33: Station-wise Auxiliary Cons. (%) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in this order	
		FY 2011-12	FY 2012-13
1	HTPS Korba West	9.00	9.00
2	KTPS Korba East	10.35	10.30
3	DSPM Korba East (Extn.)	9.00	9.00

C) Generation from thermal stations

3.99 The following table summarises the station-wise gross & net generation based on the revised PLF & auxiliary consumption as submitted by CSPGCL for FY 2011-12 and FY 2012-13 along with approved gross & net generation as given in the MYT Order.

Table 34: Station-wise Gross & Net Generation (MU) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	FY 2011-12				FY 2012-13			
		Gross Generation		Net Generation		Gross Generation		Net Generation	
		Approved in MYT Order	Submitted in the Petition	Approved in MYT Order	Submitted in the Petition	Approved in MYT Order	Submitted in the Petition	Approved in MYT Order	Submitted in the Petition
1	HTPS Korba West	6050	6050	5506	5451	6034	6034	5491	5437
2	KTPS Korba East	3024	2937	2711	2614	3026	2929	2714	2607
3	DSPM Korba East (Extn.)	3733	2943	3397	2678	3723	3630	3388	3303

Commission's View

3.100 On the basis of the approved PLF & auxiliary consumption and the installed capacity, the Commission has approved the revised station-wise gross & net generation for FY 2011-12 & FY 2012-13 as summarized in following table.

Table 35: Station-wise Gross and Net Generation (MU) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in this order			
		FY 2011-12		FY 2012-13	
		Gross Generation	Net Generation	Gross Generation	Net Generation
1	HTPS Korba West	6050	5506	6034	5491
2	KTPS Korba East	3024	2711	3026	2714
3	DSPM Korba East (Extn.)	3733	3397	3723	3388

D) Station Heat Rate (SHR)

3.101 CSPGCL submitted that in case of HTPS & DSPM it has been performing within the norms specified by the Commission and thus it has proposed to apply the same norms for SHR for FY 2011-12 & FY 2012-13. However in case of KTPS, CSPGCL has specified that the actual SHR remains higher than the norms due to the inherent specifications of plant related to its design, vintage, age, etc and not because of any inefficiency on part of the Petitioner. Accordingly CSPGCL submits that in case of KTPS the Commission is requested to revise the norm for SHR for KTPS and bring it in line with the actual SHR achieved in previous year.

Commission's View

3.102 As mentioned earlier, the Commission had set the targets for SHR after taking cognizance of the past performance of the plants, design, vintage, age & other such factors affecting the determination of SHR and as such they shall not be revisited within the MYT Control Period. In case of KTPS the Commission, after taking into account reasonable variation in design heat rate after refurbishment, has approved SHR of 2950 kCal/kWh & 2925 kCal/kWh for FY 2011-12 & FY 2012-13, respectively. Thus the Commission approves the Norms for SHR as approved by it in MYT Order.

3.103 The following table summarises the station-wise heat rate for FY 2011-12 and FY 2012-13 as approved in MYT Order, submitted in the petition and approved now by the Commission.

Table 36: Station-wise Heat Rate (kCal/kWh) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in MYT Order		Submitted in the Petition		Approved in this order	
		FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13
1	HTPS Korba West	2650	2650	2650	2650	2650	2650
2	KTPS Korba East	2950	2925	3200	3200	2950	2925
3	DSPM Korba East (Extn.)	2500	2500	2500	2500	2500	2500

E) *Specific Oil Consumption (SOC)*

3.104 CSPGCL submitted that it has been able to achieve and perform exceptionally well in case of SOC and thus has not revised the norms for SOC as approved by the Commission in the MYT Order.

Commission's View

3.105 The Commission approves the normative SOC for FY 2011-12 & FY 2012-13 which is in line with submission made by the Petitioner.

3.106 The following table summarizes the station-wise SOC for FY 2011-12 & FY 2012-13 as approved in the MYT Order, as submitted in the petition and as approved in this order.

Table 37: Station-wise SOC (ml/kWh) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in MYT Order		Submitted in the Petition		Approved in this order	
		FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13
1	HTPS Korba West	1.00	1.00	1.00	1.00	1.00	1.00
2	KTPS Korba East	2.15	2.00	2.15	2.00	2.15	2.00
3	DSPM Korba East (Extn.)	1.00	1.00	1.00	1.00	1.00	1.00

F) *Transit & stacking loss of coal*

3.107 CSPGCL submitted the revised Transit & stacking loss of coal for FY 2011-12 & FY 2012-13 which is in line with the norms set as per the CSERC's MYT Regulations 2010, except in case of DSPM. The Petitioner submits that DSPM is not a pit head station and its norm should be fixed at 0.80% instead of 0.75% & 0.70% for FY 2011-12 & FY 2012-13, respectively.

Commission's View

3.108 The Commission observes that transit losses are controllable parameters and as such utility should make every effort to reduce such losses. In such a case the Commission maintains the norms for transit losses as per the MYT Order for all three thermal stations.

3.109 The following table summarises the Transit & stacking loss of coal for FY 2011-12 and FY 2012-13 as approved in MYT Order, as submitted in petition and as approved in this order.

Table 38: Station-wise Transit & stacking loss (%) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in MYT Order		Submitted in the Petition		Approved in this order	
		FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13
1	HTPS Korba West	0.30	0.30	0.30	0.30	0.30	0.30
2	KTPS Korba East	1.20	1.15	1.20	1.15	1.20	1.15
3	DSPM Korba East (Extn.)	0.75	0.70	0.80	0.80	0.75	0.70

G) *Calorific value of fuel*

3.110 CSPGCL submitted the revised gross calorific value (GCV) for Coal for FY 2011-12 and same GCV has been adopted for FY 2012-13 subject to true up as per actual. Further the GCV for secondary fuel has been estimated to be 10000 kCal/lt for FY 2011-12 & FY 2012-13.

Commission's View

3.111 As GCV of fuel is uncontrollable in nature, the Commission approves the revised estimates submitted for GCV for coal fired for FY 2011-12 and adopts the same for FY 2012-13. Further the GCV for secondary fuel has been approved at 10000 kCal/lt for FY 2011-12 & FY 2012-13 as projected by CSPGCL.

3.112 The following table summarises the GCV of coal fired for each thermal station for FY 2011-12 and FY 2012-13 as approved in the MYT Order, as submitted in the petition, and as approved in this order.

Table 39: Station-wise GCV of Coal fired (kCal/Kg) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in MYT Order		Submitted in the Petition		Approved in this order	
		FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13
1	HTPS Korba West	3591	3591	3439	3439	3439	3439
2	KTPS Korba East	3171	3171	3323	3323	3323	3323
3	DSPM Korba East (Extn.)	3455	3455	3432	3432	3432	3432

H) *Landed Price of Primary Fuel (LPPF) & Secondary Fuel*

3.113 As per the submission made by CSPGCL, the landed price of primary fuel/coal for all thermal stations for FY 2011-12 was projected based on estimated LPPF for first half of the year and nominal increase for remaining half of the year; thus overall increase projected over previous year LPPF was approx. 2.5%. Further projections for FY 2012-13 were made by increasing the estimated LPPF for FY 2011-12 by approx. 7.3% on account of change in formula for coal pricing by CIL, inflation, etc. Further the transportation cost of coal is also loaded on to LPPF to estimate the total LPPF for coal for FY 2011-12 & FY 2012-13.

3.114 In case of Secondary fuel, CSPGCL submitted that it uses a mix of HSD & HFO as secondary fuel in all three thermal stations. As per the initial petition, CSPGCL had assumed the actual weighted average price of HSD & HFO for FY 2010-11 to be same for projecting secondary fuel cost for FY 2011-12 & FY 2012-13.

3.115 The following table summarises the station-wise projected LPPF & price of secondary fuel (HFO/HSD) for FY 2011-12 and FY 2012-13 as submitted as per initial petition by CSPGCL.

Table 40: Station-wise LPPF (Rs/MT) & HFO/HSD (Rs/kl) for FY 2011-12 & FY 2012-13 as submitted in the Petition

Sl. No.	Name of Plant	LPPF		HFO	HSD	W.Avg. Price of Secondary fuel
		FY 2011-12	FY 2012-13	FY 2011-12 & FY 2012-13	FY 2011-12 & FY 2012-13	FY 2011-12 & FY 2012-13
1	HTPS Korba West	901.68	966.65	34,194	41,086	36,641
2	KTPS Korba East	878.84	942.09	33,785	40,982	34,013
3	DSPM Korba East (Extn.)	978.08	1,041.37	33,034	40,424	36,565

Commission's View

3.116 The Commission, during TVS, asked the utility to submit actual month-wise data for quantity consumed, quantity supplied & price paid for coal, HFO & HSD including transportation cost during FY 2011-12. Accordingly, CSPGCL submitted the actual data for the first 9 months of FY 2011-12 for LPPF & secondary fuel. The Commission analysed the data submitted by CSPGCL and noted that price of coal & secondary fuel estimated now comes out to be higher than the earlier projections made by CSPGCL. The Commission asked the petitioner to provide details for the increase. CSPGCL submitted that in case of LPPF, increase is on account of additional excise duty on coal and in case of secondary fuel submitted that in initial petition it had taken the price for FY 2010-11 only, however with new information now available, the Commission should consider the actual payment made. In case of LPPF, Commission observes that excise duty on coal is a statutory charge and has to be pass-through in ARR. Thus, the Commission analysed the actual data for fuel consumption & fuel price for the first 9 months of FY 2011-12, and accordingly estimated the Landed Price of Primary fuel (LPPF) for coal & weighted average price for secondary fuel for FY 2011-12.

3.117 In case of secondary fuel, Commission validated the submission made by CSPGCL by reviewing the actual oil bills for FY 2011-12. As the fuel price is uncontrollable parameter and same has to be pass-through in ARR, the Commission considers the latest data made available for computation of weighted average price of secondary fuel for FY 2011-12.

3.118 For projecting the LPPF for FY 2012-13, the Commission has not considered any increase in the estimated LPPF for FY 2011-12. However the impact of incentive paid to SECL has been incorporated in line with the methodology followed in MYT Order. While the weighted average price of secondary fuel estimated for FY 2011-12 was considered for FY 2012-13 also subject to true up on availability of actual data.

3.119 Following table summarizes the station-wise LPPF & price of secondary fuel (HFO/HSD) for FY 2011-12 and FY 2012-13 as approved by Commission in this order.

Table 41: Station-wise LPPF (Rs/MT) & HFO/HSD (Rs/kl) for FY 2011-12 & FY 2012-13 as Approved in this order

Sl. No.	Name of Plant	LPPF		HFO*	HSD **	W.Avg. Price of Secondary fuel
		FY 2011-12	FY 2012-13	FY 2011-12 & FY 2012-13	FY 2011-12 & FY 2012-13	FY 2011-12 & FY 2012-13
1	HTPS Korba West	948.36	958.13	44,321	45,298	44,886
2	KTPS Korba East	924.15	933.03	43,169	44,375	43,402
3	DSPM Korba East (Extn.)	1014.07	1023.11	43,517	44,015	43,884

Note:* HFO is the main secondary fuel considered for computation of interest on working capital; ** HSD is considered to be other secondary fuels consumed

Fuel Cost

3.120 Based on the operational parameters as specified above and the projected fuel prices for LPPF, the station-wise fuel cost (excluding cost of secondary fuel) for FY 2011-12 and FY 2012-13 as approved in the MYT Order, as submitted in the petition, and as approved in this order.

Table 42: Station-wise Fuel Cost (Rs Crs) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in MYT Order		Submitted in the Petition		Approved in this order	
		FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13
1	HTPS Korba West	391	390	419	448	440	444
2	KTPS Korba East	241	239	247	264	246	247
3	DSPM Korba East (Extn.)	261	260	209	274	275	276
	Total – Thermal	**893**	**889**	**875**	**986**	**961**	**967**

Secondary fuel Cost

3.121 Based on the weighted average price of secondary fuel and normative SOC and GCV, the Commission has estimated the station-wise secondary fuel oil cost for FY 2011-12 and FY 2012-13 as approved in the MYT Order, as submitted in the petition, and as approved in this order.

Table 43: Station-wise Secondary Fuel Oil Cost (Rs Crs) for FY 2011-12 & FY 2012-13

Sl. No.	Name of Plant	Approved in MYT Order		Submitted in the Petition		Approved in This order	
		FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13
A	**HTPS Korba West**						
1	Units of Generation at Norm. PLF	6050	6034	6050	6034	6050	6034
2	Specific Fuel Oil Consumption (SFC)	1.00	1.00	1.00	1.00	1.00	1.00
3	Calorific Value of Secondary Fuel (CVSF)	10000	10000	10000	10000	10000	10000
4	Weighted Average Price of Secondary Fuel	34,126	34,126	44,886 *	44,886*	44,886	44,886

Sl. No.	Name of Plant	Approved in MYT Order		Submitted in the Petition		Approved in This order	
		FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13	FY 2011-12	FY 2012-13
5	Weighted Average Price of Main Secondary Fuel (HFO)	33,427	33,427	44,321*	44,321*	44,321	44,321
6	Average Cost of Secondary Fuel per Month (1*2*4 / 12/ 10^7)	1.721	1.716	2.263	2.257	2.263	2.257
7	Average Cost of Main Secondary Fuel per Month (1*2*5 / 12/ 10^7)	1.685	1.681	2.235	2.229	2.235	2.229
8	**Secondary fuel oil cost (6 * 12)**	**20.65**	**20.59**	**27.16**	**27.08**	**27.16**	**27.08**
B	**KTPS Korba East**						
1	Units of Generation at Norm. PLF	3024	3026	2937	2929	3024	3026
2	Specific Fuel Oil Consumption (SFC)	2.15	2.00	2.15	2.00	2.15	2.00
3	Calorific Value of Secondary Fuel (CVSF)	10000	10000	10000	10000	10000	10000
4	Weighted Average Price of Secondary Fuel	33,426	33,426	43,402*	43,402*	43,402	43,402
5	Weighted Average Price of Main Secondary Fuel (HFO)	33,364	33,364	43,169*	43,169*	43,169	43,169
6	Average Cost of Secondary Fuel per Month (1*2*4 / 12/ 10^7)	1.811	1.686	2.284	2.119	2.352	2.189
7	Average Cost of Main Secondary Fuel per Month (1*2*5 / 12/ 10^7)	1.808	1.682	2.272	2.108	2.339	2.177
8	**Secondary fuel oil cost (6 * 12)**	**21.73**	**20.23**	**27.41**	**25.43**	**28.22**	**26.26**
C	**DSPM Korba East (Extn.)**						
1	Units of Generation at Norm. PLF	3733	3723	2943	3630	3733	3723
2	Specific Fuel Oil Consumption (SFC)	1.00	1.00	1.00	1.00	1.00	1.00
3	Calorific Value of Secondary Fuel (CVSF)	10000	10000	10000	10000	10000	10000
4	Weighted Average Price of Secondary Fuel	33,696	33,696	43,884*	43,884*	43,884	43,884
5	Weighted Average Price of Main Secondary Fuel (HFO)	32,433	32,433	43,517*	43,517*	43,517	43,517
6	Average Cost of Secondary Fuel per Month (1*2*4 / 12/ 10^7)	1.048	1.045	1.076	1.328	1.365	1.362
7	Average Cost of Main Secondary Fuel per Month (1*2*5 / 12/ 10^7)	1.009	1.006	1.067	1.316	1.354	1.350
8	**Secondary fuel oil cost (6 * 12)**	**12.58**	**12.55**	**12.91**	**15.93**	**16.42**	**16.34**

Note:* As per additional submission of actual data for FY 2011-12 for first 9 months during the year

Additional Capitalization

3.122 CSPGCL submitted revised estimates for additional capitalization for FY 2011-12 & FY 2012-13 in a separate petition for Revised Business plan for FY 2011-12 & FY 2012-13 to the Commission. Based on the business plan, CSPGCL has projected the additional capitalization for FY 2011-12 & FY 2012-13.

Commission's View

3.123 As the additional capitalization is an uncontrollable parameter, the impact of any variation shall be pass through in ARR. CSPGCL had submitted a separate petition for Capital expenditure & capitalization for FY 2011-12 & FY 2012-13 to the Commission. The Commission has analyzed scheme-wise components of capitalization proposed and based on actual status of capitalization during the year has approved the revised business plan & capitalization schedule for CSPGCL for FY 2011-12 & FY 2012-13 in its Order dated 31 March 2012.

3.124 The following table summarizes station-wise additional capitalization for FY 2011-12 and FY 2012-13 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 44: Station-wise Additional Capitalisation (Rs Crs) for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in This order	Approved in MYT Order	Submitted in the Petition	Approved in This order
1	**HTPS Korba West**						
	R&M Projects at Korba West	24.82	61.00	47.00	116.00	163.82	157.00
	Civil Works Capital Expenditure	0.00	33.05	19.53	0.00	14.95	24.92
	O&M Capital Expenditure	0.00	10.24	4.28	0.00	38.72	23.61
	Sub-Total	**24.82**	**104.28**	**70.81**	**116.00**	**217.49**	**205.53**
2	**KTPS Korba East**						
	R&M Projects at Korba East	16.00	29.00	34.45	5.00	77.00	77.00
	Civil Works Capital Expenditure	0.00	8.84	4.15	0.00	9.90	5.56
	O&M Capital Expenditure	0.00	28.05	1.25	0.00	23.98	29.20
	Sub-Total	**16.00**	**65.89**	**39.85**	**5.00**	**110.88**	**111.76**
3	**DSPM Korba East (Extn.)**						
	ABT Meters	0.00	1.34	0.00	0.00	0.08	0.00
	Purchase of Wagons	0.00	0.00	0.00	0.00	3.20	3.20
	Civil works outside EPC contract (incl. works related ash ponds)	1.00	0.00	0.00	0.00	0.00	0.00
	New capital & Civil schemes (Installation of ambient air quality system as per PCB directives)	0.00	0.00	0.00	0.00	0.00	0.00
	Sub-Total	**1.00**	**1.34**	**0.00**	**0.00**	**3.28**	**3.20**

Depreciation

3.125 The Petitioner submitted that the depreciation has been estimated on the depreciable value of the asset based on Straight Line Method (SLM) and at rates specified in Appendix-II to the CSERC MYT Regulations, 2010. In addition, CSPGCL has proposed depreciation on additional capitalisation during the year on pro-rata basis.

3.126 The Petitioner submitted that the rate of depreciation has been taken as approved by the Commission in the MYT Order.

Commission's View

3.127 The Commission accepts the methodology as submitted by CSPGCL and has accordingly estimated the depreciation cost for FY 2011-12 & FY 2012-13.

3.128 The following table summarizes station-wise depreciation for FY 2011-12 & FY 2012-13as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 45: Station-wise Depreciation (Rs Crs) for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in This order	Approved in MYT Order	Submitted in the Petition	Approved in This order
1	HTPS Korba West	96	91	82	7	51	39
2	KTPS Korba East	33	31	30	33	35	34
3	DSPM Korba East (Extn.)	119	114	114	119	114	114
	Sub-Total	**248**	**236**	**226**	**159**	**200**	**187**

Return on Equity (ROE)

3.129 CSPGCL has estimated the station-wise ROE for FY 2011-12 & FY 2012-13 on basis of normative opening equity & equity portion of additional capitalisation on pro-rata basis at post-tax ROE rate of 19.377% based on the MAT rate applicable for FY 2011-12 of 20.01%.

Commission's View

3.130 As per the methodology followed by the Commission in the MYT Order the revised post-tax ROE has been estimated for FY 2011-12 & FY 2012-13 on basis of applicable MAT rate for the year under consideration. In FY 2011-12, applicable MAT rate was 19.931% and accordingly the post-tax ROE has been considered to be 19.358%. The applicable MAT rate for FY 2012-13 as per the Budget 2012 is 20.008% and accordingly, the Commission has considered the post-tax rate of ROE at 19.377%. The following table summarises station-wise return on equity for FY 2011-12 & FY 2012-13 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 46: Station-wise Return on Equity (Rs Crs) for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in This order	Approved in MYT Order	Submitted in the Petition	Approved in This order
1	HTPS Korba West	67	64	63	71	74	71
2	KTPS Korba East	40	38	37	41	43	41
3	DSPM Korba East (Extn.)	120	115	115	120	115	115
	Sub-Total	**227**	**217**	**215**	**232**	**232**	**227**

Interest on Loan

3.131 CSPGCL submitted that for calculation of interest on normative loan, opening normative loan is as per approved closing value for previous year. As per regulations, repayment has been considered equal to depreciation during the year. Further the applicable interest rate has been considered at approved value in the MYT Order.

Commission's View

3.132 The Commission accepts the approach adopted by CSPGCL and accordingly estimates interest on loan on basis normative loan & debt portion of additional capitalisation on pro-rata basis at weighted average interest rates for FY 2011-12 & FY 2012-13 as approved in the MYT Order. The following table summarises station-wise interest on normative loan for FY 2011-12 & FY 2012-13 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 47: Station-wise Interest on Loan (Rs Crs) for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in This order	Approved in MYT Order	Submitted in the Petition	Approved in This order
1	HTPS Korba West	25	23	22	25	27	26
2	KTPS Korba East	13	11	10	11	14	12
3	DSPM Korba East (Extn.)	145	137	137	131	124	124
	Sub-Total	**183**	**171**	**169**	**167**	**165**	**162**

Operation & Maintenance (O&M) Expenses

3.133 O&M expenses include expenditure on account of Employee costs, Repair & Maintenance (R&M) cost and Administration & General (A&G) expenses. CSPGCL submitted that the norm for O&M cost be revised on account of impact of increase in water taxes & inflationary increase. Also the norm should be revised on the basis for normalisation of past expenses.

Commission's View

3.134 As detailed in the section for true up of this order, the Commission has revised the allowable O&M cost for HTPS & KTPS for FY 2011-12 & FY 2012-13 taking into account the impact of uncontrollable parameters such as statutory taxes & inflation. With respect to review of the methodology for ascertaining O&M norms by considering normalisation, the same shall be deliberated when the Commission takes up the exercise for revising/ framing new regulations separately.

3.135 The following table summarises the station-wise O&M cost for FY 2011-12 & FY 2012-13 as approved in the MYT Order, actual submitted by CSPGCL and revised norms approved now by Commission.

Table 48: Station-wise O&M cost (Rs Crs) for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order*	Submitted in the Petition*	Approved in this Order	Approved in MYT Order*	Submitted in the Petition*	Approved in this Order
1	**HTPS Korba West**						
	Normative O&M cost	204.67	205.85	206.78	216.37	218.83	218.61
	Add: HO & Holding Co. Exps.	12.78	14.43	13.26	13.51	15.26	14.02
	Total O&M cost	**217.45**	**220.28**	**220.04**	**229.88**	**234.09**	**232.64**
2	**KTPS Korba East**						
	Normative O&M cost	148.81	186.25	148.89	157.32	198.16	157.41
	Add: HO & Holding Co. Exps.	6.69	7.56	6.95	7.08	7.99	7.35
	Total O&M cost	**155.51**	**193.81**	**155.84**	**164.40**	**206.15**	**164.75**
3	**DSPM Korba East (Extn.)**						
	Normative O&M cost	101.7	101.7	101.7	107.55	107.55	107.55
	Add: HO & Holding Co. Exps.	7.61	8.59	7.90	8.04	9.08	8.35
	Total O&M cost	**109.31**	**110.29**	**109.60**	**115.59**	**116.63**	**115.90**

Note:* O&M cost approved in MYT Order & estimated O&M cost submitted now by CSPGCL includes cost of water tax for thermal stations.

Contribution to Pension Fund

3.136 CSPGCL submitted that it shall restrict the contribution to P&G fund as per approved by the Commission in the MYT Order for FY 2011-12 & FY 2012-13.

Commission's View

3.137 As per CSPGCL's submission, the Commission has approved the same contribution to P&G fund as approved in MYT Order, any change as per actual shall be trued up on basis of provisional/actual accounts at the time of true up for respective years.

3.138 The following table summarises station-wise contribution to be made to P&G funds for FY 2011-12 & FY 2012-13 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 49: Station-wise Contribution made to P&G Fund (Rs Crs) for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this order	Approved in MYT Order	Submitted in the Petition	Approved in this order
1	HTPS Korba West	23.57	23.57	23.57	23.57	23.57	23.57
2	KTPS Korba East	12.35	12.35	12.35	12.35	12.35	12.35
3	DSPM Korba East (Extn.)*	0.00	0.00	0.00	0.00	0.00	0.00
	Total – Thermal	**35.92**	**35.92**	**35.92**	**35.92**	**35.92**	**35.92**
4	Hasdeo Bango	3.37	3.36	3.37	3.37	3.36	3.37
	Total - CSPGCL	**39.28**	**39.28**	**39.28**	**39.28**	**39.28**	**39.28**

Note: * The approved contribution to pension fund for DSPM of Rs.14.03 Cr has been included in the normative O&M expenses approved for DSPM and not accounted for separately here.

Interest on Working Capital

3.139 CSPGCL has estimated the revised working capital requirements for thermal stations as per the CSERC MYT Regulations, 2010. The normative rate of interest on working capital has been proposed to be equal to the short-term Prime Lending Rate (PLR) of State Bank of India as on 1 April of beginning of ensuing year.

Commission's View

3.140 The Commission estimated the working capital requirements for FY 2011-12 & FY 2012-13 in accordance with the methodology approved in the CSERC's MYT Regulations 2010. For determination of rate of interest, the CSERC's MYT Regulations 2010 does not allow for change in normative rate of interest on working capital on year to year basis during the control period, thus the Commission has approved the normative interest rate @ 11.75% as approved in MYT Order.

3.141 The following table summarises station-wise interest on working capital estimated for FY 2011-12 & FY 2012-13 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 50: Station-wise Interest on Working Capital (Rs Crs) for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this order	Approved in MYT Order	Submitted in the Petition	Approved in this order
1	**HTPS Korba West**						
	Cost of Coal for 1.5 months	48.87	52.35	55.06	48.74	55.97	55.48
	Cost of Main Secondary Fuel Oil for 2 months	3.37	4.47	4.47	3.36	4.46	4.46
	O & M Expenses for 1 month	18.12	17.27	18.34	19.16	18.26	19.39
	Maintenance Spares @ 20% of O&M cost	43.49	41.45	44.01	45.98	43.82	46.53

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this order	Approved in MYT Order	Submitted in the Petition	Approved in this order
	Receivables for 2 months	143.92	147.36	150.94	130.53	150.73	148.41
	Total Working Capital	**257.77**	**262.90**	**272.82**	**247.76**	**273.24**	**274.26**
	Applicable Rate of Interest	11.75%	13.00%	11.75%	11.75%	14.75%	11.75%
	Interest on Working Capital	**30.29**	**34.18**	**32.06**	**29.11**	**40.30**	**32.23**
2	**KTPS Korba East**						
	Cost of Coal for 1.5 months	30.12	30.87	30.79	29.89	33.01	30.85
	Cost of Main Secondary Fuel Oil for 2 months	3.62	4.54	4.68	3.36	4.22	4.35
	O & M Expenses for 1 month	12.96	15.02	12.99	13.70	15.88	13.73
	Maintenance Spares @ 20% of O&M cost	31.10	36.05	31.17	32.88	38.11	32.95
	Receivables for 2 months	88.68	94.15	89.13	89.01	101.25	92.15
	Total Working Capital	**166.47**	**180.64**	**168.75**	**168.84**	**192.47**	**174.04**
	Applicable Rate of Interest	11.75%	13.00%	11.75%	11.75%	14.75%	11.75%
	Interest on Working Capital	**19.56**	**23.48**	**19.83**	**19.84**	**28.39**	**20.45**
3	**DSPM Korba East (Extn)**						
	Cost of Coal for 1.5 months	43.46	34.80	45.78	43.34	45.71	46.06
	Cost of Main Secondary Fuel Oil for 2 months	2.02	2.13	2.71	2.01	2.63	2.70
	O & M Expenses for 1 month	7.94	9.19	7.96	8.46	9.72	8.49
	Maintenance Spares @ 20% of O&M cost	19.06	22.06	19.11	20.31	23.33	20.37
	Receivables for 2 months	130.91	119.98	131.36	129.02	131.47	130.56
	Total Working Capital	**203.39**	**188.16**	**206.92**	**203.15**	**212.85**	**208.18**
	Applicable Rate of Interest	11.75%	13.00%	11.75%	11.75%	14.75%	11.75%
	Interest on Working Capital	**23.90**	**24.47**	**24.31**	**23.87**	**31.40**	**24.46**

Non-Tariff Income (NTI)

3.142 CSPGCL has projected the non-tariff income for FY 2011-12 & FY 2012-13 by escalating the actual NTI for FY 2010-11 by 5.72% p.a. as approved by Commission in the MYT Order.

Commission's View

3.143 The Commission accepts the methodology submitted by the petitioner and approves the non-tariff income by escalating the actual income for FY 2010-11 by 5.72% p.a. for FY 2011-12 & FY 2012-13. Following table summarises station-wise non-tariff income for FY 2011-12 & FY 2012-13 as per the MYT Order, actual submitted by CSPGCL and approved now by Commission.

Table 51: Station-wise Non-Tariff Income (Rs Crs) for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
1	HTPS Korba West	7.4	4.9	4.9	12.9	5.2	5.2
2	KTPS Korba East	3.9	4.9	4.9	6.8	5.2	5.2
3	DSPM Korba East (Extn)	4.4	3.0	3.0	7.7	3.2	3.2
	Total-Thermal	**15.7**	**12.8**	**12.8**	**27.4**	**13.6**	**13.6**

Summary of Annual Revenue Requirement for Thermal stations

3.144 Based on analysis of revised operational & financial performance during FY 2011-12 and projections for FY 2012-13, the summary of ARR for thermal stations has been presented in following tables.

Table 52: ARR (Rs Crs) for FY 2011-12 & FY 2012-13 for HTPS Korba West

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this order	Approved in MYT Order	Submitted in the Petition	Approved in this order
1.	**Annual Fixed Cost**						
1.1	Depreciation	96	91	82	7	51	39
1.2	Interest on Loan & Finance charges	25	23	22	25	27	26
1.3	Return on Equity	67	64	63	71	74	71
1.4	Interest on Working Capital	30	34	32	29	40	32
1.5	O&M Expenses	217	220	220	230	234	233
1.6	Secondary fuel oil cost	21	27	27	21	27	27
1.7	Contribution to Pension Fund	24	24	24	24	24	24
1.8	Less: Non Tariff Income	7	5	5	13	5	5
	Total Annual Fixed Cost	**473**	**478**	**465**	**393**	**472**	**447**
2.	Estimated Fuel cost	391	419	440	390	448	444
3.	**Aggregate Revenue Requirement (ARR)**	**864**	**897**	**906**	**783**	**919**	**890**

Table 53: ARR (Rs Crs) for FY 2011-12 & FY 2012-13 for KTPS Korba East

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this order	Approved in MYT Order	Submitted in the Petition	Approved in this order
1.	**Annual Fixed Cost**						
1.1	Depreciation	33	31	30	33	35	34
1.2	Interest on Loan & Finance charges	13	11	10	11	14	12
1.3	Return on Equity	40	38	37	41	43	41
1.4	Interest on Working Capital	20	23	20	20	28	20
1.5	O&M Expenses	156	194	156	164	206	165
1.6	Secondary fuel oil cost	22	27	28	20	25	26
1.7	Contribution to Pension Fund	12	12	12	12	12	12
1.8	Less: Non Tariff Income	4	5	5	7	5	5
	Total Annual Fixed Cost	**291**	**332**	**288**	**295**	**359**	**306**
2.	Estimated Fuel cost	241	247	246	239	264	247
3.	**Aggregate Revenue Requirement (ARR)**	**532**	**578**	**535**	**534**	**623**	**553**

Table 54: ARR (Rs Crs) for FY 2011-12 & FY 2012-13 for DSPM Korba East (Ext)

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this order	Approved in MYT Order	Submitted in the Petition	Approved in this order
1.	**Annual Fixed Cost**						
1.1	Depreciation	119	114	114	119	114	114
1.2	Interest on Loan & Finance charges	145	137	137	131	124	124
1.3	Return on Equity	120	115	115	120	115	115
1.4	Interest on Working Capital	24	24	24	24	31	24
1.5	O&M Expenses	109	110	110	116	117	116
1.6	Secondary fuel oil cost	13	13	16	13	16	16
1.7	Contribution to Pension Fund	0	0	0	0	0	0
1.8	Less: Non Tariff Income	4	3	3	8	3	3
	Total Annual Fixed Cost	**525**	**511**	**513**	**514**	**515**	**507**
2.	Estimated Fuel cost	261	209	275	260	274	276
3.	**Aggregate Revenue Requirement (ARR)**	**785**	**720**	**788**	**774**	**789**	**783**

Annual Revenue Requirement for Hydro & Biomass stations

3.145 As mentioned above, this Order does not undertake APR for Hydro Stations including small hydro stations and Biomass stations. The APR of performance of hydro station & SHP would be carried out at end of the MYT Control Period, a summary of ARR for such stations has been summarised in following tables.

Table 55: ARR (Rs Crs) for FY 2011-12 & FY 2012-13 for Hasdeo Bango

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this order	Approved in MYT Order	Submitted in the Petition	Approved in this order
1	Depreciation	2.4	2.4	2.4	2.4	2.6	2.4
2	Interest on Loan & Finance charges	2.9	2.9	2.9	2.7	2.9	2.7
3	Return on Equity	8.9	8.9	8.9	8.9	9.1	8.9
4	Interest on Working Capital	0.8	0.9	0.8	0.8	1.1	0.8
5	O&M Expenses	8.5	10.6	8.5	9.0	11.3	9.0
6	Contribution to Pension Fund	3.4	3.4	3.4	3.4	3.4	3.4
7	Less: Non Tariff Income	0.0	0.6	0.0	0.0	0.7	0.0
	Aggregate Revenue Requirement (ARR)	**26.9**	**28.6**	**26.9**	**27.2**	**29.5**	**27.2**

Table 56: ARR (Rs Crs) for FY 2011-12 & FY 2012-13 for Small Hydro Plants (SHP)

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in This order	Approved in MYT Order	Submitted in the Petition	Approved in This order
1	Depreciation	6.1	6.1	6.1	6.1	6.1	6.1
2	Interest on Loan & Finance charges	4.7	4.7	4.7	4.0	4.0	4.0
3	Return on Equity	4.3	4.3	4.3	4.3	4.3	4.3
4	Interest on Working Capital	0.5	0.5	0.5	0.5	0.5	0.5
5	O&M Expenses	2.7	2.7	2.7	2.8	2.8	2.8
6	Less: Non Tariff Income	0.0	0.0	0.0	0.0	0.0	0.0
	Aggregate Revenue Requirement (ARR)	**18.3**	**18.3**	**18.3**	**17.7**	**17.7**	**17.7**

3.146 In case of Kawardha cogeneration station, as no provision has been made in the CSERC MYT Regulations, 2010, the tariff approved by Commission Order dated 28 December 2011 or any such order from time to time would apply. The annual fixed cost and energy cost on the basis of approved tariff in above mentioned order and the approved fixed and variable tariff for FY 2011-12 & FY 2012-13 has been summarized below.

Table 57: ARR (Rs Crs) for FY 2011-12 & FY 2012-13 for Kawardha Co-gen Station

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in This order	Approved in MYT Order	Submitted in the Petition	Approved in This order
1.	Annual (capacity) Fixed Cost	5.70	5.70	5.84	5.51	5.51	5.75
2.	Fuel charges	8.42	8.42	8.60	8.82	8.82	11.60
	Estimated ARR	**14.12**	**14.12**	**14.43**	**14.32**	**14.32**	**17.35**
	Fixed charges (Rs/kWh) as per applicable CSERC's Orders	1.63*	-	1.67#	1.58*	-	1.65#
	Variable charges (Rs/kWh) as per applicable CSERC's Orders	2.41**	-	2.46#	2.53**	-	3.33#

Note: * Fixed cost per unit rates applicable as per CSERC's Order dt. 15.01.08 for FY 2010-11 and units approved in MYT Order; ** Variable cost per unit rates applicable as per CSERC's Order dt.15.04.10 for FY 2010-11 and units approved in MYT Order; # Fixed cost & variable cost per unit rates applicable as per CSERC's Order Dt. 28 December 2011 and units approved in MYT Order.

Summary of Annual Revenue Requirement for FY 2011-12 & FY 2012-13

3.147 Based on provisional true up of various elements of expenses and revenue for thermal stations and the ARR for hydro & biomass stations, as discussed above, the summary of ARR of CSPGCL for FY 2011-12 & FY 2012-13 as approved in MYT order, as submitted in petition and as approved now has been summarized in following table.

Table 58: ARR (Rs Crs) for Annual Performance Review for FY 2011-12 & FY 2012-13

No.	Name of Plant	FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in This order	Approved in MYT Order	Submitted in the Petition	Approved in This order
1.	**Annual Fixed Cost**						
1.1	Depreciation	256.46	244.37	234.55	167.67	208.89	195.48
1.2	Interest on Loan & Finance charges	190.26	178.54	177.01	173.90	172.20	169.22
1.3	Return on Equity	239.75	230.43	228.43	244.55	245.18	241.17
1.4	Interest on Working Capital	74.98	83.54	77.43	74.07	101.67	78.39
1.5	O&M Expenses	493.47*	537.73*	496.69	521.71*	570.97*	525.12
1.6	Secondary fuel oil cost	54.96	67.48	71.80	53.36	68.44	69.69
1.7	Contribution to Pension Fund	39.28	39.28	39.28	39.28	39.28	39.28
1.8	Less: Non Tariff Income	15.58	13.46	12.86	27.37	14.23	13.59
	Total Annual Fixed Cost #	**1339.28**	**1373.60**	**1318.17**	**1252.68**	**1397.91**	**1310.51**
2.	Fuel cost #	901.12	882.96	970.06	897.91	994.96	978.56
3.	**Aggregate Revenue Requirement (ARR)**	**2240.40**	**2256.57**	**2288.23**	**2150.60**	**2392.86**	**2289.07**

Note: *O&M cost approved in MYT Order & estimated O&M cost submitted now by CSPGCL includes cost of water tax for thermal stations; while the values approved now are excluding water taxes which are now considered separately as Statutory Charges; # Annual Fixed cost & Fuel cost includes estimated cost for Kawardha station based on applicable tariffs for fixed & variable charges & units approved in MYT Order.

Statutory Charges

3.148 CSPGCL prayed to the Commission that other than the recovery of approved AFC & ECR, CSPGCL is also allowed to recover statutory charges such as Electricity Duty (ED) and cess on auxiliary power consumption, additional ED on sale (sent out energy) and water charges for hydro & thermal plants as per actual prevailing rates.

Commission's View

3.149 The Commission accepts the contentions made by CSPGCL in this regard and also allows for recovery of water taxes on thermal stations to be pass-through as it is a state levy. Based on the prevailing rates of these charges and projected auxiliary consumption and sent out generation from all stations, the Commission has estimated the total liability for statutory charges for FY 2011-12 & FY 2012-13 as summarised in following table.

Table 59: Statutory charges (Rs Crs) for FY 2011-12 & FY 2012-13 as approved by Commission

Particulars	FY 2011-12	FY 2012-13
Electricity Duty on Auxiliary Consumption	30.76	30.66
Cess on Auxiliary Consumption	12.02	11.98
Additional ED on Sent out energy	23.97	23.93
Water Charges for Hydro Stations	21.14	21.81
Water Tax for Thermal Stations *(KTPS & HTPS)*	26.59	30.58
Total	**114.48**	**118.96**

3.150 The Statutory charges are allowed to be recovered by CSPGCL directly from the distribution utility other than ARR and should be billed separately.

SLDC Charges

3.151 In addition to above, SLDC charges are also levied on CSPGCL which are pass-through in ARR and have to be approved by the Commission.

Commission's View

3.152 Accordingly the Commission has approved the SLDC charges for FY 2011-12 & FY 2012-13 in line with SLDC Regulations 2010 which are allowed to be recover as per actual. The following table summarises the SLDC charges for FY 2011-12 & FY 2012-13 as approved by the Commission.

Table 60: SLDC charges (Rs Crs) for FY 2011-12 & FY 2012-13 as approved by Commission

Particulars	FY 2011-12	FY 2012-13
System Operation Charges (SOC) for CSPGCL	4.69	5.96
Market Operation Charges (MOC) for CSPGCL	1.57	1.99
Total SLDC Charges	**6.26**	**7.95**

Revenue Surplus/Deficit for FY 2011-12 & FY 2012-13

3.153 Based on the provisional true up for FY 2010-11 & annual performance review for FY 2011-12 & FY 2012-13, the Commission has estimated the net revenue surplus/ deficit for CSPGCL during the current financial year. It should be noted that the biomass plants in whole of Chhattisgarh state are governed by generic tariff based on applicable CSERC's Orders and as such they are not part of tariff setting process by the Commission separately. Accordingly, the Commission has not considered estimated ARR for Kawardha station & actual recovery made from this plant during FY 2011-12 for calculation of revenue surplus/deficit for FY 2011-12 & FY 2012-13.

3.154 The following table summarizes the revenue surplus/deficit for CSPGCL for FY 2011-12 & FY 2012-13.

Table 61: Revenue Surplus/ Deficit for FY 2011-12 & FY 2012-13 (Rs Cr) as approved now by Commission

S No.	Particulars	UoM	FY 2011-12	FY 2012-13
1	Approved ARR (incl. Statutory & SLDC charges)	*Rs. Crores*	2395*	2399*
2	Scheduled Generation	*MU*	11716	11930
3	**Average Tariff**	***Rs/kWh***	**1.88**	**2.01**
4	Recovery as per existing Tariff rate	*Rs. Crores*	2205	
5	Add: Surplus/(Deficit) c.f. from FY 2010-11	*Rs. Crores*	(16)	
6	**Total recovery made during the year**	***Rs. Crores***	**2189**	
7	**Surplus/(Deficit) to be c/f to next FY**	***Rs. Crores***	**(206)**	

Note: * Excluding estimated ARR for Kawardha station amounting to Rs.14.4 Crs & Rs.17.4 Crs for FY 2011-12 & FY 2012-13, respectively.

3.155 Thus the net revenue deficit for FY 2011-12, after adjusting deficit for FY 2010-11, is Rs.206 Crores. However, as the revenue deficit is on account of provisional true up & APR, i.e. the data is not based on audited/ actual figures, the Commission does not deem fit to burden the consumers by a likely deficit, which may change on the basis of true up for FY 2010-11 & FY 2011-12 on basis of audited / provisional accounts. Thus the Commission notes the revenue deficit & would make adjustment for same in the next order along with final true up for FY 2010-11.

Sale of Infirm Power during FY 2012-13

3.156 During FY 2012-13, it is expected that CSPGCL's new thermal stations namely Korba West (Extn.) and Marwa (Unit I & II) will be synchronized/ commissioned. The Commission verified with CSPGCL and asked them to submit the estimated date of synchronization and COD of these stations. The expected date of commissioning provided by CSPGCL is given in the table below.

Table 62: Date of Synchronisation/ COD for CSPGCL's New Thermal Stations

Name of Plant	Date of Synchronization	Date of COD
Korba West (Extn)	Sep-2012	Nov-2012
Marwa Unit I	Nov-2012	Jan-2013
Marwa Unit II	Jan-2013	Mar-2013

3.157 As there are no norms specified by Central Commission for making estimates of infirm generation i.e. generation after synchronization but before COD of thermal plants, the Commission has considered a PLF of 25% for these stations after synchronization and before COD of the stations subject to truing up based on actual generation done during that period. Further as the Commission has not estimated norms for the new thermal generating stations after COD but before stabilizing, the Commission has considered an average PLF of 60% after commissioning of the stations till stablistaion for the estimation purpose.

3.158 Further any infirm power sold by CSPGCL to CSPDCL or any other beneficiary, such infirm power would be billed provisionally @ Rs. 1.00/unit for power generated by these stations after synchronization and before the date of commercial operation of the station, and at the provisional rate of Rs 2.40/unit for power generated by these stations after the COD.

Billing Mechanism for FY 2012-13

3.159 Up till FY 2010-11, CSPGCL power was billed at uniform single-part tariff for the company as a whole. The Commission noted that in the existing mechanism, there was no differentiation made on the basis of difference in performance & costs for each station of the generating company. Thus, in the *MYT Order for ARR for FY 2010-11 to FY 2012-13 & Tariff Determination for FY 2011-12*, the Commission directed CSPGCL to undertake station-wise billing as per the provisions of the CSERC's MYT Regulations, 2010.

3.160 Even though the MYT regulations ultimately envisage three part billing based on *Intra State ABT Mechanism*, keeping in mind the constraints in technology and lack of readiness on part of the utilities, the Commission consciously decided to introduce the above mechanism in stages. In the first stage it envisaged station-wise billing through single-part tariff. This was introduced in FY 2011-12, wherein the Commission allowed station-wise recovery of charges based on estimated ARR and the normative sent out energy for the station.

3.161 Now the Commission has decided to move to second stage, wherein it allows for recovery of ARR through station-wise two part tariffs. For FY 2012-13, the Commission has decided that recovery of fixed cost shall be through station-wise capacity charges (*in Rupees*) in accordance with the formulae specified in *Clause 28.2(a)* of the CSERC's MYT Regulations 2010; while recovery of energy charges shall be through a station-wise energy charge rate (*in Rs/kWh*) in accordance with the formulae specified in *Clause 28.5* of the CSERC's MYT Regulations 2010. The capacity charge shall be inclusive of incentive (if any) on account of variation in normative PLF of the power plants. Further in case of thermal stations, it should be noted that the *Fuel Cost Adjustment (FCA)*, which is mandatory to be introduced as per APTEL order in suo motu petition no OP-01 of 2011 shall be embedded feature of the energy charge rate.

3.162 In view of the above, the billing for CSPGCL thermal plants for FY 2012-13 shall be as under:-

Thermal Stations

<u>*Annual Capacity Charge Rate (ACR)*</u>

(a) Generating Stations in Commercial Operation * for less than 10 years (i.e. DSPM & KTPS) = AFC x (NDM / NDY) x (0.5 + 0.5 x PAFM / NAPAF)

** Provided that in case at the end of the year PAFY is worked out to be less than 70% of the total capacity charge (in Rupees) for the year; then ACR shall be restricted to = AFC x (0.5 + 35 / NAPAF) x (PAFY / 70)*

(b) Generating Stations in Commercial Operation for 10 years or more (i.e. HTPS) = AFC x (NDM / NDY) x (PAFM / NAPAF

Where,

AFC	=	Annual fixed cost specified for the year, in Rupees.
NDM	=	Number of days in the month
NDY	=	Number of days in the year
PAFM	=	(Sent out units during the month / Sent out units for the month at 100% PLF & Normative Aux. Consumption) X 100
NAPAF	=	(Normative Sent out units / Sent out units at 100% PLF & Normative Aux. Consumption) X 100
PAFY	=	(Sent out units during the financial year / Sent out units for the year at 100% PLF & Normative Aux. Consumption) X100

3.163 In case of backing down on the instructions of SLDC the quantum of backing down as certified by SLDC shall be treated as deemed generation only for the purpose of recovery of AFC. Thus in such exceptional condition, only for the purpose of recovery of AFC sent out units shall be taken as actual sent out units plus the generation lost due to backing down.

3.164 The moderation in formula for NAPAF is made to adjust for two part billing instead of three part billing and is in line with the MYT order of March 2011. The station-wise parameters identified to estimate the ACR for each thermal station has been summarized in following table.

Table 63: Parameters for Computation ACR for FY 2012-13

No.	Particulars	*UoM*	HTPS Korba West	KTPS Korba East	DSPM Korba East (Ext.)
1	Installed Capacity	MW	840	440	500
2	Annual Fixed Cost (AFC)	Rupees	4,466,646,976	3,061,342,426	5,070,175,046
3	Normative annual Plant Load Factor and/or NAPAF	%	82.00	78.50	85.00
4	Normative Auxiliary Consumption	%	9.00	10.30	9.00
5	Normative sent out units	MU	5491	2714	3388
6	Sent out units @ 100% PLF & normative auxiliary consumption	MU	6696	3457	3986

Energy Charge Rate (ECR)

ECR = {(GHR – SFC x CVSF) x LPPF / CVPF} x 100 / (100 – AUX)

Where,

AUX = Normative Auxiliary energy consumption in %

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 = W.Avg. Landed price of primary fuel, in Rs/kg, per litre or per scm, as applicable, during the month.

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

3.165 The ECR applicable for the three thermal stations for FY 2012-13 has been summarized in following table.

Table 64: Parameters for Computation ECR

No.	Particulars	*UoM*	HTPS Korba West	KTPS Korba East	DSPM Korba East (Ext.)
1	GHR	*kCal/kWh*	2650	2925	2500
2	SFC	*ml/kWh*	1.00	2.00	1.00
3	CVSF	*kCal/ml*	10.00	10.00	10.00
4	CVPF	*kCal/kg*	3439	3323	3432
5	LPPF	*Rs/MT*	958.13	933.03	1023.11
6	Aux	*%*	9.00	10.30	9.00
7	**ECR**	***Rs/kWh***	**0.808**	**0.909**	**0.816**

3.166 The methodology for incorporation of change in ECR due to change in LPPF, CV etc shall be issued separately by the Commission along with the VCA methodology. Till such time above rates shall prevail.

Hydro & Biomass Stations

3.167 In case of hydro stations including small hydro plants, the Commission has considered to continue billing at single-part tariff for FY 2012-13. As there has been no true up for Hasdeo Bango, the ARR for FY 2012-13 remains the same as approved in MYT Order i.e. Rs.27.2 Crs. Based on the normative net generation of 271 MU at design energy, the single part tariff applicable for Hasdeo Bango for FY 2012-13 works out to be Rs.1.003/ kWh.

3.168 In case of small hydro plants, the Commission has decided to continue with the tariff applied for FY 2011-12 in the MYT Order for FY 2012-13 also. Following table summarizes the applicable single-part tariff for hydro stations.

Table 65: Station-wise Tariff (Rs/kwh) applicable for Hydro stations for FY 2012-13

No.	Name of Plant	Applicable Tariff
1	Hasdeo Bango	1.003
2	Gangrel SHP	2.506
3	Sikasar SHP	3.121
4	Micro KWB	3.184

3.169 Finally, in case of Kawardha Cogeneration plant, billing shall be as per Generic Tariff prevailing from time to time. Following table summarizes the applicable tariff for Biomass station for FY 2012-13.

Table 66: Station-wise Tariff (Rs/kwh) applicable for Biomass for FY 2012-13

No.	Name of Plant	Fixed Rate	Energy Charge
	Kawardha Biomass plant	1.65	3.33

Note: Applicable generic tariff is as per prevailing CSERC Order for biomass plants.

4 CHHATTISGARH STATE POWER TRANSMISSION COMPANY LTD – PETITION NO. 05/2012 (T)

About CSPTCL

4.1 The Government of Chhattisgarh (GoCG) vide notification No. 1-8/2008/13/1 dated December 19, 2008 issued the Chhattisgarh State Electricity Board (CSEB) Transfer Scheme Rules, 2008 with effect from January 1, 2009. As per the rules, the erstwhile CSEB has been unbundled into five independent companies, viz. Holding company, Generation Company, Transmission Company, Distribution Company and Trading Company. Chhattisgarh Power Transmission Company Limited (CSPTCL) is the State Power Transmission Company and is responsible for transmission of power within the state.

4.2 The major functions of CSPTCL are to:

i) Ensure reliable transmission of energy to CSPDCL which in turn supplies power to the end consumers across the state

ii) Development of transmission network to meet the growing needs of long term open access customers across the state

iii) Facilitate medium term and short term open access depending upon the margins available in existing transmission system

4.3 The opening balance sheet for CSPTCL as on January 1, 2009, as per the revised transfer scheme has been summarised below.

Table 67: Balance sheet for CSPTCL (Rs Cr) as on January 1, 2009

Particulars		Amount
Assets		
Gross Block	A	**892.82**
Less : Accumulated Depreciation	B	**236.41**
Net Fixed Assets	C = A-B	**656.41**
CWIP	D	**373.04**
Assets not in use		
Deferred Cost		
Intangible Assets		
Investment	E	**14.31**
Investment in Subsidiary Company		
Net Current Assets		
Stock	F	**8.54**
Receivable against supply of power		
Cash & Bank	G	**0.19**
Inter Company Receivable/Payable	H	**(10.56)**
Loans &Advances	I	**128.54**
Sundry Receivable	J	**1.28**
Total Current Assets	K = F+G+H+ I+J	**127.99**
Less :		
Total Current Liabilities		
Security Deposits Consumers		

Particulars		Amount
Other Current Liabilities	L	**173.59**
Total Current Liabilities	M=L	**173.59**
Net Current Assets	N = K-M	**(45.60)**
Subsidy Receivable from Government	O	**41.54**
NET ASSETS	P = C + D +F + N + O	**1,039.69**
Liabilities		
Borrowings of Working Capital		
Payments due on Capital Liabilities	A	**56.34**
Capital Liabilities	B	**235.80**
Funds from State Government		
(A) Loan		
(B) Equity Capital		
Total funds from State Govt.	C	**92.44**
Contributions, Grants and Subsidies towards Cost of Capital Assets		
Reserves and Reserve Funds	D	**29.60**
Surplus (+ Equity Adjustment)	E	**625.51**
Sub Total Shareholder's Equity	F = D + E	***655.11***
NET LIABILITIES	**G = A+B+C+F**	**1,039.69**

Transmission Network

4.4 In line with the growth in generation capacity and distribution network, the transmission network also needs to be augmented to maintain the system availability & stability, voltage profile and to reduce loss levels. The transmission network as on 31.03.2010 and 31.03.2011 of the CSPTCL as submitted by the petitioner is given in Table 68 and Table 69:

Table 68: Transmission Network

Voltage (KV)	Unit	FY 2009-10	FY 2010-11	Growth
400	Ckt kms.	277	277	0%
220	Ckt kms.	2,934	2,934	0%
132	Ckt kms.	4,226	4,309	2%
Total		7,437	7,520	

Table 69: Growth of Transmission Assets- Sub-stations

Voltage (KV)	Unit	FY 2009-10	FY 2010-11	Growth (%)
400 Kv	No. of bays	11	11	0%
220 Kv	No. of bays	110	119	8.2%
132 Kv	No. of bays	387	412	6.5%
33 kV	No. of bays	646	686	6.2%
11 kV	No. of bays	53	53	0%
Total		1,207	1,281	

MYT Filing and Technical Validation

4.5 CSPTCL filed the Petition for provisional true up of FY 2010-11 , APR For FY 2011-12 and revision of ARR for FY 2011-12 and FY 2012-13 on November 30, 2011. On the preliminary scrutiny of the petition, several discrepancies were observed and additional information requirement were identified by the Commission and communicated to CSPTCL.

4.6 Technical Validation Sessions (TVS) was held on January 31, 2012, and which was attended by the staff of the Commission, officers of CSPTCL, and consultants of the Commission. During the discussions, CSPTCL was advised to furnish additional data, which were considered material for examination of the petition, as mentioned below:

i) Resubmit Form 11A with detailed calculations of depreciation pertaining to assets of CSPTCL (after excluding SLDC assets).

ii) Submit detailed break-up of employee expenses, administration and general expenses and repairs and maintenance expenses for FY 2010-11 and FY 2011-12 till date and estimate for remaining FY 2011-12

iii) Provide proof of assets capitalised in FY 2010-11 and FY 2011-12 till date with details of target completion date and actual completion date and expenses incurred.

iv) Provide details of spill-over works of FY 2010-11 to be completed in FY 2011-12 and FY 2012-13.

v) Provide details of contribution made to pension fund in FY 2010-11. Also, CSPTCL needs to confirm whether the pension fund includes contribution towards employees of SLDC as well or not.

vi) Provide details with regard to the O&M expenses deferred by CSPTCL during FY 2011-12 due to lower tariff realization from CSPDCL.

vii) Re-submit line length of its transmission network as there have been certain discrepancies in the line length submitted by CSPTCL in its petition.

Brief note on Public Hearing

4.7 CSPTCL issued public notice in the leading newspapers of the State inviting suggestions/comments/objections from the public on its Petition for provisional true up of FY 2010-11 and revision of ARR for FY 2011-12 and FY 2012-13 on November 30, 2011. The Commission held the common public hearings for petitions filed by all three successor companies during the period February 22nd -3rd March, 2012 in Jagdalpur, Ambikapur, Bilaspur and Raipur. All the suggestions / comments / objections made by the public in writing or during the hearing have been summarized and presented in Section 2 of this order.

Truing up for period prior to Control Period

4.8 The Commission has carried out the final truing up for FY 2005-06 and FY 2006-07, ARR for FY 2008-09 based on provisional accounts for the erstwhile CSEB and provisional true up for FY 2009-10 for the successor companies in the MYT Order dated March 31, 2011. The revenue surplus/deficit on account of truing up for past years for CSEB upto 31.12.2008 has been allocated to the three successor companies.

The revenue surplus/deficit on account of truing up for FY 2009-10 for CSPTCL has also been added. The approved net revenue surplus from truing up for past years is Rs.110 Cr (as approved in the MYT Order) for CSPTCL which has been adjusted while determining ARR for future years.

Provisional Truing up for FY 2010-11

4.9 This section contains a summary of the provisional True Up Petition for the period FY 2010-11 as submitted by CSPTCL and the analysis/ observation/ of the Commission thereof.

4.10 Since the audited annual accounts of FY 2010-11 are under finalization, CSPTCL has submitted petition for provisional truing-up of the ARR for the year based on the provisional accounts of FY 2010-11.

4.11 As per the CSERC MYT Regulations, 2010, the ARR for the Petitioner will include the following components:

i) Operation and maintenance expenses;
ii) Return on equity
iii) Interest on loan capital
iv) Depreciation
v) Interest on working capital
vi) Less: Non tariff income

Operation & Maintenance expenses

4.12 The operation and maintenance (O&M) expenses shall mean the total of all expenditure under the following heads:

i) Employee expenses
ii) Administration and general expenses
iii) Repairs and maintenance expenses

4.13 CSPTCL has considered actual O&M expenses as per the provisional accounts of FY 2010-11 in its submission to the Commission. The O&M expenses submitted by the petitioner are net of capitalization. The break-up of O&M expenses as per CSPTCL's petition is mentioned in Table 70.

Table 70: O&M expenses as submitted by CSPTCL Rs. Cr)

Actual O&M expenses (FY 2010-11)	Gross O&M expenses	Net of capitalized
Employee expenses	121.07	111.08
A&G expenses	15.71	12.38
R&M expenses	24.72	24.72
Total	161.50	148.18

Commission's View

4.14 As per CSERC MYT Regulations, 2010, Clause 26(B), norms have been specified for calculating allowable O&M expenses for the transmission system. The norms are mentioned in Table 71.

Table 71: Norms for O&M expenses

Norms for sub-station (Rs Lakh per bay/ Km)	FY 2010-11	FY 2011-12	FY 2012-13
765 kV	77.56	81.99	86.68
400 kV	55.40	58.57	61.92
220 kV	38.78	41.00	43.34
132 kV	27.70	29.28	30.96
66 kV	19.39	20.50	21.67
33 kV	13.57	14.35	15.17
11 kV	9.50	10.04	10.62
Single Circuit (Bundled conductor with four or more sub-conductors)	0.568	0.600	0.635
Single Circuit (Twin & Triple Conductor)	0.378	0.400	0.423
Single Circuit (Single Conductor)	0.189	0.200	0.212
Double Circuit (Bundled conductor with four or more sub-conductors)	0.994	1.051	1.111
Double Circuit (Twin & Triple Conductor)	0.663	0.701	0.741
Double Circuit (Single Conductor)	0.284	0.301	0.318
HVDC Back-to-back stations (Rs lakh per 500m MW)	468	495	523

4.15 In its MYT order dated March 31, 2011, the Commission had approved O&M expenses for the MYT Control period based on norms specified above and expected addition in the transmission network of the licensee. In this tariff order, the Commission followed the same methodology for calculating normative O&M expenses while considering actual addition in the transmission network during FY 2010-11.

4.16 However, upon close scrutiny of the Petition, the Commission found certain discrepancies in the closing balance of the line length as submitted by CSPTCL for FY 2009-10 and FY 2010-11. The line length of few configurations was greater in FY 2009-10, than that of FY 2010-11. Upon pointing this discrepancy to the petitioner, CSPTCL re-submitted the line length data for FY 2009-10, which has been considered by the Commission for calculating normative O&M expenses for FY 2010-11. The details of transmission network considered by the Commission in its previous tariff order and this tariff order for calculating normative O&M expenses for FY 2010-11 are mentioned in Table 72.

Table 72: Transmission network considered by the Commission for FY 2010-11

Particulars (as on March 2010)	Approved in MYT order	Submitted by CSPTCL	Considered in this order
(A) Length of Transmission Lines (ckt. Kms)			
- Single Circuit (Single Conductor)			
- 400 kVA	277	277	277
- 220 kVA	102.83	124.93	124.93
- 132 kVA	1149.79	901.13	901.13
- Sub-total Single Circuit (Single Conductor)	*1529.62*	*1303.06*	*1303.06*

Particulars (as on March 2010)	Approved in MYT order	Submitted by CSPTCL	Considered in this order
- Double Circuit (Twin & Triple conductor)	0	0	0
- Double Circuit (Single Conductor)			
- 400 kVA	0	0	0
- 220 kVA	2819.96	2808.95	2808.95
- 132 kVA	3154.13	3325.29	3325.29
Sub-total Double Circuit (Single Conductor)	*5974.09*	*6134.24*	*6134.24*
Total length of transmission lines (A)	**7503.71**	**7437.30**	**7437.30**
(B) Number of bays			
- 400 KV	11	11	11
- 220 KV	107	110	110
- 132 KV	390	387	387
- 66 KV		0	0
- 33 KV	654	646	646
- 11 KV	53	53	53
Total number of bays (B)	**1215**	**1207**	**1207**

4.17 Based on the norms specified in Section 4.14 and transmission network specified in Section 4.16, the Commission has calculated the normative O&M expenses as given in Table 73.

Table 73: O&M expenses approved by the Commission (Rs. Cr)

O&M expenses in FY 2010-11	Approved in MYT order	As per norms
(A) O&M expenses of Transmission Lines as per norms		
- Single Circuit (Single Conductor)	2.89	2.46
- Double Circuit (Twin & Triple conductor)	0.00	0
- Double Circuit (Single Conductor)	16.97	17.42
Total (A)	19.86	19.88
(B) O&M expenses of bays as per norms		
- 400 KV	6.09	6.09
- 220 KV	41.49	42.66
- 132 KV	108.03	107.20
- 66 KV	0.00	0.00
- 33 KV	88.75	87.66
- 11 KV	5.04	5.04
Total (B)	249.40	248.65
(C) Share of holding company expenses	4.93	4.93
Total O&M expenses (Rs. Cr.) (A+B+C)	**274.19**	**273.46**

4.18 The Commission observed that the O&M expenses submitted by CSPTCL for FY 2010-11 are much lower than the normative O&M expenses. Upon seeking clarification, CSPTCL replied that in the absence of tariff order for FY 2010-11, tariff of FY 2009-10 continued during FY 2010-11, due to which revenue realization was lower than the ARR approved in MYT order. Therefore, O&M expenses were also limited by CSPTCL in FY 2010-11.

4.19 The Commission approved the gross O&M expenses submitted by the petitioner in this order. Further, the Commission considered that O&M expenses include annual contribution to pension fund of Rs. 20.5 Cr for employees of CSPTCL and SLDC.

4.20 Further, against the normative O&M expenses of Rs. 273.46 Cr for FY 2010-11, the actual O&M expenses of CSPTCL during FY 2010-11 were Rs. 161.50 Cr, thus there was a net gain of Rs 112.0 Cr. CSPTCL is allowed to retain one-third of this gain as per relevant provisions of CSERC MYT Regulations 2010, i.e. Rs 37.32 Cr. The rest two-thirds of the gain has been passed on to the consumers in the form of reduction in tariff.

Interest on working capital

4.21 CSPTCL has calculated working capital on normative basis as per Clause 25.4 of CSERC MYT Regulations, 2010

"*Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee or the distribution licensee has not taken loan for working capital from any outside agency.*"

4.22 For the purpose of calculating the working capital CSPTCL has considered:

i) O&M expense: 1 month's O&M expenditure
ii) Maintenance spares: 15% of O&M expenditure
iii) Receivables: 2 months of income

4.23 CSPTCL has considered Prime lending rate of State Bank of India on April 1, 2010, i.e. 11.75% as interest rate for calculating interest on working capital and has submitted Rs. 11.92 Cr as interest on working capital. The details submitted by CSPTCL are given in Table 74.

Commission's Views

4.24 The Commission has accepted the methodology and PLR rate proposed by the petitioner and has considered normative O&M expenses for calculating working capital requirements less savings in O&M expenses shared with consumers. Further, the Commission has reduced contribution to pension and gratuity from O&M expenses, i.e. Rs. 20.5 Cr for FY 2010-11 for calculating working capital requirements as contribution to pension fund and gratuity is allowed on the basis of actual contribution and no working capital is required by the petitioner for making this contribution.

4.25 Further, the Commission has reduced sharing of gains with CSPTCL from ARR to arrive at receivables for calculating working capital requirement.

Table 74: Interest on working capital (Rs. Cr)

Normative interest on working capital (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
O&M expenses	21.14	12.35	14.12
Maintenance spares	38.05	22.23	25.42
Receivables	84.05	66.84	59.94
Net working capital requirement	143.25	101.42	99.48
Normative interest on working capital @ 11.75%	**16.83**	**11.92**	**11.69**

4.26 It can be seen from above that CSPTCL in its petition has claimed Rs. 12.35 Cr as working capital requirement on account of O&M expenses and Rs. 22.35 Cr on account of maintenance spares, against which the Commission has approved Rs. 14.12 Cr and Rs. 25.42 Cr respectively. This is because the Commission has calculated working capital requirements on the basis of normative O&M expenses reduced by savings in O&M expenses to be shared with consumers. Whereas, CSPTCL has calculated working capital requirements on the basis of actual O&M expenses.

Capitalization

4.27 The petitioner has submitted Rs. 534.30 Cr as additional capitalization during FY 2010-11.

Commission's views

4.28 The Commission has observed that the additional capitalization submitted by the petitioner is more than the capitalization approved by the Commission in MYT order for FY 2011-12. Upon clarification, CSPTCL responded that there has been a change in their accounting policy of recognizing addition in Gross fixed assets and hence, capitalization in FY 2010-11 is more than the approved amount in the MYT Order of FY 2011-12. CSPTCL now recognizes addition in fixed assets on the basis of "put to use" principle, whereas, earlier assets were recognized when the complete payment was made to the vendors with regard to the capital expenditure. CSPTCL prayed before the Commission to accept the proposed capitalization.

4.29 The Commission has accepted CSPTCL's reason for higher capitalization, and, against the approved figure of Rs. 442.30 Cr in MYT Order for FY 2011-12, has calculated additional capitalization as difference between closing GFA of FY 2010-11 and FY 2009-10 of transmission assets, i.e. Rs. 529.05 Cr against the capitalization of Rs. 534.30 Cr submitted by the Petitioner. The difference between CSPTCL's submission and Commission's approved figure is because CSPTCL has inadvertently included capitalization of SLDC assets in its submission. The Commission has rectified the same error in it calculations.

Depreciation

4.30 The petitioner has computed depreciation on total assets as per the schedule of rates specified in the CSERC MYT Regulations, 2010. CSPTCL has submitted Rs. 86.07 Cr as depreciation for FY 2010-11 and 5.83% as weighted average rate of depreciation.

Commission's View

4.31 The Commission observed that the petitioner considered addition in SLDC assets as part of additional capitalization for CSPTCL. Upon pointing out this discrepancy during the TVS, CSPTCL submitted revised asset-wise depreciation schedule consisting of only transmission assets, which has been accepted by the Commission.

4.32 The Commission has computed depreciation in accordance with CSERC MYT Regulations, 2010 and has approved Rs. 69.39 Cr as depreciation in FY 2010-11 and 5.22% as weighted average rate of depreciation as given in Table 75.

4.33 CSPTCL's actual capitalization during FY 2010-11 is more than the approved capitalization in MYT order due to the change in their accounting policy, as described in Section 4.28. As a result, depreciation approved in this order is more than that of MYT order.

Table 75: Depreciation (Rs. Cr)

Depreciation (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
Opening GFA	1208.26	1208.26	1208.26
Additional capitalization during the FY	442.33	534.30	529.05
GFA at the end of the year	1650.58	1742.56	1737.32
Rate of depreciation	5.22%	5.83%	5.22%
Amount of depreciation	**67.14**	**86.07**	**69.39**

Interest on loan

4.34 The petitioner has submitted that the interest on term loans is computed on the normative loan as per Clause 23 of CSERC MYT Regulations, 2010. CSPTCL has submitted Rs. 103.40 Cr as interest on normative loan and rate of interest as 11.22%. The normative loan and interest calculations as submitted by CSPTCL for FY 2010-11 are given in Table 76.

Commission's View

4.35 The Commission observed that the petitioner has taken addition in normative loan as 64% of submitted capitalization and addition in equity as 27% of submitted capitalization, which adds up to only 91% of capitalization. Upon pointing out this discrepancy, CSPTCL submitted that addition in loan should be taken as Rs. 383.90 Cr, which amounts to 71% of submitted capitalization, which was still not adding up to 100% of submitted capitalization. It should be noted that in MYT order, the petitioner had proposed 80:20 as debt:equity ratio, and the Commission had accepted it as per Clause 19.1 of CSERC MYT Regulations, 2010-*"where equity capital actually deployed is equal to or less than 30% of capital cost, the actual equity shall be considered for determination of tariff."*

4.36 Thus, the Commission has considered that 27% of capitalization is funded by equity and has considered 73:27 as debt: equity ratio for FY 2010-11. The weighted average rate of interest has been considered as 11.22%, as approved in MYT order.

4.37 The Commission has also observed that CSPTCL has made a mistake in considering opening gross normative loan. The same has been rectified by the Commission in this order.

4.38 Considering the above, the interest on normative loan as approved by the Commission for FY 2010-11 is given in Table 76.

Table 76: Interest on normative loan (Rs. Cr)

	Interest on normative loan (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
A	Gross normative loan- opening	855.64	872.4	855.64
B	Cumulative repayment of normative loan upto previous year	78.86	78.86	78.86
C	Net normative loan- opening (A-B)	776.78	793.49	776.78
D	Increase in normative loan due to additional capex during the year	353.87	342.23	384.25
E	Repayments of normative loan during the year	67.14	86.07	69.39
F	Net normative loan – closing (C+D-E)	1063.50	1049.65	1091.64
G	Average normative loan ((C+F)/2)	920.14	921.57	934.21
H	Weighted average rate of interest on actual loans	11.22%	11.22%	11.22%
I	**Interest on normative loan** (G*H)	**103.21**	**103.40**	**104.79**

Return on Equity

4.39 As mentioned in Section 4.36, the petitioner has assumed that additional capitalization is funded by equity to the extent of 27%. The rate of return on equity has been computed by grossing up the base rate with the MAT rate as per Clause 22.3 of CSERC MYT Regulations, 2010.

Commission's views

4.40 The Commission has considered opening balance of normative equity as Rs. 352.62 Cr as discussed in MYT order. Further addition in equity has been considered at 27% of additional capitalization. Further, the Commission has rectified the MAT rate considered applicable in FY 2010-11 for grossing up rate of return on equity in this order. The return on equity approved by the Commission in given in Table 77.

Table 77: Return on equity (Rs. Cr)

	Return on Equity (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
A	GFA as on April 1, 2010	1208.26	1208.26	1208.26
B	Normative equity capital for assets till April 1, 2010	352.62	352.62	352.62
C	Additions to GFA after April 1, 2010	442.33	534.30	529.05
D	Addition in normative equity during the year (27%*C)	88.47	144.69	144.80
E	Closing equity balance	441.09	497.31	497.42
F	Notional equity for computation of RoE (B+D/2)	396.85	424.97	425.02
G	Return on equity (pre-tax %)	19.358%	19.358%	18.674%
H	**Return on Equity (F*G)**	**76.82**	**82.27**	**79.37**

Other expenses capitalised

4.41 CSPTCL has submitted Rs. 26.46 Cr, which is interest during construction (IDC) as other expenses capitalized in its petition.

Commission's View

4.42 The Commission believes that there is no need to consider IDC as expenses capitalized, as interest calculations are based on capitalized assets and IDC is not part of allowed interest on loan.

4.43 However, the Commission has considered O&M expenses capitalized as part of other capitalized expenses. Since, the Commission has approved gross O&M expenses in Section 4.19, the Commission has reduced O&M expenses capitalized on actual basis, i.e. Rs. 13.32 Cr from the total expenditure to arrive at annual revenue requirement.

Non tariff income

4.44 Non-tariff income comprises mainly of income from all sources viz., interest on fixed deposits, delayed payment charges, miscellaneous receipts, income from trading other than electricity.

4.45 CSPTCL has submitted Rs. 9.50 Cr as other income for FY 2010-11. The detailed break-up of other income submitted by CSPTCL in its petition is given in Table 78.

Commission's View

4.46 The Commission has verified petition's submission with provisional accounts of FY 2010-11 and has accepted it. In addition, the Commission has considered Rs. 44.26 Cr received by CSPTCL on account of open access charges from short term open access customers as income for CSPTCL for FY 2010-11. According to the CSERC (Connectivity and Intra-state Open Access) Regulations, 2011, the short term open access charges recovered from short-term open access customers have to be disbursed to the long term and medium term open access customers from FY 2011-12 onwards. Thus, going forward these charges will not be considered in the non-tariff income of CSPTCL.

Table 78: Non-tariff income (Rs. Cr)

Non-tariff income (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
(A) Income from investment, fixed and call deposits			
- Interest income from investments	1.31	0.00	**0.00**
- Interest on fixed deposits	0.00	2.79	**2.79**
- Interest from banks other than fixed deposits	0.002	0.00	**0.00**
- Interest on any other items	0.00	0.00	**0.00**
Sub-total (A)	**1.32**	**2.79**	**2.79**
(B) Other non-tariff income			
- Interest on loans and advances of staff	0.19	0.09	**0.09**
- Interest on loans and advances to licensee	0.00	0.00	**0.00**
- Interest on loans and advances to lessors	0.00	0.00	**0.00**
- Interest on advances to suppliers / contractors	1.00	0.24	**0.24**
- Income from trading (other than electricity)	4.35	0.00	**0.00**
- Gain on sale of fixed assets	0.00	0.00	**0.00**
- Income/fee/collection against staff welfare activities	0.01	0.00	**0.00**
- Miscellaneous receipts	5.46	6.38	**6.38**
- Delayed payment charges from beneficiary	0.00	0.00	**0.00**

Non-tariff income (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
- Misc. charges from beneficiary	0.00	0.00	**0.00**
Sub-total (B)	**11.01**	**6.71**	**6.71**
Total (A+B)	**12.33**	**9.50**	**9.50**
Short term open access charges	**-**		**44.26**

Transmission losses and incentives

4.47 CSPTCL has submitted intra-state transmission loss of 4.41% for FY 2010-11 against the approved intra-state transmission loss of 4.67%.

Commission's View

4.48 The Commission verified the calculation of transmission loss as submitted by CSPTCL and discovered a discrepancy between the quantum of EHV sales reported by CSPTCL and CSPDCL in their respective petitions. CSPDCL reported higher EHV sales at 1953 MU as compared with CSPTCL which reported EHV sale at 1925 MU in its petition. CSPTCL has also considered net energy input from CSPGCL at the 132kV level as 12,833 MU against the energy input of 12,716 MU at 132 KV level submitted by CSPGCL in its petition.

4.49 The Commission considered the EHV sales at 1953 MU, as reported by CSPDCL, for calculation of intra-state transmission loss as CSPDCL is responsible for metering and sales at the EHV level. It has also considered net energy input at 132kV as per the submission made by CSPGCL. Accordingly, the intra-state transmission loss has been recalculated and approved by the Commission as 4.18% for FY 2010-11, which is lower than the loss level reported by CSPTCL and lower than the level of intra-state transmission loss approved by the Commission in its previous tariff order for FY 2011-12.

Table 79: Submitted and Approved Transmission Loss for FY 2010-11 (MU)

	Submitted	Approved in this order
TOTAL ENERGY INJECTED INTO THE TRANSMISSION SYSTEM	**17513**	**17423**
ENERGY OUTPUT FROM THE TRANSMISSION SYSTEM		
Consumption(Sales) at EHV levels by consumers on 132 KV and above	1925	1953
Energy delivered to DISCOM on 33 KV side of power transformer adjusting 74 MU for bus loss and auxiliary consumption in CSPTCL's sub-stations @ 0.5% of input energy i.e. 14816	14816	14742
Net Energy delivered	**16740**	**16695**
Energy Loss	773	728
Transmission Loss (%)	**4.41%**	**4.18%**

4.50 As per Clause 5.6 of CSERC MYT Regulations, 2010, the Commission gives incentives to the utilities for demonstrating better performance with regards to efficiency linked controllable items. Therefore, the Commission has approved an incentive of Rs. 5.15 Cr to CSPTCL for reducing transmission losses from 4.67% approved in MYT order to 4.18% approved in this order for FY 2010-11. The units saved have been multiplied with power purchase rate of Rs. 1.72/kWh, which is the average power purchase cost of CSPDCL during FY 2010-11 (as derived in Section 6 of this order) to arrive at total gain on account of reduction in transmission losses. CSPTCL is allowed to retain one-third of this gain as per relevant provisions of CSERC MYT Regulations 2010. The details of such gain on account of reduction in transmission losses are given in Table 80**Error! Reference source not found.**.

Table 80: Gain on account of transmission loss

	Gain shared with CSPTCL	FY 2010-11
A	Energy Input Required to meet consumption of discom (actual) (MU)	17423
B	Transmission Losses (actual) (MU)	728
C	Energy Input Required to meet consumption of discom (@ normative loss level) (MU)	17513
D	Transmission Losses (normative) (MU)	818
E	Energy Saved (MU) (C-A)	90
F	Power Purchase Rate (Rs/kWh)	1.72
G	Gain on account of Reduction in Transmission Losses (Rs Cr) (E*F /10)	15.44
H	Gain shared with the licensee (Rs Cr) (G/3)	**5.15**

4.51 As approved in MYT order, the Commission has approved 4.57% and 4.55% as transmission loss for FY 2011-12 and FY 2012-13 in this order.

Annual Revenue Requirement for FY 2010-11

4.52 Based on various components of expenses and return discussed above, the summary of provisional true-up of CSPTCL for FY 2010-11 is given in Table 81.

Table 81: Annual Revenue Requirement of CSPTCL for FY 2010-11 (Rs. Cr)

	Particulars (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
A	O&M Expenses	274.19	148.18	161.50
B	Depreciation	67.14	86.07	69.39
C	Interest on loan	103.21	103.40	104.79
D	Interest on working capital	16.83	11.92	11.69
E	Less: Other expenses capitalized	(21.54)	(26.46)	(13.32)
F	**Total expenditure** (A+B+C+D-E)	**439.82**	**323.11**	**334.05**
G	Add: Reasonable return	76.82	82.26	79.37
H	Less: Non-tariff income	(12.33)	(9.5)	(9.5)
I	Less: Income from STOA customers			(44.26)
J	Add: sharing of benefit of decrease in O&M expenses			41.76
K	Add: Incentive for reduction in transmission loss			5.15
L	Aggregate revenue requirement (F+G-H-I+J+K)			**406.56**
M	Recovery during the year			238.50
N	Surplus/(Deficit) during the year (M-L)			(168.06)
O	Surplus/(deficit) carried forward from previous year			110.34
P	Surplus carried forward to next year (N+O)			(57.72)

Annual Performance Review for FY 2011-12 and Annual Revenue Requirement for FY 2012-13

4.53 This section contains a summary of the Petition for the period FY 2011-12 and FY 2012-13 and analysis of the Commission thereof.

Capitalization

4.54 CSPTCL in its petition has submitted Rs. 300 Cr and Rs. 632.69 Cr as capitalization during FY 2011-12 and FY 2012-13 respectively as detailed in Table 82.

Table 82: Capitalization submitted by CSPTCL (Rs. Cr)

Particulars	FY 2011-12	FY 2012-13
Capital cost	248.85	563.67
IDC	51.15	69.02
Total amount capitalized	**300.00**	**632.69**

Commission's views

4.55 The Commission observed significant difference between approved capitalization as per MYT order and petitioner's submission and asked CSPTCL to submit scheme-wise details of expected capitalization in FY 2011-12 and FY 2012-13. The summary of revised submission by CSPTCL is given in Table 83.

Table 83: Revised capitalization submitted by CSPTCL (Rs. Cr)

Particulars	FY 2011-12	FY 2012-13
Capital cost	265.25	1294.87
IDC	51.15	69.02
Total amount capitalized	**316.4**	**1363.89**

4.56 The Commission scrutinized the details of schemes submitted by CSPTCL and based on progress reports submitted by CSPTCL indicating progress till date, the Commission has considered only those schemes which are expected to be completed by FY 2012-13 for approving capitalization. Further, the Commission has also considered schemes to be implemented under new Business plan of capital cost Rs. 14.38 Cr in capitalization for FY 2012-13. The capitalization as approved by the Commission is given in Table 84.

Table 84: Capitalization approved by the Commission (Rs. Cr)

Particulars	FY 2011-12		FY 2012-13	
	Approved in MYT order	Approved in this order	Approved in MYT order	Approved in this order
Total amount capitalized	**722.08**	**316.4**	**614.35**	**1216.61**

4.57 The capitalization approved by the Commission is significantly higher in FY 2012-13 in this order as compared to MYT order because several large power evacuation schemes such as Korba West etc. are expected to be commissioned in FY 2012-13.

O&M expenses

4.58 CSPTCL has provided gross O&M expenses on actual basis from April-December 2011 and estimate for Jan-March 2012 in its petition. It has been stated that due to lower realization of tariff from CSPDCL, CSPTCL could not plan necessary renovation and replacement of equipments, old circuit breakers, relays etc. and modernization works in EHV sub-stations. Hence, CSPTCL has limited its O&M expenses according to the anticipated realization value against approved in the tariff order.

4.59 For FY 2012-13, CSPTCL has calculated O&M expenses by considering norms specified in CSERC MYT Regulations, 2010 and line length and number of bays expected on March 31, 2012. The O&M expenses as submitted by CSPTCL are given in Table 85.

Commission's View

4.60 The Commission has decided to consider the petitioner's submission for FY 2011-12 in this order. CSPTCL has prayed before the Commission to approve O&M expenses on FY 2011-12 as per its submission as CSPTCL makes payments for advance tax on the basis of approved ARR. Since, in the past, CSPTCL has realized lower tariff from CSPDCL, but has paid income tax on the basis of higher ARR, higher ARR is leading to higher tax payments and cash strapped situation for CSPTCL. Thus, the Commission has decided to consider CSPTCL's plea in this respect and approved O&M expenses as per its submission.

4.61 The O&M expenses approved for FY 2011-12 are mentioned in Table 85.

Table 85: Operation and maintenance expenses (Rs. Cr)

Operation and maintenance expenses (FY 2011-12)	Approved in MYT order	Submitted in the petition	Approved in this order
Employee expenses		148.94	148.94
Administration and general expenses		24.95	24.95
Repairs and maintenance expenses		29.91	29.91
Total O&M expenses	302.20	203.80	203.80

4.62 For FY 2012-13, the Commission has decided to approve O&M expenses as 75% of normative O&M expenses. The Commission has made this adjustment as it has observed that in the past, CSPTCL has not incurred O&M expenses to the extent of allowed O&M expenses. Hence, the Commission has for the present allowed O&M expenses for FY 2012-13 to 75%. However, if CSPTCL incurs expenditure more than 75% of normative O&M expenses, the Commission will consider it at the time of true-up subject to limitation of normative value of O&M expenses for FY 2012-13.

4.63 As mentioned in Section 4.16, the Commission had observed certain discrepancies in the data provided by CSPTCL in its petition regarding numbers of bays and line length. Upon clarifying the same from CSPTCL, the Commission has considered transmission network as given in Table 86.

Table 86: Transmission network considered by the Commission

Particulars	March 2011	March 2012
(C) Length of Transmission Lines (ckt. Kms)		
- Single Circuit (Single Conductor)		
- 400 kVA	277	277
- 220 kVA	124.93	124.93
- 132 kVA	950.73	950.73

Particulars	March 2011	March 2012
- Sub-total Single Circuit (Single Conductor)	*1352.66*	*1352.66*
- Double Circuit (Twin & Triple conductor)	0	0
- Double Circuit (Single Conductor)		
- 400 kVA	0	0
- 220 kVA	2808.95	2808.95
- 132 kVA	3358.29	3483.29
Sub-total Double Circuit (Single Conductor)	*6167.24*	*6292.24*
Total length of transmission lines	**7519.89**	**7644.90**
(B) Number of bays		
- 400 KV	11	11
- 220 KV	119	127
- 132 KV	412	450
- 66 KV	0	0
- 33 KV	686	742
- 11 KV	53	53
Total number of bays	**1281**	**1383**

4.64 Based on the norms specified in Section 4.14 and transmission network specified in Section 4.63, the Commission has calculated the normative O&M expenses as given in Table 87.

Table 87: Normative O&M expenses (Rs. Cr)

Particulars	FY 2012-13
(D) O&M expenses of Transmission Lines as per norms	
- Single Circuit (Single Conductor)	2.87
- Double Circuit (Twin & Triple conductor)	0
- Double Circuit (Single Conductor)	20.01
Total (A)	22.88
(E) O&M expenses of bays as per norms	
- 400 KV	6.81
- 220 KV	55.04
- 132 KV	139.32
- 66 KV	0
- 33 KV	112.56
- 11 KV	5.63
Total (B)	319.36
(C) Share of holding company expenses	5.70
Total O&M expenses (Rs. Cr.) (A+B+C)	**347.94**

4.65 The Commission approves 75% of Rs. 347.94 Cr, i.e. Rs. 260.95 Cr as allowed O&M expenses for FY 2012-13. It also includes annual contribution to pension fund of Rs. 20.5 Cr for employees of CSPTCL and SLDC and CSPTCL's share of Rs. 0.77 Cr for contribution to pension fund for employees of Holding Company.

Interest on working capital

4.66 For the purpose of calculating the working capital, CSPTCL has considered:

- i) O&M expense: 1 month's O&M expenditure
- ii) Maintenance spares: 15% of O&M expenditure
- iii) Receivables: 2 months of income

4.67 CSPTCL has considered Prime lending rate of State Bank of India on April 1, 2010, i.e. 11.75% as interest rate for calculating interest on working capital. The details of interest on working capital submitted by CSPTCL are given in Table 88.

Commission's Views

4.68 The Commission has accepted the methodology and PLR rate proposed by the petitioner and has considered allowed O&M expenses for calculating working capital requirements. However, the Commission has reduced contribution to pension and gratuity from O&M expenses for calculating normative working capital requirements.

Table 88: Interest on working capital (Rs. Cr)

	FY 2011-12			FY 2012-13		
Interest on working capital loan	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
O&M expenses	23.48	15.83	15.21	28.01	28.46	19.97
Maintenance spares	42.46	28.50	27.38	50.41	51.23	35.95
Receivables	100.14	78.06	86.20	127.95	119.06	119.99
Total working capital	165.87	122.39	128.79	206.37	198.75	175.91
Interest on working capital @ 11.75%	**19.49**	**14.38**	**15.13**	**24.25**	**23.35**	**20.67**

Depreciation

4.69 The petitioner has computed depreciation on total assets as per the schedule of rates specified in the CSERC MYT Regulations, 2010. CSPTCL has submitted Rs. 98.8 Cr and Rs. 123.1 Cr as depreciation and 5.22% as weighted average rate of depreciation for FY 2011-12 and FY 2012-13 respectively.

Commission's views

4.70 The Commission has observed that CSPTCL has calculated depreciation on the basis of capitalization submitted by it in the petition. However, during TVS and further discussions, the capitalization has been revised by the petitioner and Commission has scrutinized details of schemes submitted and approved capitalization accordingly.

4.71 The Commission has considered the asset schedule submitted by the petitioner as a base for calculating weighted average rate of depreciation. The calculated rate is then used to compute depreciation considered approved capitalization as per provisions of CSERC MYT Regulations, 2010.

Table 89: Depreciation (Rs. Cr)

Depreciation	FY 2011-12 Approved in MYT order	FY 2011-12 Submitted in the petition	FY 2011-12 Approved in this order	FY 2012-13 Approved in MYT order	FY 2012-13 Submitted in the petition	FY 2012-13 Approved in this order
Opening GFA	1650.58	1742.56	1737.32	2372.66	2042.56	2053.69
Additional Capitalization	722.08	300.00	316.37	614.35	632.69	1216.61
Closing GFA	2372.66	2042.56	2053.69	2987.01	2675.25	3270.30
Rate of depreciation	5.22%	5.22%	5.23%	5.22%	5.22%	5.24%
Amount of depreciation	97.49	98.79	91.5	132.32	123.13	131.63

Interest on loan

4.72 CSPTCL has submitted that the interest on term loans is computed on the normative loan as per Clause 23 of CSERC MYT Regulations, 2010. CSPTCL has assumed that additional capitalization will be funded in debt: equity ratio of 80:20 in FY 2011-12 and FY 2012-13, as approved by the Commission in MYT order. CSPTCL has considered rate of interest as 11.22%, which was approved by the Commission in MYT order. The normative loan and interest calculations as submitted by CSPTCL for FY 2010-11 are given in Table 90.

Commission's View

4.73 The Commission has considered methodology and debt: equity ratio assumed by the petitioner. The weighted average rate of interest has been considered as 11.22%, as approved in MYT order.

4.74 The Commission has also observed that CSPTCL has made a mistake in considering opening gross normative loan. The same has been rectified by the Commission in this order.

4.75 Considering the above, the interest on normative loan as approved by the Commission for FY 2011-12 and FY 2012-13 is given in Table 90.

Table 90: Interest on normative loan (Rs. Cr)

	Interest on normative loan	FY 2011-12 Approved in MYT order	FY 2011-12 Submitted in the petition	FY 2011-12 Approved in this order	FY 2012-13 Approved in MYT order	FY 2012-13 Submitted in the petition	FY 2012-13 Approved in this order
A	Gross normative loan-opening	1209.50	1214.58	1239.89	1787.17	1454.58	1492.99
B	Cumulative repayment of normative loan upto previous year	146.00	164.92	148.25	243.49	263.71	239.75
C	Net normative loan- opening (A-B)	1063.50	1049.66	1091.64	1543.68	1190.87	1253.23
D	Increase in normative loan due to additional capex during the year	577.66	240.00	253.10	491.48	1110.80	973.29
E	Repayments of normative loan during the year	97.49	98.79	91.50	132.32	123.13	131.63
F	Net normative loan – closing (C+D-E)	1543.68	1190.87	1253.23	1902.84	2178.53	2094.89
G	Average normative loan (C+F)/2	1303.59	1120.26	1172.44	1723.26	1684.70	1674.06

		FY 2011-12			FY 2012-13		
H	Weighted average rate of interest on actual loans	11.22%	11.22%	11.22%	11.22%	11.22%	11.22%
I	Interest on normative loan (G*H)	146.22	125.69	131.51	193.29	189.02	187.77

Return on Equity

4.76 As mentioned in Section 4.72, the petitioner has assumed that additional capitalization is funded by equity to the extent of 20%. The rate of return on equity has been computed by grossing up the base rate with the MAT rate as per Clause 22.3 of CSERC MYT Regulations, 2010.

Commission's views

4.77 The Commission has considered opening balance of equity for FY 2011-12 as determined in Section 4.40 of this order. Further addition in equity in FY 2011-12 and FY 2012-13 is considered at 20% of additional capitalization.

4.78 The Commission has considered MAT rate as 19.931% and 20.008% in FY 2011-12 and FY 2012-13 respectively. The pre-tax rate of return on equity is 19.358% and 19.377% for FY 2011-12 and FY 2012-13 respectively. The return on equity approved by the Commission in given in Table 91.

Table 91: Return on Equity (Rs. Cr)

		FY 2011-12			FY 2012-13		
	Return on Equity	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
A	Opening balance of equity	441.09	497.31	497.42	585.50	557.31	560.70
B	Addition in normative equity during the year	144.4	60.00	63.3	122.87	126.54	243.32
C	Closing balance of equity (A+B)	585.50	557.31	560.70	708.37	683.85	804.02
D	Notional equity for computation of ROE (A+B/2)	513.30	527.31	529.06	646.94	620.58	682.36
E	Return on Equity	99.36	102.08	102.42	125.24	120.13	132.22

Other expenses capitalised

4.79 The petitioner has submitted actual O&M expenses net of capitalization for FY 2011-12 in its petition, while the Commission has approved gross O&M expense based on petitioner's submission. Thus, the Commission has reduced O&M expenses capitalized to arrive at ARR for FY 2011-12.

4.80 While calculating normative O&M expenses for FY 2012-13, the Commission has not considered O&M expenses capitalized as part of the allowed O&M expenses. Hence, the Commission has not considered any O&M expenses capitalized for FY 2012-13.

Table 92: Other expenses capitalised (Rs. Cr)

Other expenses capitalized	FY 2011-12	FY 2012-13
Approved O&M expenses	203.80	260.95
O&M expenses capitalised	14.82	0
O&M expenses (net of capitalization)	188.98	260.95

Non tariff income

4.81 Non-tariff income comprises mainly of income from all sources viz., interest on fixed deposits, delayed payment charges, miscellaneous receipts, income from trading other than electricity. The details of non-tariff income submitted by CSPTCL are given in Table 93.

Commission's View

4.82 The Commission has considered the non-tariff income submitted by CSPTCL in this order.

Table 93: Non-tariff income (Rs. Cr)

	FY 2011-12			FY 2012-13		
Non-tariff income	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
(A) Income from investment, fixed and call deposits						
- Interest income from investments	1.31	0.00	0.00	1.31	0.00	0.00
- Interest on fixed deposits	0.00	3.93	3.93	0.00	4.17	4.17
- Interest from banks other than fixed deposits	0.002	0.00	0.00	0.002	0.00	0.00
- Interest on any other items	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total (A)	1.32	3.93	3.93	1.32	4.17	4.17
(B) Other non-tariff income						
- Interest on loans and advances of staff	0.19	0.10	0.10	0.19	0.11	0.11
- Interest on loans and advances to licensee	0.00	0.00	0.00	0.00	0.00	0.00
- Interest on loans and advances to lessors	0.00	0.00	0.00	0.00	0.00	0.00
- Interest on advances to suppliers / contractors	1.00	0.44	0.44	1.00	0.47	0.47
- Income from trading (other than electricity)	4.56	0.00	0.00	4.79	0.00	0.00
- Gain on sale of fixed assets	0.00	0.00	0.00	0.00	0.00	0.00
- Income/fee/collection against staff welfare activities	0.01	0.00	0.00	0.01	0.00	0.00
- Miscellaneous receipts	5.74	7.86	7.86	6.02	8.59	8.59
- Delayed payment charges from beneficiary	0.00	0.00	0.00	0.00	0.00	0.00
- Misc. charges from beneficiary	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total (B)	11.50	8.40	8.40	12.02	9.16	9.16
Total (A+B)	**12.82**	**12.33**	**12.33**	**13.33**	**13.33**	**13.33**

Annual Revenue Requirement

4.83 Based on various components of expenses and return discussed above, the summary of ARR of CSPTCL for FY 2011-12 and FY 2012-13 is given in Table 94.

Table 94: Annual Revenue Requirement of CSPTCL (Rs. Cr)

	FY 2011-12			FY 2012-13		
Annual Revenue Requirement	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
O&M Expenses	302.23	203.80	203.80	356.60	341.52	260.95
Depreciation	97.49	98.79	91.50	132.32	123.13	131.63
Interest on loan	146.22	125.69	131.51	193.29	189.02	187.77
Interest on working capital	19.49	14.38	15.13	24.25	23.35	20.67
Less: Other expenses capitalized	-51.15	-51.15	-14.82	-50.67	-69.05	0
Total expenditure	514.27	376.70	427.12	655.78	607.98	601.03
Add: Reasonable return	99.36	102.08	102.42	125.24	120.13	132.33
Less: Non-tariff income	12.82	12.33	12.33	13.33	13.33	13.33
Aggregate revenue requirement	600.82	466.44	517.21	767.68	714.78	719.92
Recovery during the year			748.30			
Surplus/(Deficit) during the year			231.09			
Surplus/(deficit) carried forward from previous year			-57.72			173.37
Surplus carried forward to next year			173.37			
Adjusted ARR						546.55

Date of applicability of tariff

4.84 In accordance with the CSERC (Details to be Furnished by the Licensees or Generating Company for Determination of Tariff and Manner of Making Application) Regulations, 2004 and CSERC MYT Regulations a public notice of seven (7) days has to be given before implementation of the tariff order.

4.85 In this tariff order, the Commission has created a regulatory asset of Rs 828 Cr from the revenue gap of CSPDCL. The Commission has also decided to provide suitable carrying cost for the regulatory assets. Due to this the distribution utility shall not be able to recover the full cost as per the ARR resulting shortfall in working capital and cash flows issues. However to give relief to some extent, the Commission has decided to implement the tariff/charges for CSPGCL, CSPTCL and SLDC w.e.f the same date as the date of applicability of the retail tariff of CSPDCL, which shall be intimated by CSPDCL to CSPGCL, CSPTCL and SLDC.

Payment of Transmission Charge for use of CSPTCL's system

4.86 The annual transmission charges has been determined in accordance with the norms specified in the CSERC MYT Regulations, 2010 and after detailed examination and prudence check of the petition submitted by the petitioner. As per the CSERC MYT Regulations, 2010 for determination and recovery of transmission charges from the users of CSPTC's system, the annual transmission cost (fixed cost) shall be recovered on a monthly basis.

4.87 The CSERC MYT Regulations, 2010 specify that the transmission charge (inclusive of incentive) payable for a calendar month for the use of CSPTCL's system or part thereof shall be

AFC x (NDM / NDY) x (TAFM / NATAF) Where,

AFC = Annual fixed cost specified for the year, in Rupees

NATAF = Normative annual transmission availability factor, in percent

NDM = Number of days in the month

NDY = Number of days in the year

TAFM = Transmission system availability factor for the month, in Percent shall be computed in accordance with the methodology specified in the CSERC MYT Regulations, 2010.

4.88 CSPTCL shall raise the bill for the transmission charge (inclusive of incentive) for a month based on its estimate of TAFM. Adjustments, if any, shall be made on the basis of the TAFM to be certified by the SLDC within 30 days from the last day of the relevant month.

4.89 But, the CSPTCL has proposed that to start with the billing in accordance with the methodology specified in the CSERC MYT Regulations, 2010, they would be required to determine the transmission system availability factor for the month. For this, the Commission directs that the CSPTCL may conduct a trial-run and start mock billing according to the methodolgy specified in the Regulations no later than July 2012.

Billing for FY 2012-13

4.90 Due to the reasons stated above for FY 2012-13, the CSPTCL shall recover the annual transmission charges from the users of the CSPTCL system on a monthly basis as below.

4.91 The annual transmission charge for FY 2012-13 is Rs. 546.55 Cr. Monthly transmission charges are Rs. 45.55 Cr. 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.

4.92 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.

Illustration

Case 1:

Suppose the maximum demand in previous financial year i.e. FY 2011-12 is 3274 MW.

Suppose, there are two long term open access customers and there are no medium term and short term open access customers for FY 2012-13.

The capacity contracted by long-term open access customer, say ABC is 16 MW.

The capacity served for CSPDCL shall be 3274-16 =3258 MW.

The annual estimated and approved transmission charge for FY 2012-13 is Rs 546.55 Cr, then monthly transmission charges for FY 2012-13 shall be shared as follows:

CSPDCL = (546.55 x 3258) /(3274 x 12) = Rs 45.32 Cr

Long-term open access customer, ABC= (546.55 x 16)/(3274 x 12) = Rs 0.223 Cr or Rs. 22.26 lacs.

Case 2:

Suppose the maximum demand in previous financial year i.e. FY 2011-12 is 3274 MW.

Suppose, there are two existing long term open access customers and a new medium term open access customer has been granted approval from the month of August of FY 2012-13. Suppose there is no short term open access customer for the month of August of FY 2012-13.

The capacity contracted (allotted) for first long-term open access customer, say ABC is 16 MW.

The capacity allotted to a medium-term open access customer by CSPTCL is 20 MW.

The capacity served for the second long term open access CSPDCL shall be 3274-16-20 =3238 MW.

The annual estimated and approved transmission charge for FY 2012-13 is Rs 546.55 Cr, then monthly transmission charges for FY 2012-13 shall be shared as follows:

CSPDCL = (546.55 x 3238) /(3274 x 12) = Rs 45.05 Cr.

Long-term open access customer ABC= (546.55 x 16)/(3274 x 12) = Rs 0.223 Cr or Rs. 22.26 lacs.

Medium term open access customer = (546.55 x 20)/(3274 x 12) = Rs. 0.278 crores or Rs. 27.82 lacs

Case 3:
Suppose the maximum demand in previous financial year i.e. FY 2011-12 is 3274 MW.

Suppose, there are two existing long term open access customers and an existing medium term open access customer is there for the month of September of FY 2012-13.
Suppose short term open access is granted to 10 new open access customers for the use of CSPTCL's system for the month of September of FY 2012-13.

The capacity contracted (allotted) for first long-term open access customer, say ABC is 16 MW.

The capacity allotted to a medium-term open access customer by CSPTCL is 20 MW.
The capacity served for the second long term open access CSPDCL shall be 3274-16-20 =3238 MW.

The annual estimated and approved transmission charge for FY 2012-13 is Rs 546.55 Cr.

Suppose the revenue earned from the ten short-term open access customers for the month of September of FY 2012-13 is Rs. 5 Cr.

Then, the monthly transmission charge payable by the long term and medium term open access customers shall be (546.55/12)-5 = Rs. 40.55 Cr.

The monthly transmission charges for the month of September shall be shared as follows:

CSPDCL = (40.55 x 3238) /(3274) = Rs 40.10 Cr

Long-term open access customer ABC= (40.55 x 16)/(3274) = Rs 0.198 Cr or Rs. 19.81 lacs.

Medium term open access customer = (40.55 x 20)/(3274) = Rs. 0.247 Cr or Rs. 24.77 lacs.

4.93 **Methodology for computation of short term transmission charges**:

The information provided by CSPTCL/ SLDC reveals that for the year 2011-12 the maximum demand met by the State is 3274 MW. For estimating the energy input or energy to be handled by CSPTCL's system for the year 2012-13, the Commission has considering load factor of 85% on maximum demand met in previous year (2011-12). This corresponds to 24378 MU. Accordingly, it is estimated that 24378 MU may be handled by CSPTCL's system in the year 2012-13.

5 STATE LOAD DISPATCH CENTRE (SLDC) – PETITION NO. 03/2012 (T)

About SLDC

5.1 In accordance with the Subsection (1) of the Section 31 of the Electricity Act, 2003 which provides that "the State Government shall establish a Centre to be known as the State Load Dispatch Centre for the purposes of exercising the powers and discharging the functions under this part.", the State Government needs to establish a SLDC. While, Subsection (2) of Section 31 provides that "the said SLDC shall be operated by a Government company/authority/corporation constituted by or under any State Act and that until such company/authority/corporation is notified by the State Government, the State Transmission Utility (STU) shall operate SLDC"

5.2 As mentioned in the petition, Load Dispatch Centre which is being operated for the purpose of exercising the powers and discharging the functions of State Load Dispatch Centre (SLDC) in the state of Chhattisgarh under the said Act, is presently functioning at two places, one at SLDC building, Raipur and other at the 400 kV sub-station, Bhilai. The shifting of the portion of SLDC from Bhilai to Raipur is in pipe-line and is expected to be completed soon. SLDC's financial accounting has been separated from CSPTCL w.e.f April 1, 2010 for the regulatory purpose.

5.3 The State Load Dispatch Centre is the apex body to ensure integrated operation of the power system in a State. The State Load Dispatch Centre performs the following functions:

i) Ensure optimum scheduling and dispatch of electricity within a State, in accordance with the contracts entered into with the licensees or the generating companies operating in that State;
ii) Monitor grid operations;
iii) Keep accounts of the quantity of electricity transmitted through the state grid;
iv) Exercise supervision and control over the intra-state transmission system; and
v) Be responsible for carrying out real time operations for grid control and dispatch of electricity within the State through secure and economic operation of the State grid in accordance with the Grid Standards and the State Grid Code.

Tariff Filing

5.4 SLDC has filed the petition for provisional truing up of FY 2010-11 and annual performance review of FY 2011-12 and revision of ARR for FY 2012-13 on 31.12.2011 and the petition was admitted on 17.01.2012. Upon scrutiny of the petition, several discrepancies were observed and additional information requirement were identified by the Commission and communicated to SLDC. Some of the information asked for is mentioned below:

i) Explain reasons for 182% increase in capital investment plan- SLDC building from Rs. 0.77 Crs (approved by the Commission in MYT order) to Rs. 2.17 Crs (actual expenditure given in the petition) in FY 2010-11.

ii) Explain the reasons for significant increase in administration and general expenses from Rs. 0.42 Crs in April-Dec 2011 to Rs. 0.80 Cr in Jan-Mar 2012.

iii) Explain reasons for increase in CIP-SCADA/MEA/Communication etc from Rs. 1.49 Crs (as approved by the Commission) to Rs. 2.85 Crs (as given by the petitioner) in FY 2011-12.

iv) Provide the reasons for increase in CIP-SCADA/MES/Communication expenditure from Rs. 1.19 (as approved in the tariff order) to Rs. 2.45 in the petition in FY 2012-13.

v) Provide detailed break-up of SLDC development fund into return on equity, depreciation, other income such as registration fee, application fee, and short term open access charges recovered from intra-state entities etc. for FY 2010-11 and FY 2011-12 till date.

vi) Explain in detail how it has adjusted 50% of short term open access charges towards the charges payable by intra-state buyers, intra-state sellers and intra-state entities availing long term and medium term services of SLDC in FY 2010-11 and FY 2011-12 till date.

vii) Provide realistic estimate of capital expenditure (with detailed break-up) expected to be incurred during Jan-March 2012.

viii) Confirm whether pension fund for SLDC employees has been segregated from CSPTCL’s pension fund.

Provisional Truing up for FY 2010-11

5.5 This section contains a summary of the True Up Petition for the period FY 2010-11 as submitted by SLDC and the analysis/ observation/ of the Commission thereof. Since the audited annual accounts of FY 2010-11 are under finalization, SLDC has submitted petition for provisional truing-up of the ARR for the year based on the provisional accounts of FY 2010-11.

5.6 As per the CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations 2010, the ARR for SLDC will include the following components:

i) Operation and maintenance expenses;

ii) Interest on loan capital

iii) Interest on working capital

iv) Depreciation

v) Return on equity

Operation and Maintenance (O&M) expenses

5.7 The O&M expenses comprise of employee expenses, repair & maintenance expenses and administrative and general expenses. SLDC has submitted O&M expenses for FY 2010-11 based on actual expenses incurred by it during the year. In the MYT petition submitted last year, SLDC had estimated O&M expenses for FY 2010-11 on the basis of actual expenditure till date and the Commission had approved as per SLDC’s submission. In its provisional true up petition, SLDC has submitted Rs. 4.95 Cr as O&M expenses for 2010-11.

Commission's View

5.8 The Commission has approved the O&M expenses given by SLDC in its provisional true up petition for FY 2010-11 as per the provisional accounts submitted by the Petitioner. The Commission has also observed that O&M expenses submitted by SLDC are less than the amount approved in MYT order. As mentioned in Clause 5.4 of SLDC Regulations 2010, the Commission has decided to pass on the benefit of reduction in O&M expenses to the intra-state entities who pay SLDC charges.

Table 95: O&M expenses (Rs Cr)

O&M expenses (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
Employee expenses	4.74	3.78	3.78
Repair and maintenance expenses	1.52	0.95	0.95
Administration and general expenses	0.66	0.22	0.22
Total O&M expenses	**6.92**	**4.95**	**4.95**

Capital Investment Plan for FY 2010-11

5.9 In its petition, SLDC has submitted capital expenditure as Rs. 3.18 Cr during FY 2010-11 on account of SCADA/MEA/Communication (Rs. 1.01 Cr) and SLDC Building (Rs. 2.17 Cr). Further, SLDC has considered that the whole capital investment will be capitalized in the same year as the volume of investment is small and implementation period for most of the fixed assets acquired is less.

5.10 SLDC has considered normative debt:equity ratio of 70:30 for funding capital investment plan.

Commission's View

5.11 The Commission has observed that SLDC has inadvertently submitted capitalization as Rs. 3.18 Cr on account of plant & machinery in the content of the petition whereas as per Annexure 1 submitted by SLDC with the petition , addition in gross fixed assets of SLDC has been shown as Rs. 5.14 Cr on account of other buildings. The Commission also observed that the provisional accounts submitted by CSPTCL has also considered Rs. 5.14 Cr as the addition in gross fixed assets of SLDC. Accordingly, the Commission has considered capitalization of Rs. 5.14 Cr for FY 2010-11.

Table 96: Capitalization plan approved by the Commission (Rs. Cr)

	Approved in MYT order	Submitted in the petition	Approved in this order
Capitalization	1.83	3.18	5.14

Interest and finance charges

5.12 SLDC has assumed that the capital investment is funded by normative debt equity ratio of 70:30. Interest has been calculated on normative loan in compliance to the Clause 8 of the CSERC SLDC Regulations 2010 , which states that –

"The actual debt : equity ratio appearing in the books of accounts as on the date of transfer shall be considered for the opening capital cost of SLDC". In line with this, the petitioner has assumed that entire GFA as on March 31, 2010 was funded by equity as SLDC has not absorbed any debt from CSPTCL.

5.13 Repayment of normative loan was taken as equivalent to total depreciation during the year. SLDC has assumed rate of interest of new loans to be 11.25%.

Commission's Views

5.14 Since the the petitioner has computed the interets & finance charges in accordance with the CSERC SLDC Regulations 2010, the Commisison approves the methodology for computation of interest and finance charges proposed by the petitioner. Meanwhile, the Commision has considered the rate of interest for new loans at 11.22%, which is as per the benchmark PFC lending rate of CSPTCL. The lending rate of CSPTCL has been computed on the basis of the Weighted avergae interest rates as per the loan agreements between CSPTCL and PFC.

5.15 The interest on normative loan approved by the Commission is higher than that of MYT order due to higher capitalization approved in the provisioanl true-up of FY 2010-11.

Table 97: Interest on normative loan approved by the Commission (Rs. Cr)

Interest on Normative Loan (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
Opening Normative loan	0	0.89	0.00
Capital expenditure during the year	1.83	3.18	5.14
Increase in debt due to capital expenditure	1.28	2.23	3.59
Repayment of Normative loan during the year	0.39	0.81	0.46
Closing normative loan	0.89	2.31	3.14
Average normative loan	0.44	1.60	1.57
Interest on normative loan	0.05	0.18	0.18

Interest on Working Capital

5.16 SLDC has estimated working capital on normative basis in its petition. The norms are as per CSERC SLDC Regulations, 2010 and given below:

i) O & M Expenses (other than HR expenses) : 1 month's expenditure
ii) HR Expenses : 1 month's expenditure
iii) Receivables : 2 months of income

5.17 The interest on working capital has been considered at normative interest rate of 11.75%, which was prevailing SBI Short term Prime Lending Rate at the beginning of the control period.

Commission's View

5.18 The Commission has accepted the methodology adopted by the petitioner. However, the Commission has noticed that SLDC had provided incorrect computation of working capital requirements on account of O&M expenses. The Commission has rectified the error and approves the interest on working capital for provisional true up as shown under.

Table 98: Interest on working capital (Rs. Cr)

Interest on Working Capital (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
O&M expenses (excl. HR expenses)	0.18	0.08	0.10
Human Resource expenses	0.39	0.28	0.31
Receivables	1.74	1.31	1.36
Total working capital	2.31	1.67	1.77
Interest on working capital	**0.27**	**0.20**	**0.21**

Depreciation

5.19 SLDC has calculated depreciation by segregating assets as acquired before and after April 1, 2010. The Petitioner has submitted the depreciation amount against assets acquired before April 1, 2010 while depreciation for assets acquired after April 1, 2010 has been submitted separately. Total depreciation subnitted by SLDC for FY 2010-11 is Rs. 0.81 Cr.

Table 99: Depreciation as per SLDC's submission (in Rs. Cr)

Depreciation (FY 2010-11) as per SLDC's submission	Submitted in the petition
GFA as on April 1, 2010	17.26
Depreciation on opening assets	0.69
Depreciation on assets acquired after April 1, 2010	0.12
Total depreciation for the year	**0.81**

Commission's View

5.20 The Commission has observed that SLDC has provided incorrect computation of depreciation in its petition. The GFA on April 1, 2010 is not Rs. 17.26 Cr, instead it is Rs. 14.08 Cr as per provisional accounts.

5.21 It is also to be noted that the Commission had followed different methodology in the MYT order. The Commission had segregated assets as acquired before and after April 1, 2009. The Commission had accepted the depreciation amount submitted by the Petitioner in MYT petition against assets acquired before April 1, 2009 while depreciation for assets acquired after April 1, 2009 had been calculated as per the rates of depreciation provided in CSERC SLDC Regulations, 2010.

5.22 In this order, the Commission has decided to follow the methodolgy followed in the MYT order. The Commission has made necessary corrections in opening balance of gross fixed assets and capitalization while calculating depreciation.

Table 100: Depreciation of SLDC (Rs. Cr)

Depreciation (FY 2010-11)	Approved in MYT order	Approved in this order
GFA as on April 1, 2009	10.91	10.91
Depreciation on opening assets	0.25	0.25
Depreciation on assets acquired after April 1, 2009	0.14	0.21
Total depreciation for the year	**0.39**	**0.46**

Return on Equity

5.23 As per Clause 12 of CSERC SLDC Regulations, 2010, the maximum post-tax rate of reasonable return allowed is 15.5% for SLDC. The pre-tax RoE has been calculated after grossing up rate of return with applicable tax rate, i.e. MAT rate in this case.

Commission's View

5.24 The Commission has approved the methodology followed by the Petitioner for calculating RoE, which is in line with Clause 8 of CSERC SLDC Regulations, 2010. The Commission has considered higher capitalization in FY 2010-11 in true-up, due to which RoE allowed in this order is more than that of MYT order. Further, it is to be noted that SLDC had incorrectly computed RoE, which has been rectified by the Commission. The reasonable return allowed by the Commission for FY 2010-11 is given in Table 101.

Table 101: Return on Equity approved (Rs. Cr)

Return on Equity (FY 2010-11)	Approved in MYT order	Submitted in the petition	Approved in this order
GFA as on April 1, 2010	14.08	14.08	14.08
Normative equity capital for existing assets	14.08	14.08	14.08
Additions to equity due to increase in GFA	0.55	0.95	1.54
Return on Equity	**2.78**	**2.91**	**2.77**

Sharing of charges collected from short term open access customers

5.25 Clause 23 (2) of CSERC SLDC Regulations, 2010 specifies that 50% of charges collected from short term open access customers 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. Accordingly, 50% of Rs. 1.057 Cr collected by SLDC from such customers has been deducted while calculating ARR of FY 2010-11.

ARR of SLDC for FY 2010-11 (provisionally trued up)

5.26 Based on various elements of expenses and return discussed above, the summary of provisional true-up of SLDC for FY 2010-11 is given in Table 102.

Table 102: Provisional true-up of SLDC (Rs. Cr)

ARR for FY 2010-11 (provisionally trued up)	Approved in MYT order	Submitted in the petition	Approved in this order
O&M expenses excl. human resource expenses	2.18	1.17	1.17
Human resource expenses	4.74	3.78	3.78
Depreciation	0.39	0.81	0.46
Interest on loan capital	0.05	0.18	0.18
Interest on working capital	0.27	0.20	0.21

Return on Equity	2.78	2.91	2.77
Less: Sharing of charges collected from STOA customers	-	-	(0.53)
Total ARR	**10.42**	**9.05**	**8.03**

Annual Performance Review for FY 2011-12 and Revision of Aggregate Revenue Requirement for FY 2012-13

5.27 This section contains a summary of the Petition for the period FY 2011-12 and revision of ARR for FY 2012-13 and analysis of the Commission thereof.

Operation and Maintenance (O&M) expenses

5.28 SLDC submitted details of actual expenditure incurred during Apr-Dec 2011 anticipated expenditure during Jan-Mar 2012 to arrive at O&M expenses for FY2011-12. The submission made by SLDC regarding O&M expenses is given in Table 103.

Commission's view

5.29 However, the Commission has decided not to consider SLDC's submission based on revised estimate. Instead, the Commission has decided to consider normative O&M expenses for FY 2011-12 and FY 2012-13, which were approved in MYT order, in this order. Any gain/loss on account of actual expenditure vs. approved O&M expenses will be considered for review at the time of true-up.

Table 103: O&M expenses for FY 2011-12 and FY 2012-13 (Rs. Cr)

	FY 2011-12			FY 2012-13		
O&M expenses (Rs. Cr)	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
Employee expenses	5.51	4.69	5.51	6.57	6.56	6.57
Repairs and maintenance expenses	1.55	1.11	1.55	1.58	1.58	1.58
Administration & general expenses	0.70	1.22	0.70	0.74	0.74	0.74

Capitalization

5.30 SLDC in its petition has submitted Rs. 4.75 Cr and Rs. 3.45 Cr as capital investment plan during FY 2011-12 and FY 2012-13 respectively. As mentioned in Section 5.9, capital investment plan of a year is assumed to be capitalized in the same year.

Table 104: Details of Capital expenditure submitted by SLDC (Rs lacs)

S. No.	Details of capital expenditure	FY 2011-12	FY 2012-13
1	MEA system of SLDC	0	20
2	Estimate for upgradation of SLDC Khedamara	5	0
3	Procurement of anti-virus software for SLDC	0.2	0
4	Estimate of printer for SLDC	1.91	0
5	MEA system for SLDC	33.12	0
6	Shifting of EMS/SCADA and associate system	75.69	0
7	Estimate of purchase of projector	0.63	0
8	Procurement of VDU n Digi C/CON	1.53	0
9	Estimate for office furniture for SLDC	6.94	0
10	Procurement of VRLA battery sets for SLDC	6.74	0

S. No.	Details of capital expenditure	FY 2011-12	FY 2012-13
11	Estimate for purchase of PDH spares	28	0
12	Procurement of Video conferencing system	16	0
13	Procurement of modern splitter, FEP rack	25.81	0
14	Estimate for establishment of OPGW link to HQ for SLDC	84.17	0
15	Hardware n software for SCADA/EMS system, hardware/software for XMP, PDH n SDH, enhancement of resource of SCADA system	0	50
16	Design, development of SLDC website	0	0
17	Cyber security and data security	0	20
18	Implementation of 61850/104 protocol	0	20
19	Shifting of SLDC equipment	0	30
20	Communication between Raipur n Bhilai SLDC	0	20
21	Purchase of new batteries of UPS and DCPS	0	20
22	Installation of additional transducers	0	10
23	Software upgradation (antivirus, office suite, proxy server, humming bird exceed etc.)	0	8
24	Estimate for procurement of audio conferencing system	0	15
25	Estimate of furniture for SLDC	0	10
26	AC for battery room	0	3
27	Estimate for inst. Comm for add. Transducer	0	15
28	10 Nos. computer with printer/UPS	0	4.1
29	SLDC Building cost	189	0
30	Sub-LDC (i.e. ALDC) at Bilaspur	0	100
	Total	**474.74**	**345.10**

5.31 SLDC has assumed that capital investment plan will be funded at debt: equity ratio of 70:30.

Commission's View

5.32 The Commission has observed that the capital investment plan submitted by SLDC in its petition is more than the approved investment plan considered by the Commission in the MYT order. The Commission asked SLDC to provide details of capital expenditure incurred till December 2011 and projections for Jan-March 2012 and FY 2012-13. In reply, SLDC has submitted details of capital expenditure as mentioned in Table 104.

5.33 The Commission has scrutinized the details of capital expenditure submitted by SLDC and has agreed to the capital investment plan and funding plan as submitted by SLDC in this petition.

Table 105: Capital investment plan (Rs. Cr)

	FY 2011-12			FY 2012-13		
Capital investment plan (Rs. Cr)	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
Capital investment	3.38	4.74	4.74	2.19	3.45	3.45
Debt	2.36	3.32	3.32	1.53	2.42	2.42
Equity	1.01	1.42	1.42	0.65	1.04	1.04

Interest and finance charges

5.34 As mentioned in Section 5.31, SLDC has considered debt: equity ratio of 70:30 for funding capital investment and rate of interest of loan as 11.25%.

Commission's view

5.35 The Commission has accepted the debt: equity ratio proposed by SLDC in its petition. However, as mentioned in Section 5.14, the Commission has considered 11.22% as rate of interest on loan.

5.36 The interest on normative loan is higher than that of MYT order and petitioner's submission on account of higher capitalization in FY 2010-11, which was not considered in MYT order and inadvertently missed by SLDC in its petition.

Table 106: Interest on normative loan (Rs. Cr)

	FY 2011-12			FY 2012-13		
Interest on normative loan	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
Opening Normative loan	0.89	2.31	3.14	2.68	4.61	5.86
Capital expenditure during the year	3.38	4.74	4.74	2.19	3.45	3.45
Increase in debt due to capital expenditure	2.36	3.32	3.32	1.53	2.42	2.42
Repayment of Normative loan during the year	0.57	1.02	0.59	0.80	1.19	0.79
Closing normative loan	2.68	4.61	5.86	3.40	5.84	7.50
Average normative loan	1.78	3.46	4.50	3.04	5.23	6.68
Interest on normative loan	0.20	0.39	0.51	0.34	0.59	0.75

Interest on working capital

5.37 SLDC has ascertained working capital requirements on normative basis as per CSERC SLDC Regulations, 2010 in the petition. It has considered 11.75% as rate of interest on working capital which is SBI Short term PLR at the beginning of the control period. The interest on working capital as submitted by SLDC is given in Table 107.

Commission's view

5.38 The Commission has accepted the methodology adopted by SLDC and has approved interest on working capital loan as mentioned in Table 107. The interest on working capital as approved in this order is marginally higher than that of MYT order on account of higher ARR and hence, higher receivables.

Table 107: Interest on working capital loan (Rs. Cr)

	FY 2011-12			FY 2012-13		
Interest on working capital loan	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
O&M expenses (excl HR expenses)	0.19	0.19	0.19	0.19	0.19	0.19
HR expenses	0.46	0.39	0.46	0.55	0.55	0.55
Receivables	1.96	1.70	2.06	2.25	2.58	2.37
Total working capital	2.61	2.23	2.70	2.99	3.32	3.11
Interest on working capital	0.31	0.27	0.32	0.35	0.39	0.36

Depreciation

5.39 SLDC has calculated depreciation by segregating assets as acquired before and after April 1, 2012. It has submitted the depreciation amount against assets acquired before April 1, 2012 while depreciation for assets acquired after April 1, 2012 has been submitted separately. Total depreciation subnitted by SLDC for FY 2011-12 is Rs. 1.02 Cr and for FY 2012-13 is Rs. 1.19 Cr.

Commission's View

5.40 The Commission has followed the methodology of the MYT order. It has segregated assets as acquired before and after April 1, 2009. The Commission has considered the depreciation amount submitted by the Petitioner in MYT petition against assets acquired before April 1, 2009 while depreciation for assets acquired after April 1, 2009 had been calculated as per the rates of depreciation provided in CSERC SLDC Regulations, 2010.

5.41 Further, the Commission has considered revised capitalization for FY 2010-11, FY 2011-12 and FY 2012-13, while calculating depreciation.

Table 108: Depreciation (Rs. Cr)

	FY 2011-12			FY 2012-13		
Depreciation	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
GFA as on April 1, 2009	10.91	10.91	10.91	10.91	10.91	10.91
Depreciation on opening assets	0.24	0.79	0.24	0.23	0.92	0.23
Depreciation on assets acquired after April 1, 2009	0.33	0.23	0.35	0.57	0.27	0.55
Total depreciation for the year	**0.58**	**1.02**	**0.60**	**0.81**	**1.19**	**0.78**

Return on Equity

5.42 SLDC has calculated return on equity after grossing up rate of return of 15.5% with applicable tax rate, i.e. MAT rate. The grossed up rate of return on equity is 19.358%. SLDC has submitted Rs. 4.43 Cr and Rs. 5.12 Cr as return on equity for FY 2011-12 and FY 2012-13 respectively.

Commission's view

5.43 The Commission has followed the methodolgy adopted in MYT order and has considered 100% equity funding of asssets transferred to SLDC on April 1, 2010. Clause 8 of CSERC SLDC Regulations 2010 state that actual debt: equity ratio as on the date of transfer should be considered. On the date of transfer, 100% of assets were funded by equity, therefore, 100% equity contribution is considered for assets transferred to SLDC on April 1, 2010. The Regulations also states that-

'*For an investment made on or after the date of transfer, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan. Provided that where equity actually deployed is less than 30% of the capital cost, the actual equity shall be considered for determination of charges*'.

5.44 Therefore, further equity funding has been considered as 30% of the assets value.

5.45 The rate of return on equity is considered as 15.5% as per Clause 12 of CSERC SLDC Regulations 2010. The rate of RoE is grossed up with MAT rate of 19.931% and 20.008% for FY 2011-12 and FY 2012-13 respectively to arrive at pre-tax rate of return on equity as 19.358% and 19.377% respectively to be used for computation of return on equity.

5.46 The opening balance of normative equity is higher in this order than that of MYT order due to higher capitalization in FY 2010-11. The return on equity approved by the Commission is given in Table 109.

Table 109: Return on equity (Rs. Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
Opening balance	14.63	22	15.62	15.64	25.45	17.04
Addition in equity	1.01	0.86	1.42	0.65	1	1.04
Notional equity for RoE calculations	15.14	22.86	16.33	15.97	26.45	17.56
Return on equity	2.93	4.43	3.16	3.09	5.12	3.40

Summary of Annual Revenue Requirement for FY 2011-12 and FY 2012-13

5.47 Based on various elements of expenses and return discussed above, the summary of ARR of SLDC as approved by the Commission is given in Table 110.

Table 110: Summary of Annual Revenue Requirement (Rs. Cr)

	FY 2011-12			FY 2012-13		
Annual Revenue Requirement	Approved in MYT order	Submitted in the petition	Approved in this order	Approved in MYT order	Submitted in the petition	Approved in this order
Human resource expenses	5.51	4.69	5.51	6.57	6.56	6.57
O&M expenses excl HR expenses	2.25	2.32	2.25	2.32	2.32	2.32
Interest on loan	0.20	0.39	0.51	0.34	0.59	0.75

capital						
Interest on working capital	0.31	0.27	0.32	0.35	0.39	0.36
Depreciation	0.58	1.02	0.60	0.81	1.19	0.79
Return on equity	2.93	4.43	3.16	3.09	5.12	3.40
ARR approved in this order	**11.78**	**13.12**	**12.34**	**13.48**	**16.17**	**14.19**

5.48 The adjusted ARR of SLDC on the basis of the previous year's surplus/(deficit) is given in Table 111.

Table 111: Adjusted ARR (Rs. Cr)

Adjusted ARR	FY 2010-11	FY 2011-12	FY 2012-13
Approved ARR as per this order	8.03	12.34	14.19
Surplus/(Deficit) from previous years	-	(0.18)	(0.75)
Recovery during the year	7.85	11.78	-
ARR including past surplus/(gaps)	8.03	12.53	14.95
Surplus/(deficit) for the year	**(0.18)**	**(0.75)**	**-**

Recovery of ARR by SLDC

5.49 The recovery of SLDC charges will be as per "*Chapter 4: Levy and Collection of fees and charges*" of CSERC SLDC Regulations, 2010.

5.50 **Illustration:** The annual charges of SLDC are Rs 14.95 Cr for FY 2012-13.

The total capacity contracted by intra-State sellers as per firm bilateral agreements i.e. long term and medium term/ PPA is 1907 MW.

CSPGCL has firm agreement for 1900 MW excluding renewable plants. Station Korba West has agreement for 840 MW, Station Korba East Complex has agreement for 440 MW, Station DSPM has firm agreement for 500 MW and Station Bango has agreement for 120 MW.

Say, a captive generating plant Arasmeta carries 7 MW (open access) for its captive use (at Lafarge plant).

For FY 2012-13

Annual System Operation Charges (SOC) = Rs 11.956 Cr (80% of annual charges)

Monthly System Operation Charges (SOC) = Rs 0.996 Cr (12.048/12)

50% of Monthly System Operation Charges (SOC) = Rs 0.498 Cr or Rs 49.8 lacs

Annual Market Operation Charges (MOC) = Rs 2.989 Crs (20% of annual charges)

Monthly Market Operation Charges (MOC) = Rs 0.249 Crs (2.989/12)

SOC charges

1) Monthly charges for CSPGCL = 1900/1907 x 0.498 = Rs. 0.496 Cr

2) Monthly charges for Arasmeta = 7/1907 x 0.498 = Rs. 0.002 Cr or Rs. 0.2 lacs

4) Monthly charges for CSPDCL = Rs 0.498 Cr

MOC Charges

CSPGCL has firm long term agreement/PPA for 1900 MW and it has 4 generating stations excluding renewable energy.

Arasmeta also supplies 7 MW of power from a single generating station.

Monthly MOC charges of CSPGCL shall be:

1) CSPGCL= 0.249*4/6 = Rs 0.1661 Cr or Rs. 16.61 lacs

Similarly, for CSPDCL and Arasmeta, monthly MOC charges are Rs. 4.15 lacs each.

6 CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LTD – PETITION NO. 61/2011(T)

About CSPDCL

6.1 The Government of Chhattisgarh (GoCG) vides notification No. 1-8/2008/13/1 dated December 19, 2008 issued the Chhattisgarh State Electricity Board (CSEB) Transfer Scheme Rules, 2008 with effect from January 1, 2009. As per the rules, the erstwhile CSEB has been unbundled into five independent companies, viz. Holding company, Generation Company, Transmission Company, Distribution Company and Trading Company. CSPDCL is the State Power Distribution Company and is responsible for distribution and retail supply of power within the State.

6.2 The opening balance sheet for CSPDCL as on January 1, 2009, as per the revised transfer scheme has been summarised below.

Table 112: Balance sheet for CSPDCL (Rs Cr) as on January 1, 2009

Particulars		Amount
Assets		
Gross Block	A	1,749.56
Less : Accumulated Depreciation	B	646.74
Net Fixed Assets	**C= A-B**	**1,102.82**
CWIP	D	806.52
Assets not in use		
Deferred Cost		
Intangible Assets	E	9.50
Investment	F	78.90
Investment in Subsidiary Company		
Net Current Assets		
Stock	G	29.24
Receivable against supply of power	H	1,166.24
Cash & Bank	I	23.11
Inter Company Receivable/(Payable)	J	(47.23)
Loans &Advances	K	394.57
Sundry Receivable	L	53.29
Total Current Assets	M = (SUM OF G TO L)	1,619.22
Less :		
Total Current Liabilities		
Security Deposits Consumers	N	463.22
Other Current Liabilities	O	1,034.33
Total Current Liabilities	P = **(N + O)**	1,497.55
Net Current Assets	**Q = (M - P)**	**121.67**
Subsidy Receivable from Government	R	240.48
ASSETS	**S = (C+D+E+F+ Q+R)**	**2,359.89**
Liabilities		
Borrowings of Working Capital		
Payments due on Capital Liabilities	A	149.03
Capital Liabilities	B	82.66
Funds from State Government		

Particulars		Amount
(A) Loan		
(B) Equity Capital		
Total funds from State Govt.	C	214.94
Contributions, Grants and Subsidies towards Cost of Capital Assets		
Reserves and Reserve Funds	D	91.03
Surplus (+ Equity Adjustment)	E	1,822.23
Sub Total Shareholder's Equity	*F = D+E*	*1,913.26*
LIABILITIES	**G = (A+B+C+F)**	**2,359.89**

Operational Performance

Distribution Network

6.3 The distribution network of CSPDCL (erstwhile CSEB) expanded aggressively since its inception and is projected to increase further. The year-wise additions to the distribution network executed and proposed is as follows:

Table 113: Additions to the Distribution Network

Particulars	FY 2007-08 (Actual)	FY 2008-09 (Actual)	FY 2009-10 (Actual)	FY 2010-11 (Prov)
Length of lines (ckt-km)				
- 33kV	1111	1137	508	673
- 11kV	2619	5204	4509	2605
- LT	9210	11023	9765	6549
Total	**12939**	**17363**	**14781**	**9827**
Number of 33/11kV substations	86	35	33	27
No. of Power Transformers	101	61	58	47
Total MVA capacity of power transformers	328	250	203	203
Number of Distribution Transformers	4274	7244	5950	4408
Total MVA capacity of Distribution Transformers	457	598	386	262

Sales Profile

6.4 An overview of the sales over the past five years, as submitted by the distribution company, is contained in the Table 114 below:

Table 114: LV Sales (MUs) from FY 2005-06 to FY 2010-11

Consumer Categories		FY 2005-06 Actual	FY 2006-07 Actual	FY 2007-08 Prov	FY 2008-09 Prov	FY 2009-10 Prov	FY 2010-11 Prov
LV-1	BPL Consumers	258	304	329	310	729#	478
LV-1	Other Domestic	1162	1236	1461	1607	1841	2,212
LV-2	Non Domestic	270	288	337	376	436	525
LV-3.1	Agriculture Metered	15	21	22	49	545	1,600
LV-3.2	Agriculture Flat Rate	430	565	751	1097	1145#	
LV-4	Agriculture Allied Services	0	0	5	6	9	11
LV-5	LV Industrial	357	374	399	400	416	434

Consumer Categories		FY 2005-06 Actual	FY 2006-07 Actual	FY 2007-08 Prov	FY 2008-09 Prov	FY 2009-10 Prov	FY 2010-11 Prov
LV-6	Public Utilities (PWW & SL)	109	109	121	125	144	166
LV-7	Temporary	136	110	76	97	109	115
	Sub Total – LV	**2737**	**3007**	**3500**	**4068**	**5375**	**5541**

BPL and Agricultural Sales as recorded in R-15 format

Table 115: EHV Category wise Sales (MUs) from FY 2005-06 to FY 2010-11

Consumer Categories		FY 2005-06 Actual	FY 2006-07 Actual	FY 2007-08 Prov	FY 2008-09 Prov	FY 2009-10 Prov	FY 2010-11 Prov
EHV-1	Railway Traction	617	653	652	701	697	773
EHV-2	Heavy Industries	1588	1445	1735	1831	696	411
EHV-3	Steel Industries	81	108	125	143	184	207
EHV-4	Coal Mine, Cement & Other EHV Industries	468	426	511	505	324	519
	Sub Total - EHV	**2753**	**2632**	**3022**	**3180**	**1901**	**1909**

Table 116: HV category-wise Sales (MUs) from FY 2005-06 to FY 2010-11

HV Categories		FY 2005-06 Actual	FY 2006-07 Actual	FY 2007-08 Prov	FY 2008-09 Prov	FY 2009-10 Prov	FY 2010-11 Prov
HV-1	Steel Industries	1371	1838	2121	2140	2708	3202
HV-2	Coal Mines & Cement Ind.	189	172	207	361	247	279
HV-3.1	Other HT Industries	385	462	408	424	403	451
HV-3.2	Other HT Industries	14	17	15	19	21	25
HV-4.1	Low Load Factor Industries	66	81	82	82	79	85
HV-4.2	Low Load Factor Industries	1	1	1	1	1	0
HV-5.1	Residential Purpose	233	220	231	236	222	247
HV-5.2	Residential Purpose	4	4	4	3	4	4
HV-6.1	General Purpose Non Industrial	107	111	144	183	214	219
HV-6.2	General Purpose Non Industrial	38	39	50	61	67	71
HV-7.1	Public Water works & Irrigation	25	28	25	25	26	30
HV-7.2	Public Water works & Irrigation	10	10	10	14	15	14
HV-8	Start Power	0	0	8	116	23	49
HV	Temporary Supply	0	0	17	4	9	8
HV	Temporary Supply	0	0	4	0	5	1
	Sub Total – HV	**2444**	**2983**	**3327**	**3670**	**4044**	**4686**

Petition Filing and Technical Validation

6.5 CSPDCL filed this Petition for provisional true up of FY 2010-11, APR for FY 2011-12, revision of ARR for FY 2012-13 and retail tariff for FY 2012-13 on November 30, 2011. On initial scrutiny of the MYT petition, several discrepancies and additional information requirement were identified by the Commission and sent to CSPDCL.

6.6 Technical Validation Sessions (TVS) were held on January 29, 2011 and were attended by the staff of the Commission, officers of CSPDCL, and consultants of both CSPDCL and the Commission. A summary of the data discrepancies raised to CSPDCL is given below:

iv) CSPDCL should submit the certified provisional annual accounts for FY 2010-11 of the company.

v) The sales submitted by the petitioner for EHV-1, EHV-4, HV-3.1, HV-4.1 categories for FY11 in the main petition and in Form 13 are different. The petitioner should remove the inconsistency and submit the actual value of sales.

vi) CSPDCL should submit the actual number of new BPL connections provided during Apr-Dec 2011

vii) CSPDCL should submit separately the actual sales for each category for Apr-Dec 2011.

viii) CSPDCL should submit the energy balance for FY 2010-11 in the format prescribed by the Commission.

ix) With respect to power purchase cost, CSPDCL should submit:
a) CSPDCL should submit the power purchase from each source as shown in the attached format R4 for FY11 and for Apr-Dec 2011.
b) CSPDCL should submit separately the quantum and amount of power purchased from/sold to CSPTrCL, any transmission losses shared with the CSPTrCL for FY11 and Apr-Dec 2011.
c) The rationale behind assuming cost of power from Korba West (Ext) at Rs 2.75/unit.
d) The rationale behind assuming cost of power from New CGS stations at Rs 2.50/unit.
e) CSPDCL is required to submit the power purchase bills of the three most recent months available for power procured from all stations.
f) CSPDCL should submit detailed calculations for the projected Power Purchase cost (component wise beak up – fixed cost, variable charges, and other cost) for each source of power along with supporting documents such as power purchase bills etc.

x) Regarding O&M expenses CSPDCL should submit:
a) The actual contribution to the pension fund made by the firm during FY 2010-11 and the projected payout to the pension fund during FY 2011-12 and FY 2012-13.
b) The amount of O&M expenditure capitalized during FY 2010-11 and the projected capitalization during FY 2011-12 and FY 2012-13.

xi) CSPDCL should submit the actual provision for ‘bad and doubtful debts made by the licensee in its annual accounts for FY 2010-11. It should also submit the actual debts written off for the year.

xii) CSPDCL should explain the reasons behind the decline in non-tariff income from Rs 235 Cr in FY 2009-10 to Rs 141 Cr in FY 2010-11.

xiii) Details of any subsidy (revenue or capital) available to CSPDCL from Govt. of Chhattisgarh should be submitted. The details should include the actual support received from the Govt. for FY 2010-11

xiv) CSPDCL should submit the actual capital expenditure on each scheme during Apr-Dec 2011 and the realistic estimate of the expected capex on various schemes during FY 2011-12 and FY 2012-13.

xv) CSPDCL should submit the details of depreciation on assets added during FY 2010-11.

xvi) CSPDCL should submit the expected revenue receipts in FY 2011-12 in Format R12 and R13, separately for Apr-Dec 2011 (actual) and Jan-Mar 2012 (projected), along with any assumptions and detailed calculations.

xvii) CSPDCL should provide the Report Regarding Segregation of Revenues between CSPDCL and Trading Co and status of acceptance of the report by BoD. Has such a report been prepared for FY 2010-11? If yes, then the same should be submitted to the Commission.

xviii) CSPDCL has proposed to introduce Telescopic tariff for the domestic category. CSPDCL should submit the impact of the same on the estimated revenue for FY 2012-13. All the supporting calculations/assumptions etc should also be submitted.

xix) CSPDCL should submit the net inter-state income from trading of power (bilateral and on the energy exchanges) for the year 2010-11 and for Apr-Dec 2011 for CSPDCL.

Brief note on Public Hearing

6.7 CSPDCL issued public notice in the leading newspapers of the State inviting suggestions/comments/objections from the public on this Petition for provisional true up of FY 2010-11, APR for FY 2011-12, revision of ARR for FY 2012-13 and retail tariff for FY 2012-13 on November 30, 2011. The Commission held the common public hearings for petitions filed by all three successor companies during the period February 22- March 03, 2012 in Jagdalpur, Ambikapur, Bilaspur and Raipur. All the suggestions/comments/objections made by the public in writing or during the hearing have been summarized and presented in Chapter 2 of this order.

Truing up for period prior to Control Period

6.8 The Commission has carried out the final truing up for FY 2005-06 and FY 2006-07 & provisional true up for FY 2008-09 (upto Dec 2008) for the erstwhile CSEB and for FY 2008-09 (Jan-March 09) and FY 2009-10 for the successor companies in the MYT Order dated March 31, 2011. The revenue surplus/deficit on account of truing up for past years for CSEB upto FY 2008-09 has been allocated to the three successor companies. The revenue surplus/deficit on account of truing up for FY 2009-10 for CSPDCL has also been added. The approved net revenue surplus from truing up for past years is Rs 988 Cr (as approved in the MYT Order) for CSPDCL which has been adjusted while determining ARR for future years.

6.9 In its previous tariff order, the Commission has carried out final truing up of the ARR for FY 2005-06 and FY 2006-07 for which statutory audit was reported to be completed by the Accountant General (Audit) (AG Audit, for short). In the present petition, none of the companies have submitted proposal for final true up of the FY 2007-08 and onwards. During the technical validation sessions, the Commission was informed that since the AG Audit report in respect of FY 2007-08 and onwards was not received, hence, proposal for final true up for FY 2007-08 and onwards has not been submitted by the power companies in their petitions. The issue regarding AG Audit reports was raised by various stake holders during public hearings held on March 2, 2012 and March 3, 2012. This issue was also raised by the members of State Advisory Committee during the meeting on March 13, 2012. A reference was made to power companies vide letter dated March 15, 2012 for informing the status regarding AG Audit report. In response, the Chhattisgarh State Power Holding Co. Ltd. (in short, CSPHCL) vide letter dated March 20, 2012 forwarded the copy of the Audited report (AG Report, for short) of Annual accounts of the erstwhile CSEB for FY 2007-08. It has also informed to the Commission that audit of accounts for the FY 2008-09 (up to Dec. 2008) of the erstwhile CSEB has also been completed by the AG (Audit); however the audit certificate is awaited. It has been noted by the Commission that the AG (Audit) has forwarded the copy of AG report of accounts for FY 2007-08 vide letter dated October 24, 2011 and same was received in the office of the Managing Director, CSPHCL on November 3, 2011. Therefore, taking serious view in the matter, the Commission has directed the power companies to look in to the matter and submit a report regarding non filing of final true up petition for FY 2007-08 up till now. In absence of the petitions for final truing up for FY 2007-08 and FY 2008-09, the Commission could not carry out the final true up for FY 2007-08 and FY 2008-09.

Provisional Truing up for FY 2010-11

6.10 This section contains a summary of the true up petition for the period FY 2010-11 as submitted by CSPDCL and the true up exercise on the basis of analysis/ observation by the Commission thereof.

6.11 Since the un-audited annual accounts of FY 2010-11 are under finalization, CSPDCL submitted petition for provisional truing-up of the ARR for the year based on the actual expenditure and income during FY 2010-11.

Energy Sales

6.12 CSPDCL submitted category wise sales for FY 2010-11 as shown in Table 117. It submitted that the lower actual sales in agriculture consumption can be attributed to good rainfall recorded during FY 2010-11. In case of domestic consumers, the actual sales has been lower than the approved sales primarily due to metering of BPL consumers which were earlier un-metered and the assessment of sales to this category was done based on the study report prepared by M/s SNC Lavalin.

6.13 It further submitted that the sales in EHV-2 and EHV-3 categories have declined due to consumers shifting to captive power plants. One of the major consumers i.e. Bhilai

Steel Plant (BSP) under the EHV-2 category has commissioned a new captive power plant due to which the sales in this category have reduced from 696 MU during FY 2009-10 to 411 MU in FY 2010-11.

Commission's View

6.14 CSPDCL informed the Commission that it has achieved 100% metering of its agriculture and BPL consumers in FY 2009-10. Given CSPDCL's submission that the reported sales are the metered value of sales, the Commission has not re-stated the agriculture and BPL sales.

6.15 The Commission noticed that CSPDCL had not shown any sales in the HV Temporary Supply Category. Certain discrepancies were also observed in the HV sales submitted in the petition and the HV sales submitted in Format R13 of the petition. The company was asked to reconcile the same. CSPDCL submitted that the sales to temporary consumers had also been included in the sales to the respective category and resubmitted the HV sales for the year showing separately the sales under HV Temporary Supply Category. Further, CSPDCL re-submitted the sales for HV categories after removing the discrepancies between sales recorded in Format R13 and sales submitted in the petition. The same have been considered by the Commission for the purpose of this Order.

Table 117: Category wise energy sales for FY 2010-11 (MU)

Consumer Categories		Approved in MYT Order	Submitted in the Petition	Approved in this Order
	LT Consumers			
LV-1	Domestic	2765	2690	2690
LV-2	Non Domestic	494	525	525
LV-3	Agriculture	1828	1600	1600
LV-4	Agriculture Allied Services	10	11	11
LV-5	LT Industrial	438	434	434
LV-6	Public Utilities (PWW and SL)	151	166	166
LV-7	Temporary	112	115	115
	Sub Total – LT	**5797**	**5541**	**5541**
EHV-1	Railway Traction	733	773	773
EHV-2	Heavy Industries	598	411	411
EHV-3	Steel Industries	268	207	207
EHV-4	Coal Mine, Cement & Other EHV Indust.	460	518	518
	Total EHV	**2059**	**1909**	**1909**
HV-1	Steel Industries	3219	3202	3202
HV-2	Coal Mines & Cement Ind.	266	279	279
HV-3.1	Other HT Ind 33 kV	415	451	451
HV-3.2	Other HT Ind 11 kV	24	25	25
HV-4.1	Low Load Factor Industries 33 kV	83	85	85
HV-4.2	Low Load Factor Industries 11 kV	1	0.40	0.40
HV-5.1	Residential Purpose 33 kV	233	247	247
HV-5.2	Residential Purpose 11 kV	4	4	4
HV-6.1	General Purpose Non Industrial 33 kV	267	220	219
HV-6.2	General Purpose Non Industrial 11 kV	78	72	70

Consumer Categories		Approved in MYT Order	Submitted in the Petition	Approved in this Order
HV-7.1	Public Water works & Irrigation 33 kV	26	31	30
HV-7.2	Public Water works & Irrigation 11 kV	16	14	14
HV-8	Start Power 132 kV	23	49	49
HV 9.1	Agricultural Allied Services 33 kV	3	8	8
HV 9.2	Agricultural Allied Services 11 kV	1	1	1
	Temporary Supply 33 kV	14		1
	Total HV	**4673**	**4688**	**4686**
	Grand Total	**12530**	**12138**	**12136**

Power Purchase Cost and Transmission Charges

6.16 CSPDCL purchases power from CSPGCL generating stations, Central Generating Stations and other sources such as Captive Power Plants, Bio-mass units and from Independent Power Producers, to meet the energy requirement of the State and submitted power purchase cost of Rs 2894 Cr for FY 2010-11 (net of UI income and power purchase rebate).

6.17 It has also submitted intra-state transmission charges of Rs 246 Cr, payable to CSPTCL, and inter-state transmission charges of Rs 109 Cr, payable to PGCIL. CSPDCL has thus submitted a total power purchase cost and transmission charges of Rs 3249 Cr for FY 2010-11.

6.18 During the technical validation session, CSPDCL was asked to submit source-wise detail of power purchase cost incurred by it in FY 2010-11 in Format R4 including the quantum, cost and rate of power procured by it from each CSPGCL generating stations, Central Generating Stations and each CPP, IPP and Biomass plant at both 33 kV and 132 kV. A summary of the submission made by the CSPDCL in the additional information is shown in the table below.

Table 118: Power Purchase Expenses for FY 2010-11 submitted by CSPDCL (Rs Cr)

Particular	Submitted in the Petition	Submitted in the Additional Information
State Sector Power Generating Unit	1836.99	1836.99
Central Sector Power Generating Unit	955.20	816.74
NSPCL	-	148.46
Power From Trading Co. & Others	192.57*	114.68
JSPL	212.51	212.49
Power from Biomass	191.51	200.12
Net UI Charges Received	-470.15	-470.15#
Rebate/discount in electricity charges	-25.41	-25.41#
Net Power Purchase Cost	**2893**	**2833.92**

**Power from trading & others also includes power from PTC India, WRLDC, OPTCL & western region transmission charges*
#As submitted in this Petition dated November 30, 2011

Commission's View

6.19 During the Technical Validation Sessions held in January 2012, the Commission pointed out to CSPDCL that –

(a) The total power purchase cost for FY 2010-11 as submitted in Format R4 in the additional information is lower than that submitted in the petition.

(b) Further CSPDCL has not submitted separately the power purchased from CPP/IPPs at 132 kV and at 33 kV.

(c) The actual quantum (in MUs) and income from UI/OD during FY 2010-11 has not been submitted.

6.20 CSPDCL was asked to re-submit the power purchase in the required format after removing these discrepancies. In its reply to the queries sent by the Commission CSPDCL has replied that –

"It is submitted that the R4 format could not be completed due to lack of information on segregation of units and amount from various sources in the prevailing accounting system. It is requested that the amount of power purchase can be considered as per the provisional accounts for FY 10-11 and units may be considered as submitted in petition."

6.21 CSPDCL was also asked to provide the basis of allocation of power purchase cost/transmission charges/revenues, if any, between CSPDCL and CSPTrCL for FY 2010-11. However, no such information has been provided by the petitioner. In its reply dated February 10, 2012 CSPDCL submitted that –

"A committee has been constituted for the preparation of the final allocation of power purchase cost/transmission charges/revenues between CSPDCL and CSPTrCL for FY 2010-11. Upon the preparation of the final report the same would be submitted to the Hon'ble Commission. At present the only available details have already been provided in the petition."

6.22 The Commission does not consider it prudent to simply consider the power purchase cost as per the provisional accounts of the petitioner, in absence of source wise breakup of the cost. Given the unavailability of detailed information in support of the power purchase cost by CSPDCL in its petition, the Commission is constrained to allow power purchase cost for the year on provisional basis only as per the detailed information made available by the petitioner in Format R4 in its submission dated January 23, 2012.

6.23 The Commission also noticed that CSPDCL has not considered any power purchase from Small Hydro Plant-Korba in the Format R4 submitted to the Commission while CSPGCL submitted that the generation from the plant was 5 MU during FY 2010-11. The Commission has additionally considered the power purchase from Small Hydro Plant-Korba (4.80 MU) as per the submission of CSPGCL. The power purchase cost for the same has been calculated at Rs 0.69 Cr at rate of Rs 1.44/kWh.

6.24 The Commission has also reduced the rebate on power purchase earned by it during FY 2010-11 (Rs 25 Cr) from the total power purchase cost.

6.25 The total power purchase cost for FY 2010-11 (excluding income from UI) has therefore been approved at Rs 3304.76 Cr or Rs 1.72/kWh.

6.26 The power purchase cost considered for FY 2010-11 is provisional and the same shall be trued up at the time of final truing up when adequate information is made available by the Petitioner.

Table 119: Power Purchase Expenses for FY 2010-11 (Rs Cr)

	Quantum of Power Purchase	Submitted in Petition	Submitted in Additional Information	Approved in this Order
	in MU	Rs Cr	Rs Cr	Rs Cr
CGS	4175	955.20	816.74	816.74
NSPCL	481		148.46	148.46
CSPGCL (including 33kV supply)	12764	1836.99	1836.99	1837.68
Biomass	510	191.51	200.12	200.12
CPP/IPPs	No information submitted			
JSPL	926	212.51	212.49	212.49
Others including CSPTrCL	382	192.57	114.68	114.68
Subtotal	**19239**	**3388.78**	**3329.48**	**3330.17**
Less: Power Purchase Rebate		25.41		25.41
Total Power Purchase Cost		**3363.37**		**3304.76**

UI Income

6.27 The Commission has also reduced the net inter-state and intra-state UI income of CSPDCL to arrive at the net power purchase of CSPDCL. In its tariff petition CSPDCL submitted that the total UI income for FY 2010-11 is Rs 470 Cr.

6.28 CSPDCL was asked to clarify whether this amount includes both inter-state UI income and intra-state UI income of the company for FY 2010-11. CSPDCL submitted that the income of Rs 470 Cr was on account of income received on account of inter-state UI claims.

6.29 Further, in its reply dated March 24, 2012 CSPDCL submitted the entire UI income could not be taken into account at the time of filing of the petition. As per the updated accounts, the actual total amount received by the company during FY 2010-11 as UI income was Rs 588.63 Cr out of which Rs 528.27 Cr was on account of the UI income for FY 2010-11 and the balance was on account of UI claims receivable for previous years. It has requested the UI income for the year be considered equal to the UI claims for FY 2010-11 i.e. Rs 528.27 Cr.

6.30 The Commission in its previous tariff order has considered the net UI income received by the petitioner during the year. The relevant extract of the tariff order is reproduced below:

"9.26 The Commission has also reduced the net UI income of CSPDCL as a part of the power purchase of CSPDCL. CSPDCL, in its petition, had submitted total revenue of Rs 837 Cr from inter-state sales and UI. During the technical validation session, CSPDCL submitted that this consisted of Rs 784 Cr as net income from UI and Rs 53 core as the income from bilateral sales.

9.27 In response to queries of the Commission and other petitioners, CSPDCL has also submitted that as per the energy accounting done by SLDC, CSPDCL should receive Rs 666 Cr from the inter-state UI pool and Rs 155 Cr from the intra-state pool, i.e. a total UI income of Rs 820 Cr for FY 2009-10. However, out of this only Rs 784 Cr was actually received during the year and the remaining amount is due to be received and will be considered as and when it is actually received.

9.28 The Commission has considered the actual amount received by CSPDCL during the year i.e. Rs 784 Cr as UI income of CSPDCL for FY 2009-10. However, the Commission directs CSPDCL to recover the balance amount due to it at earliest and the same will be considered by the Commission during the final true up for FY 2009- 10."

6.31 In accordance with the above methodology, the Commission has considered the actual UI income received by CSPDCL during the year i.e. Rs 588.63 Cr as the UI income for the year.

6.32 The net power purchase cost of CSPDCL calculated in this manner works out to be Rs 2716.13 Cr against Rs 2893 Cr as submitted by CSPDCL in its petition.

Table 120: Power Purchase Expenses for FY 2010-11 (Rs Cr)

	Submitted in Petition	Approved in this Order
Total Power Purchase	3388.78	3304.76
Less : UI Underdrawl	470	588.63
Net Power Purchase	**2893**	**2716.13**

Transmission Charges

6.33 The Commission has considered intra-state transmission charges at Rs 246.36 Cr as payable to CSPTCL. It has also considered inter-state state transmission charges payable to PGCIL at Rs 109.42 Cr, as submitted by CSPDCL.

Table 121: Approved Power Purchase Cost for FY 2010-11 (Rs Cr)

Source	Approved in MYT Order	Submitted in Petition	Approved in this Order
Power Purchase Cost	3,040.85	2893	2716.13
Inter-state Transmission	77.00	109	109.42
Intra-state Transmission Charges	246.36	246	246.36
Total Power Purchase and Transmission Charges	**3364.21**	**3249**	**3071.91**

Distribution Losses

6.34 CSPDCL submitted that it has computed the distribution losses for FY 2010-11 at 31.56% based on total energy input-output in the state and sales to LV, HV and EHV consumers in the state.

Table 122: Distribution Losses for FY 2010-11 as submitted by CSPDCL (MU)

Particulars		
Energy input from CSPGCL Station at 132 kV & above	A	12787
Energy Input from CPP/IPP at 132 kV & above	B	9292
Energy Input from CGS at Ex-WR	C	4173
Less Interstate Transmission Losses	D	231
Net Energy Input from CGS at Ex-CG	C-D=E	3942
Energy Input from Others (Traders, SWAPs) at EX-WR	F'	300
Energy Input from Others (Traders, SWAPs) at EX-CG	F	284
Total Energy Input	**A+B+E+F =G**	**26304**
Interstate Sales at Ex-WR including SWAP	H	3301
Add Interstate Transmission Loss	I	194
Interstate Sales at Ex-CG	H+I=K	3494
Open Access Exhanges at Ex-WR	L	2160
Add Interstate Transmission Losses	M	127
After Adjusting Interstate Losses	M'	2287
Add Intrastate Transmission Loss	N	112
Net Open Access Exchanges	L+M+N=O	2399
Export to DD+DNH	P	1873
Net UD	R	1423.5
Gross Energy Available for CSPDCL	G*-K-O-P-R=S	**17114**
EHV Sales	V	1953
EHV sales adjusted for transmission losses	V"	2044
Net energy available for CSPDCL after EHV sales	S-V"	15070
Intrastate Transmission Losses	T	704
Net Energy Available after Transmission Loss	V"-T=U	**14366**
Energy Input from CSPGCL Station at 33 kV	W	48
Energy Input from CPP/IPP at 33 kV	X	467
Net Energy Input at 33 kV	U+W+X=Y	**14881**
Energy Sales to LV	Z	5541
Energy Sales to HV	a	4644
Total Energy Sales to LV + HV	Z+a=b	**10185**
Distribution Losses (in MU)	Y-b=c	**4696**
Distribution Losses %	(c/Y)	**31.56%**
T & D Loss %	(S+W+X-V-b) / (S+W+X)	**31.15%**

Commission's View

6.35 The Commission has not considered the methodology adopted by CSPDCL in calculation of distribution losses in the 33 kV system during FY 2010-11.CSPDCL has considered hypothetical flow of power instead of actual flow to arrive at the distribution losses in the 33 kV system. Since the actual flow of power can only be recorded in a reliable manner by energy meters the Commission has considered metered data submitted by SLDC, CSPDCL and CSPTCL for calculating the distribution loss. The same has been summarized in below.

6.36 After due scrutiny of the information provided by the petitioner, SLDC and CSPTCL the Commission approves the distribution losses in the 33 kV system of CSPDCL at 33.24% against the approved losses of 34%.

Table 123: Distribution Losses for FY 2010-11 approved by the Commission (MU)

	Approved in MYT Order		Approved Distribution Loss
Energy delivered to DISCOM on 33 KV side of power		A	14742
Add: Energy Input from CSPGCL Station at 33 kV		B	48
Add: Energy Input from CPP/IPP at 33 kV		C	467
Energy Input at Distribution Periphery below EHV level (MU)		D= A+B+C	15257
Energy Sales to LV		E	5541
Energy Sales to HV		F	4644
Distribution Losses in the 33kV system (MU)		G = D – (E+F)	5072
Distribution Losses in the 33kV system (%)	**34%**	**H = (G*100)/ A+D**	**33.24%**

6.37 As per Regulation 5.3 of the CSERC MYT Regulations, 2010 distribution losses are classified as Controllable Items for a distribution licensee.

6.38 Further Regulation 5.6 to 5.9 of the CSERC MYT Regulations, 2010 provide the mechanism for sharing of gains/losses on account of the Controllable Items. The relevant extract of the Regulations is quoted below:

" … (c) The one-third amount of gain on account of better achievement in reference with the target set in tariff order for efficiency linked controllable items shall be retained by the generating company or the licensee as the case may be and reasonable portion of this amount should be used for funding the incentive scheme(s) for the employees for the purpose of improving performance of the respective company. Prior approval for use of above gain will be taken by the respective company from the Commission before making any expenditure from such gain so earned."

6.39 The total savings in power purchase cost due to reduction in distribution losses vis-à-vis the target has been calculated by the Commission by taking into account the approved total power purchase cost per unit for FY 2010-11 i.e. Rs 1.72/kWh and the calculated reduction in the quantum of power purchase due to better performance of the licensee with respect to distribution losses i.e. 175 MU. The same is shown in the table below:

Table 124: Gain on account of Distribution losses

	Units	
Actual Distribution Losses	%	33.24%
Energy Requirement @ Actual Distribution Losses (Refer Table 123)	MU	15257
Target Distribution Losses	%	34.00%
Power Purchase @ Target Distribution Losses	MU	15432
Savings in quantum of power purchase due to better performance	MU	175
Power purchase cost/unit	(Rs/kWh)	1.72
Total Savings in power purchase cost on account of reduction in distribution losses	Rs Cr	30.04
Licensee's Share in Gain on account of reduction in distribution losses	**Rs Cr**	**10.01**

6.40 The total savings on account of better performance with respect to distribution losses has been computed at Rs 30.04 Cr. As per the mechanism for sharing of gains (on account of performance on a controllable item) contained in the CSERC MYT Regulations, 2010, the licensee is entitled to retain one third of the total gain i.e. Rs 10.01 Cr. The Commission has accordingly considered Rs 10.01 Cr in the ARR of the licensee for FY 2010-11.

Operation and Maintenance Expenses

6.41 Operation and Maintenance expenses comprise following constituents:

(a) Employees Expenses includes the wages, pension & terminal benefits and other remunerations apart from salaries and allowances paid to the workforce;

(b) Repair and Maintenance (R&M) Expenses include all expenditure incurred on the maintenance and upkeep of assets; and

(c) Administrative and General Expenses include all expenditure incurred in operating a business such as rent, conveyance, telephone charges, etc.

6.42 CSPDCL submitted *employee expenses* for FY 2010-11 at Rs 615 Cr. It submitted that the increase in employee expenses over the level approved by the Commission has been on account of fresh recruitments and DA approved by the Central Government during the FY 2010-11.

6.43 In the additional information submitted to the Commission, CSPDCL has clarified that out of Rs 615 Cr submitted as the employee expense for FY 2010-11, Rs 132.64 Cr was account of the contribution to the pension fund.

6.44 CSPDCL submitted *A&G expenses* of Rs 81 Cr for FY 2010-11 against A&G expense of Rs 83 Cr approved by the Commission in the MYT order. During the technical validation sessions, A&G expenses for the year were revised at Rs 78.65 Cr as per the provisional annual accounts for the year.

6.45 CSPDCL submitted that the actual *R&M expenses* incurred during FY 2010-11 are 80 Cr against Rs 96 Cr as approved by the Commission in the MYT order, and are even lower than the actual expenses on this accord during FY 2009-10 i.e. Rs. 92 Cr. The reason for the lower expense was shortage of funds and material during the FY 2010-11.

6.46 The petitioner has thus submitted total O&M expenses for FY 2010-11 at Rs 775 Cr against the total approved O&M expenses of Rs 711 Cr.

Commission's View

6.47 The Commission in its MYT Order had approved Operation and Maintenance (O&M) expenses comprising of a. Employee costs; b. Repairs and Maintenance (R&M) expenses; and c. Administrative and General (A&G) costs.

6.48 The Commission in its MYT Order had estimated total *employee expenses* at Rs 409.65 Cr as employee expenses (excluding terminal benefits) by escalating the approved employee expenses for FY 2009-10 (excluding terminal benefits) by 5.72%.

6.49 The total *A&G expenses* had been approved at Rs 83.35 Cr for FY 2010-11 (including expenses towards meeting the cost of CSPHCL and the contribution to be made to the pension fund on behalf of CSPHCL) considering an escalation of 5% over the A&G expenses of FY 2009-10.

6.50 The Commission in its MYT Order had also approved the total *R&M expenses* at Rs 96.25 Cr for FY 2010-11 considering an escalation of 5% over the R&M expenses of FY 2009-10.

6.51 As per Regulation 5.3 of the CSERC MYT Regulations, 2010 the Operation and Maintenance expenses, including employee expenses, A&G expenses and R&M expenses are a controllable item. Regulation 13.3 of the said regulations also allows for truing up of expenses of the licensee on account of inflation.

6.52 In accordance with the CSERC MYT Regulations, 2010, the Commission has decided to revise the O&M expenses for FY 2010-11 to the extent of increase in inflation recorded for the year. The escalation factor considered for projection of O&M expenses by the Commission in the MYT Order i.e. 5.72% is equal to the weighted average increase (in the ratio 80:20) in Wholesale Price Index (WPI) and Consumer Price Index (CPI) between FY 2003-04 and FY 2008-09 (upto October 2008). The Commission has decided to revise escalation factor considering the actual inflation in FY 2010-11.

6.53 The average increase in WPI during FY 2010-11 was 9.56%, while the average increase in CPI during the year was 10.43%. The weighted average inflation rate considering increase in Wholesale Price Index (WPI) and Consumer Price Index (CPI) in the ratio 80:20 in FY 2010-11 is equal to 9.74%.

6.54 Accordingly, the Commission now approves the O&M expenses (excluding terminal liabilities) for FY 2010-11 at Rs 612.91 Cr against Rs 589.25 Cr approved in the MYT Order considering an escalation of 9.74% over the approved O&M expenses for

FY 2009-10. The summary of O&M expenses submitted by the petitioner and approved by the Commission is contained in Table 125.

Table 125: O&M Expenses (excluding Terminal Liabilities) for FY 2010-11 (Rs Cr)

	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Gain/ (Loss)
O&M Expenses excluding Terminal Liabilities	589.25	642.61	612.91	(29.70)

6.55 In accordance with the CSERC MYT Regulations 2010, the loss on account of the higher than approved employee expenses of Rs 612.91 Cr is to be borne by the licensee.

6.56 With regards to the payments on account of terminal benefits CSPDCL was asked to submit details of the actual contribution made by it to the pension fund during FY 2010-11. In its reply CSPDCL submitted that:

"The Hon'ble commission in the Tariff Order dated 31/03/2011 has allowed Rs.121.75 Crore towards contribution to Gratuity & Pension fund in respect of CSPDCL for FY 2010-11, 2011-12 & 2012-13. In addition to this CSPDCL has to discharge the liability of Rs 2.25 Crore towards its share in CSPHCL contribution to the pension fund trust for the abovementioned financial years. Thus, the total contribution of CSPDCL works-out to Rs.124 Crore during these years. However, in absence of approved amount of contribution to be made to the trust during FY 2010-11, CSPDCL has made a total contribution of Rs.132.64 Crore to the Pension Fund which exceeds the CSPDCL share of Rs 124 Crore by Rs.8.64 Crore. The excess provision so made during FY 2010-11 shall be adjusted from the contribution to be made during FY 2011-12."

Financial Year	Actual Contribution (Rs Cr)	Contribution as per tariff order	Excess/(Short) (Rs. Cr)
2010-11	132.64	124	8.64
2011-12	115.36	124	-8.64
2012-13	**124**	**124**	

6.57 In subsequent submissions to the Commission CSPDCL clarified that –

"The expenses of the Holding Company have been shown in A&G expense under the head 'contribution' in the provisional accounts of FY 2010-11. No expenses of Holding Company have been booked in the head Employee Expenses.

It is submitted that CSPHCL does not make direct contribution to Pension Fund , but its expenses are shared by the successor companies in the equity ratio as per Part-II, clause a(v) of Chhattisgarh State Electricity Board Transfer Scheme Rules, 2010 relating to "Function and Duties of Holding Co." However, during FY 2010-11 no contribution of CSPHCL had been discharged by CSPDCL towards pension fund and the same is being contributed as per schedule of CSPDCL in the year 2011-12".

6.58 The Commission in its previous tariff order had allowed Rs 200 Cr of contribution to be deposited by all successor companies in the Pension Fund annually during the control period. The relevant extract of the Commission's order is quoted below:

"14.125 In view of this, the Commission approves a total amount of Rs 200 Cr to be deposited by all successor companies in the Pension Fund annually during the control period. The Commission directs the utilities to manage the Fund in a judicious manner so as to maximise the returns from it. Since the Fund has been created for a special purpose, the Commission is of the view that the contribution to Pension Fund allowed to the utilities in the ARR should be deposited to the Fund without fail in 12 monthly instalments. The utilities are also directed to submit a quarterly report in the matter to the Commission.

14.126 The Commission would also like to make it clear that the utilities shall not be allowed to claim an incentive (as per the incentive framework for controllable items outlined in the CSERC MYT Regulations, 2010) on account of underutilisation of amount approved for contribution to the Pension Fund.

14.127 The total allowed contribution to the Pension Fund has been distributed among the three companies in the ratio of the number of employees of each company during FY 2009-10. Accordingly, the Commission has allowed Rs 121.75 Cr as payment to Pension Fund during each year of the MYT control period for CSPDCL."

6.59 Further vide the clarification issued on September 23, 2011 the Commission has clarified that each company must also discharge the liability towards its share in contribution to the pension fund on behalf of CSPHCL (which works out to be Rs 2.25 Cr for CSPDCL for FY 2010-11). Each company had been allowed expenses towards meeting the cost of CSPHCL, including the contribution to be made to the pension fund on behalf of CSPHCL, in the A&G expenses provided to the company.

6.60 The Commission now approves Rs 121.75 Cr towards contribution to the Pension Fund in the employee expenses in each year of the Control Period as was approved in the MYT Order. The contribution made by CSPDCL in excess of Rs 121.75 Cr towards the Pension Fund during the year may be adjusted in its contribution to the pension fund in FY 2011-12 such that the total contribution to pension fund for the two years is equal to Rs 243.50 Cr (Rs 121.75 Cr + Rs 121.75 Cr). As had been stated by the Commission in its MYT Order, the gain/loss on account of amount approved for contribution to the Pension Fund has not been considered for calculation of the 'net gain/loss' on account of controllable items.

6.61 The summary of total approved O&M expenses for FY 2010-11 is contained in Table 126 below.

Table 126: Total O&M Expenses for FY 2010-11 (Rs Cr)

	Approved in MYT Order	Submitted in the Petition	Approved in this Order
O&M Expenses excluding Terminal Liabilities	589.25	642.61	612.91
Contribution to Pension Fund	121.75	132.64	121.75
Total	**711.00**	**755**	**734.66**

Capital Expenditure and Capitalization

6.62 CSPDCL submitted that it has undertaken total capital expenditure of Rs 604.89 Cr in FY 2010-11 as against the approved capital expenditure of Rs. 1218.37 Cr in the

MYT Business Plan. Further, CSPDCL submitted the capitalization of assets at Rs 189 Cr during FY 2010-11.

Commission's View

6.63 The Commission in its MYT Order had approved capital expenditure of Rs 1218.37 Cr and capitalization of Rs 649.80 Cr for FY 2010-11.

6.64 With regards to the submission of the petitioner, the Commission observed that the capital expenditure and capitalization of assets (additions to GFA) for FY 2010-11 is only Rs 159.69 Cr and Rs 5.45 Cr respectively in the Provisional Accounts of the petitioner.

During the technical validation sessions, CSPDCL was asked to explain the reason for variation between amount of capital expenditure and capitalization in the petition and the provisional accounts. *CSPDCL submitted that the preparation of annual accounts for FY 10-11 is being carried out and the entries for capitalization of assets are still underway. Therefore it is submitted that the assets of Rs. 2218 Crs as per the Petition is correct and should be considered.*

6.65 The Commission asked CSPDCL to submit, for the total capitalization submitted by CSPDCL for FY 2010-11, the following details

a) Asset-wise details of the assets capitalized during the year;

b) Asset-wise calculation of depreciation during the year; and

c) Asset-wise A&G and employee expenses capitalized during the year.

6.66 However, these details were not made available by the Petitioner. The Commission is therefore constrained to consider the capitalization for FY 2010-11 at Rs 5.45 Cr in accordance with the provisional accounts submitted by the Petitioner. The same shall be trued up at the time of final truing up for FY 2010-11 based on the audited annual accounts of the petitioner, scheme wise details of capital expenditure and capitalization and other relevant information.

Table 127: Asset Capitalisation Schedule (Rs Cr)

	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Opening CWIP	932.97	1022	932.97
Additions during the Year	1,233.04	605	159.69
Conversion of CWIP into Asset	649.80	189	5.45
Closing CWIP	1,516.21	1438	1,087.21
Opening GFA	2,029.56	2030	2,029.56
Conversion of CWIP into Asset	649.80	189	5.45
Closing GFA	**2,679.36**	**2218**	**2,035.00**
% Conversion	30%	12%	0.50%

Interest & Finance Charges

6.67 CSPDCL submitted interest and finance charges of Rs 155 Cr including interest expenses on capital loans, consumer security deposits and working capital. Interest is lower than the approved amount due to lower drawl of fresh loans. Interest on working capital has been computed on normative basis as per the CSERC MYT Regulations, 2010.

Commission's View

6.68 The interest and finance charges for the licensee consists of:

(a) Interest on capital loans;

(b) Interest on security deposits; and

(c) Interest on working capital.

6.69 The Commission has calculated the interest on (normative) capital loan in accordance with the CSERC MYT Regulations, 2010. The said Regulations allow for interest on gross normative loan arrived on the basis of GFA less normative equity. For the purpose of calculating opening normative loan on April 1, 2010, the Commission has followed the approach as followed by it in the MYT Order. The Commission arrived at opening balance of normative equity for FY 2010-11 by assuming that opening GFA as on April 1, 2009 and the additions in GFA during FY 2009-10 is funded by equity to the extent of 30%.

6.70 The rate of interest on normative loan has been taken equal to the weighted average interest rate calculated on the basis of actual rate of interest on each loan (including bank charges of Rs 2 Cr) as submitted by the petitioner and the actual loan portfolio at the beginning of each year.

6.71 The Commission has calculated the interest on normative loan considering the average normative loan for the year and the weighted average interest rate for the year. The repayment for the year has been taken equal to the depreciation allowed during the year. The interest on normative loan approved by the Commission is shown in Table 128 below.

Table 128: Interest on Normative Loan (Rs Cr) Approved by the Commission

		Approved in MYT Order	Submitted in the Petition	Approved in this Order
Gross Normative loan – Opening	A	1272.28		1,272.28
Cumulative repayment of Normative Loan up to previous year	B	894.65		894.65
Net Normative loan – Opening	**C = A-B**	**377.63**		**377.63**
Increase/Decrease due to capitalization during the Year	D	382.06		3.53
Repayments of Normative Loan during the year	E	88.32		77.80
Net Normative loan – Closing	F= B+D-E	671.37		303.36
Average Normative Loan	(C+F)/2	524.50		340.50
Weighted average Rate of Interest		10.35%		9.37%
Interest on Normative loan		**54.30**	**29**	**31.90**

6.72 CSPDCL submitted interest on consumer security deposits at Rs 31 Cr for FY 2010-11 while the interest on consumer security deposit appears as Rs 24.95 Cr in its provisional accounts for the year. In the additional information submitted by CSPDCL the company clarified that –

"The difference appearing in the interest payable on consumer deposits amounting to Rs.6.42 crore (31.37-24.95) is primarily due to some accounting error of liability head carried forwarded from FY 09-10. The necessary rectification has duly been made in the final (audited) accounts of FY 09-10 and will automatically rectify the error appearing in provisional accounts of FY 10-11 during its finalization. Accordingly, Hon'ble Commission may consider the interest on security deposit Rs.31.37 Crore as per provisional P&L Account."

6.73 Accordingly the Commission has considered the interest on consumer security deposits at Rs 31 Cr for FY 2010-11 as submitted in the petition. The same shall however be trued up based on the audited accounts for the year.

6.74 The Commission has approved the interest on working capital on normative basis as per the provisions of the CSERC MYT Regulations, 2010. For the purpose of calculation of normative working capital, receivables equivalent to two months have been considered on the approved revenue. The Commission has also considered the approved O&M expenses (minus the Contribution to Pension Fund) for calculation of normative working capital.

6.75 In accordance with the CSERC MYT Regulations, 2010, the interest on working capital has been considered at normative interest rate of 11.75% which was the prevailing SBI Short term Prime Lending Rate as on April 1, 2010.

Table 129: Interest & Finance Expenses for FY 2010-11(Rs Cr)

Particulars	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Interest on Capital Loans	54.30	40	31.90
Interest on Working Capital	89.07	91	87.85
Interest on Consumer Security Deposit	30.33	34	31
Bank & Finance Charges	-	2	-
Total Interest Cost	**173.70**	**165**	**150.76**

Expenses Capitalised

6.76 CSPDCL submitted interest and O&M expenses capitalized at Rs 18 Cr against Rs 36 Cr approved in the MYT order for FY 2010-11.

Commission's View

6.77 The Commission has approved the capitalization for the year FY 2010-11 at Rs 5.45 Cr as per the provisional accounts of CSPDCL for the same year. Accordingly, the O&M expenses capitalized is approved at Rs 0.09 Cr as per the provisional accounts of CSPDCL for FY 2010-11.

Depreciation

6.78 CSPDCL submitted depreciation expenses of Rs 80 Cr for FY 2010-11. The Petitioner has computed the depreciation on assets after excluding depreciation on account of assets created from consumer contribution and grants

Commission's View

6.79 The Commission has considered the depreciation for FY 2010-11 in accordance with the CSERC MYT Regulations, 2010.

6.80 The Commission has considered the depreciation on assets added upto March 31, 2010 as approved in the MYT Order FY 2010-11. For addition in assets added during FY 2010-11, the Commission has considered approved capitalization for FY 2010-11 and the average depreciation rate approved in the MYT Order. The Commission has also reduced depreciation on account on additions in consumer contribution to arrive at the net depreciation for the year.

Table 130: Depreciation for FY 2010-11 (Rs Cr)

Particulars	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Gross Block as on 31.3.2010	2030	2030	2030
Assets added during the year	650	189	5.45
Gross Block as on 31.3.2011	2679	2218	2035
(A) Net Depreciation on assets added till 31.3.2010	**77.69**	**78**	**77.69**
(B) Depreciation on assets added during Control Period			
Opening Capital Base for Depreciation Calculation	0.00	0	0.00
Additional Capitalisation	649.80	189	5.45
Consumer Contribution capitalised during the year	245.93	94	1.03
Closing Capital Base for Depreciation Calculation	403.87	94	4.41
Average Capital Base for Depreciation Calculation	201.93	47	2.21
Net Depreciation on assets added during Control period	**10.63**	**2**	**0.12**
Total Depreciation on all assets added till the end of the year (A+B)	**88.32**	**80**	**77.80**

Return on Equity

6.81 CSPDCL submitted that it has considered a rate of return of 15.5% while computing the return on equity for CSPDCL during the Control Period. Further, in FY 2010-11, as CSPDCL has incurred losses, it will have no applicability of MAT. Therefore, an effective rate of 15.5% has been used for calculation of RoE.

Commission's View

6.82 The Commission has calculated return on equity as per the CSERC MYT Regulation, 2010. It has considered 30% of the opening GFA for FY 2009-10 as the opening equity base for RoE calculation. Consumer contributions or grants or subsidies towards GFA have been taken out while calculating the return on equity. Return on equity has also been considered on the approved additional capitalization during FY 2010-11.

6.83 Further, as per submission of the petitioner, in FY 2010-11, CSPDCL has incurred losses and therefore will have no applicability of MAT. Therefore, an effective rate of 15.5% has been used for calculation of return on equity.

Table 131: Submitted and Approved RoE for FY 2010-11 (Rs Cr)

	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Opening Equity Qualified for RoE calculation (Normative Equity: 30% of the Net Opening GFA)	545.26	545	545.26
Equity qualified for RoE Calculation due to Additional Capitalization	21.81	19	0.88
Closing Equity qualified for RoE calculation (Opening Equity + New Equity)	567.07	564	546.15
Average Equity during the period (Average of Opening and Closing Equity)	556.17	555	545.71
Rate of Return of Equity	15.50%	15.5%	15.50%
MAT Rate	19.93%	-	-
Pre Tax Rate of Return of Equity	19.36%	15.50%	15.50%
Reasonable Return	**107.66**	**86**	**84.58**

Provision for Bad and Doubtful Debts

6.84 CSPDCL submitted in its petition that as the accounts for the year are under finalization, provision for doubtful debtors is not available. Therefore, CSPDCL has considered 1% of the receivables for the purpose of determination of provision for bad and doubtful debts for FY 2010-11.

6.85 In subsequent submissions to the Commission CSPDCL submitted that it has made a provision of Rs.36.28 towards bad and doubtful debts for FY 2010-11 in its provisional accounts. However, no debt has been written off so far in account during the FY 2010-11.

Commission's View

6.86 In accordance with the CSERC MYT Regulations, 2010 the Commission may consider a provision for writing off of bad and doubtful debts of distribution licensee. A normative provision 1% of yearly revenue from the retail supply business may be allowed as bad and doubtful debt subject to actual writing off of bad and doubtful debts in the previous year.

6.87 The petitioner has made a provision of Rs 36.28 Cr of bad and doubtful debts for FY 2010-11 in its provisional accounts. The Commission recognizes that the accounts of the licensee are provisional and the actual writing off of the debt may occur at a later stage. The Commission has thus considered the provision made by CSPDCL in its accounts for approving the bad debts for the year.

Non Tariff Income (NTI) and income from STOA

6.88 CSPDCL submitted non tariff income including Interest on Staff Loans and Advance, income from Delayed Payment Surcharges and other income of Rs 141 Cr.

6.89 Apart from the non tariff income of Rs. 141 Cr, CSPDCL also received short-term open access (STOA) charges during FY 2010-11. It submitted that an amount of Rs 6

Cr has been received from inter-state open access consumer and Rs 19 Cr from intra-state open access consumers.

Commission's View

6.90 The Commission in its MYT Order had estimated the non tariff income for FY 2010-11 at Rs 247 Cr by escalating the non tariff income approved for FY 2009-10 (Rs 235 Cr) by 5% per annum.

6.91 The non tariff income reported by CSPDCL in its petition i.e. Rs 141 Cr is lower than the non tariff income estimated by the Commission for FY 2010-11 i.e. Rs 247 Cr. During the Technical Validation Sessions, the petitioner was asked to submit the actual NTI earned during the year and reasons for the decline in non tariff income.

6.92 In the additional submissions made to the Commission, CSPDCL submitted that the actual non tariff income during FY 2009-10, as per the audited accounts, is Rs 208.49 Cr against Rs 235 Cr as reported in its earlier tariff petition. Further, the non tariff income for FY 2010-11 as per the finalized accounts of the year is Rs 163.40 Cr which is higher than the NTI reported in the petition.

6.93 CSPDCL submitted that non tariff income includes some regular and constant income and some incidental income on account of which the aggregate quantum of non tariff income varies substantially across the years. CSPDCL has further submitted that the income on account of rebate on power purchase (Rs 25 Cr), which was earlier included in the non tariff income for the respective year has been reduced from the power purchase cost and has not been considered in the NTI for FY 2010-11.

6.94 Since NTI is an uncontrollable expense the Commission approves the non tariff income for the year at Rs 163.40 Cr as submitted by the petitioner. The income on account of rebate on power purchase cost, which was included in non-tariff income in FY 2009-10, has been reduced from the power purchase cost for FY 2010-11.

6.95 The Commission has also considered income from STOA at Rs 25 Cr as submitted by the petitioner in its petition.

Table 132: Submitted and Approved Non-Tariff Income (NTI) and income from STOA for FY 2010-11 (Rs Cr)

	Approved in MYT Order	Submitted in the Petition	Submitted in the Additional Information	Approved in this Order
Non-Tariff Income	246.56	141	163.40*	163.40*
Income from STOA	49.18	25	-	25.00
Total	**295.74**	**166**	**-**	**213.40**

**Excluding rebate on power purchase*

Revenue from Sale of Power

Revenue from Retail Sales

6.96 CSPDCL submitted revenue from sale of power at Rs 3628 Cr to LV, HV and EHV consumers against revenue of Rs 3723 Cr approved by the Commission in MYT Order for FY 2010-11 as summarised in the table below.

Table 133: Revenue from Energy sales to LV, HV & EHV Category

Category	Amount (Rs Cr)
HV & EHV	2496
LV	1132
Total	**3628**

Commission's View

6.97 During the technical validation sessions, the Commission asked CSPDCL to submit category-wise revenue from retail sales for FY 2010-11 in the format R12 and R13 prescribed by the Commission. After scrutiny of format R12 and R13 submitted by the petitioner the Commission approves revenue from sale of power at Rs 3628 Cr. The same shall be trued up during the final true up for the year based upon the audited accounts of CSPDCL.

Annual Revenue Requirement (ARR)

6.98 The summary of ARR submitted by CSPDCL and approved by the Commission as per the analysis in this section is contained in Table 134 below.

Table 134: Submitted and Approved ARR for FY 2010-11 (Rs Cr)

	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Net Power Purchase Cost	3,041	2,893	2,716
Interstate Transmission Charges	77	109	109
Intra-State Transmission Charges	246	246	246
SLDC (SOC + MOC)	5		
O&M Expenses	711	775	735
Interest & Financial Charges	174	155	151
Less: Expenses Capitalized	36	18	0.09
Depreciation	88	80	78
Income Tax			
Provision For Bad Debts/ Other Debits	37	36	36
Total Expenses	**4,343**	**4,278**	**4,071**
Reasonable Return (ROE)	108	86	85
Less: Non Tariff Income and income from STOA	247	141	163
Less: Income from STOA	49	25	25
Licensee's Share in Gain on account of reduction in distribution losses			10
ARR	**4,155**	**4,197**	**3,978**

Revenue Surplus/Deficit

6.99 Based on above true up analysis, the revenue surplus/deficit as proposed by CSPDCL and approved by the Commission for FY 2010-11 has been summarized in the table below.

Table 135: Revenue Surplus/ deficit (Rs Cr) for FY 2010-11

Particulars	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Annual Revenue Requirement	4155	4197	**3,978**
Revenue from Sale of Power	3723	3628	3,628
Revenue Surplus/(Deficit) for the year (A)	**(432)**	**(569)**	**(350)**
Surplus/(Deficit) of Distribution carried forward from Previous Years* (B)	988	988	988
Surplus/(Deficit) at the end of the year (A+B)	**556**	**419**	**639**

**as approved in the MYT Order*

6.100 The approved revenue surplus of Rs 639 Cr for FY 2010-11 for CSPDCL has been carried forward while estimating the ARR and tariff for future years.

Revised Annual Revenue Requirement for FY 2011-12 and FY 2012-13

Category-wise Sales Forecast – LV Sales

A) Domestic Consumers

6.101 As per MYT Order dated 31 March 2011, from FY 2011-12 onwards, the Commission has approved discontinuation of a separate category for BPL consumers and has projected combined sales forecast for domestic category. However, CSPDCL has projected consumption for LV1 category separately for BPL and other domestic consumers for FY 2011-12 and FY 2012-13.

6.102 CSPDCL has a target of addition of approx. 3.8 lakhs BPL connections over the MYT control period. CSPDCL submitted that in FY 2010-11 it has provided a total of approx. 95,000 BPL connections. The balance of the BPL connections has been considered to be added during the remaining two years i.e. FY 2011-12 and FY 2012-13. For the purpose of projecting the sales to BPL consumers monthly consumption of these consumers has been assumed at 30 units per connection.

6.103 Based on the above assumptions, CSPDCL had projected BPL sales at 441 MU and 493 MU for FY 2011-12 and FY 2012-13 respectively in its petition.

6.104 CSPDCL has projected sales to the Other Domestic Category considering a growth rate of 12% during FY 2011-12 and FY 2012-13. Accordingly, the sales projected to Other Domestic Category are 2478 MU and 2775 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.105 As noted in its MYT Order the Commission has decided to discontinue the separate category for BPL consumers from FY 2011-12 onwards. All domestic consumers including BPL card holders shall be provided a domestic connection. The consumers holding BPL card shall also be billed for all consumption at the rate specified by the Commission in this tariff order. Since there is only one tariff category for all domestic cosnumers, the Commission has decided to give a combined sales forecast for domestic consumers.

6.106 The sales to domestic consumers have increased at CAGR of approximately 14% over the last five years, 20% over the last three years but only 5% in FY 2010-11 over FY 2009-10. CSPDCL has projected an increase of approx. 9% and 12% in sales to domestic consumers in FY 2011-12 and FY 2012-13 respectively over the previous year.

6.107 The Commission has considered a growth rate of 10% for projection of sales to domestic consumers based on the long term growth trend in sales and the projections made by CSPDCL. The sales to the domestic category (including BPL) have thus been approved at 2959 MU and 3255 MU for FY 2011-12 and FY 2012-13 respectively.

B) Non-Domestic Consumers

6.108 CSPDCL has considered a conservative growth rate of 10% during FY 2011-12 and FY 2012-13. Based on the above assumptions, the projected energy consumption for Non-Domestic category has been projected as 577 MU and 635 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.109 The Non-Domestic category has recorded a 5-year CAGR of approximately 14%. The Commission believes that with the increased commercial activity in the state, the sales to this category are likely to increase at a high rate. It has thus projected sales for this category considering the 5 year CAGR of 14% against the growth rate of only 10% as assumed by CSPDCL and has accordingly projected sales for Non-Domestic category as 600 MU and 685 MU for FY 2011-12 and FY 2012-13 respectively.

C) Agriculture Consumers and Agriculture Allied Activities consumers

6.110 CSPDCL submitted that total agriculture consumers at end of FY 2010-11 were 2.44 lacs. CSPDCL plans to release 20,000 new connections each year during FY 2011-12 and FY 2012-13.

6.111 CSPDCL has made the following assumptions to forecast the sales in Agriculture category: a) an average load of 4 HP is considered for existing as well as new connections. b) An average consumption of 166 units/HP/month has been considered to estimate the consumption during FY 2011-12 and FY 2012-13.

6.112 Based on the above assumption, the sales projected for Agricultural consumers are 2030 MU and 2190 MU in FY 2011-12 and FY 2012-13 respectively.

6.113 Sales to the Agriculture Allied category have been projected considering a nominal growth rate of 10%.

Commission's View

6.114 Based on the information submitted by the petitioner in format R12, the Commission observes that the number of consumers in agriculture category increased by over

25,000 consumers in FY 2010-11 as opposed to the target of 10,000 consumers approved by the Commission in the MYT Order. Thus the petitioner's target of adding 20,000 connections during FY 2011-12 and FY 2012-13 seems to be reasonable and the same has been considered for projection of sales to this category.

6.115 However, the Commission observes that the average consumption of each consumer during FY 2010-11 was only 156 unit/HP/month and the average load of each consumer was 3.50 HP as opposed to the average consumption of 166 units/HP/month and average load of 4 HP assumed by the petitioner for projections.

6.116 During the Technical Validation Sessions the Commission asked the petitioner to submit the rationale for such an assumption. CSPDCL submitted that sales for agricultural consumers for period April 2011-November 2011 are 1193 MU whereas sales units for period April 2011-December 2011 are 1373.30 MU. Thus based on data till November, 2011, the agriculture consumption comes out to be 164/HP/month whereas based on data till December, 2011; the agriculture consumption comes out to be 168 units/HP/month.

6.117 Since agricultural consumption is seasonal in nature, the Commission considers it prudent to use the average sales for the entire year for projection of sales to consumers in this category. Thus it has considered the average consumption of each consumer as 156 unit/HP/month and the average load of each consumer as 3.50 HP, as observed in FY 2010-11, for projection of sales to agricultural consumers. Based on the above assumption, the sales projected for Agricultural consumers are projected at 1665 MU and 1796 MU in FY 2011-12 and FY 2012-13 respectively.

6.118 Sales to Agriculture Allied Services have been projected considering the nominal growth rate of 10% as considered by CSPDCL, which is 12 MU and 13 MU for FY 2011-12 and FY 2012-13 respectively.

D) LV Industrial Consumers

6.119 The LV industrial category has recorded a 5-year CAGR of 4% and CSPDCL has considered the same rate of growth for sales projection during the MYT control period. Based on the above assumptions, the sales projected in LV Industrial category are 451 MU and 469 MU in FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.120 The Commission considers the projections made by CSPDCL as reasonable and accepts the sales projected by CSPDCL for this category.

E) Public Utilities

6.121 The Public Utilities category comprising of street lights and public water works has recorded a 5-year CAGR of 8.8% and the same has been considered as the rate of growth for sales projection for the next 2 years. Based on the above assumptions, the sales for Public Utilities are projected as 180 MU and 196 MU in FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.122 The Commission considers the projections made by CSPDCL as reasonable and accepts the sales projected by CSPDCL for this category.

F) LV Temporary Supply

6.123 The temporary category has recorded a 5-year CAGR of -3.2%. However, the growth recorded in this category during the past three year and one year is 15% and 6.6%, respectively. Therefore, CSPDCL has considered a growth of 5% for projection of sales to this category for FY 2011-12 and FY 2012-13. The sales projected to LT Temporary category are 121 MU and 127 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.124 The Commission considers the projections made by CSPDCL as reasonable and accepts the sales projected by CSPDCL for this category.

Category-wise Sales Forecast – EHV Sales

A) EHV Railway Traction

6.125 CSPDCL has considered a growth rate of 4.6% for sales projection during the MYT control period and has projected sales for Railway Traction category as 809 MU and 846 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.126 The Commission has considered a growth rate of 5.8%, which is equal to the average rate of growth observed in the last three years in the category, for projection of sales to this category. Accordingly, the sales to this category have been projected as 817 MU and 864 MU for FY 2011-12 and FY 2012-13 respectively.

B) EHV Heavy Industries

6.127 CSPDCL submitted that in case of EHV-2 category sales have shown a declining trend specifically during the last three years. Sales have declined from 1831 MUs in FY 2008-09 to 411 MUs during FY 2010-11.

6.128 There were three consumers in this category last year- BALCO, Bhilai Steel Plant (BSP) and Essar Industries. During FY 2010-11, BSP has commissioned its own captive plant; hence load demand of BSP has reduced to half while ESSAR industries has already stopped its operation. Further, BALCO has also been taking load predominantly from its own captive plant resulting in reduced sales to BALCO.

6.129 A new consumer J.P.Cement has been added in this category at 132 kV during FY 2010-11. Sales to J.P.Cement have been 44 MU in FY 2010-11. While no further load growth is expected from existing consumers in this category a new application for load are pending which has been taken into account for projecting sales to this category.

Commission's View

6.130 In its MYT Order the Commission had made the tariff of EHV-2 category 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. Consequent to that order certain consumers have been recategorised from EHV-4 category to EHV-2 category in FY 2011-12.

6.131 On scrutiny of the information provided by the petitioner, the Commission observed that it has not taken into account the sales to the consumers recategorized from EHV-4 to EHV-2 category while projecting sales to this category. The Commission asked the petitioner to submit the details of consumers who have been migrated from EHV-4 to EHV-2 category and the sales to *all* the consumers in the category during FY 2011-12 (upto January 2012). The petitioner submitted that three consumers – M/s SECL, M/s Lafarge India Ltd and M/s Bhilai Jaypee Cement – have been migrated to EHV-2 category from EHV-4 category in FY 2011-12.

6.132 The Commission has considered the actual sales to *all* the consumers in the category during FY 2011-12 (upto January 2012) for projection of sales to this category. A nominal growth of 5% has been considered for projection of sales during FY 2012-13. Further, sales to new consumers have been submitted as per the submissions made by the petitioner.

6.133 The Commission has therefore estimated the sales of EHV Heavy Industry category at 814 MU and 957 MU for FY 2011-12 and FY 2012-13 respectively.

C) EHV Steel Industries

6.134 CSPDCL submitted that the steel industry has recorded a 5-year CAGR of 20%. However, since this category has been segregated from HV Steel Industries in the past, hence the CAGR is not representative of the current trend and CSPDCL has considered a nominal growth rate of 10%.

6.135 Further, CSPDCL has also projected sales for the new consumers/increase in load expected to be added based on applications received so far. A load factor of 0.5 and power factor of 0.9 is assumed to estimate the total energy requirement (in MU) for these new applications.

6.136 Based on the above assumptions, the sales projected in this category have been projected as 277 MU and 396 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.137 Based on the sales data submitted by CSPDCL it is clear that the 5-year CAGR of sales for both the EHV Steel Industries and HV Steel Industries has been greater than 20%. However, since this category has been segregated from HV Steel Industries in the past, hence the CAGR is not representative of the current trend. The Commission has considered a higher growth rate of 12% for projecting sales of existing consumers, which is equal to the rate of increase in sales in FY 2010-11 over FY 2009-10.

6.138 Further, the Commission also asked CSPDCL to submit the latest available data regarding the status of the new consumers that are expected to come in during the MYT control period and has assumed a load factor of 0.5 and power factor of 0.9 to estimate the total energy requirement (in MU) for these new applications.

6.139 Based on the above, the sales projections in this category are approved at 260 MU and 327 MU for FY 2011-12 and FY 2012-13 respectively.

D) EHV Coal Mines, Cement and Other Industries

6.140 CSPDCL submitted that EHV-4 comprising of Coal Mines, Cement and Others has recorded a five-year CAGR of 2.1%. CSPDCL has considered 4% growth rate for existing consumers on the actual sales for FY 2010-11 to project the sales for FY 2011-12 and FY 2012-13. Further, applications for new connection and load enhancement have also been considered for projecting the sales. CSPDCL has considered a load factor of 50% in case of the above mentioned new connections and load enhancement applicants for the purpose of sales projections.

6.141 Based on the above assumptions, the sales projected in this category are 621 MU and 756 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.142 The Commission has considered the average growth rate observed in the last 3 years in the category i.e. 7% for projection of sales from existing consumers.

6.143 In its MYT Order the Commission had made the tariff of EHV-2 category 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. Consequent to that order certain consumers have been recategorised from EHV-4 category to EHV-2 category in FY 2011-12.

6.144 On scrutiny of the information provided by the petitioner, the Commission observed that it has not taken into account the sales to the consumers recategorized from EHV-4 to EHV-2 category while projecting sales to this category. The Commission asked the petitioner to submit the details of consumers who have been migrated from EHV-4 to EHV-2 category and the sales to *all* the consumers in the category during FY 2011-12 (upto January 2012). The petitioner submitted that three consumers – M/s SECL, M/s Lafarge India Ltd and M/s Bhilai Jaypee Cement – have been migrated to EHV-2 category from EHV-4 category in FY 2011-12. The sales to these consumers have thus been considered in EHV-2 category and not EHV-4 category as had been considered by the petitioner; consequently the projected sales to this category are lower than the sales projected by CSPDCL.

6.145 Further, the Commission also asked CSPDCL to submit the latest available data regarding the status of new consumers that are expected to be added during the MYT control period. During the TVS, CSPDCL submitted that certain planned additions to the load have either been delayed or the load request indicated earlier has been decreased. The Commission has used this latest information regarding expected new load and has assumed a load factor of 0.5 and power factor of 0.9 to estimate the total energy requirement (in MU) for these new applications.

6.146 Based on the above assumptions, the sales projected to this category are 259 MU and 384 MU for FY 2011-12 and FY 2012-13 respectively.

Category-wise Sales Forecast – HV Sales

A) HV Steel Industries

6.147 The Steel Industries category has recorded a 5-year CAGR of 18.5%. However, CSPDCL has considered a growth rate of 10% for projecting the consumption for existing consumers in this category for FY 2011-12 and FY 2012-13. Additionally, increase in sales on account of load growth due to new consumer addition and enhancement of load of major consumers have been computed separately based on applications pending with CSPDCL and expected date of connection/ commencement of load drawl.

6.148 A load factor of 0.5 and power factor of 0.9 has been assumed to estimate the total energy requirement (in MU) from these applications for new connections/ load enhancements.

6.149 Based on the above assumptions, the sales projected in this category are 3733 MU and 4285 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.150 During the Technical Validation Sessions, the Commission discussed with the petitioner the status of the applications for new applications and load enhancement considered by the petitioner in its Petition. The representatives of the petitioner clarified that addition in load/load enhancement on account of certain consumers, though considered by CSPDCL in the petition, was unlikely to occur during FY 2011-12 and FY 2012-13. The Commission has considered the methodology used by CSPDCL and the latest for projection of addition in load/load enhancement to project the sales to this category. The estimated the sales for Steel Industries are 3698 MU and 4204 MU for FY 2011-12 and FY 2012-13 respectively.

B) HV Coal Mines & Cement Industries

6.151 CSPDCL submitted that the HV-2 category comprising of coal mine and cement industries has recorded a 5-year CAGR of 8.1%. The growth has been higher than 10% during the past two-three years. However, CSPDCL has considered the five-year CAGR of 8.1% for projecting the consumption of existing consumers in this category for FY 2011-12 and FY 2012-13. Additionally, increase in sales on account of load growth due to new consumer addition and enhancement of load of major consumers have been computed separately based on applications pending with CSPDCL and expected date of connection/ commencement of load drawl. A load factor of 50% and power factor of 0.9 has been assumed for estimating the sales for the new connections and load enhancement requests.

6.152 Based on the above assumptions, the sales projected in this category are 301 MU and 326 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.153 The Commission considers the projections made by CSPDCL as reasonable and has accepted the methodology for projection of sales for this category as proposed by CSPDCL. However, the Commission observed that CSPDCL had not included the sales on account of new consumers and addition in load in the projected sales. The Commission has considered sales for the category at 307 MU and 332 MU for FY 2011-12 and FY 2012-13 respectively after making this correction.

C) Other HV Industries

6.154 CSPDCL submitted that HV-3 category has recorded a 5-year CAGR of 3.2% at 33kV level and 12.3% at 11 kV. The one year increase in sales shows a higher growth of 11.8% and 19.3%, respectively. However, CSPDCL has considered growth rate of 3% and 12.3% for consumers at 33kV and 11kV, respectively for projecting the sales in this category for FY 2011-12 and FY 2012-13. Accordingly, it has estimated energy sales at 470 MU and 493 MU at 33kV, and 28 MU and 32 MU at 11kV for, FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.155 The Commission observes that there is no clear trend in the sales at 33 kV in this category. The sales to this category at 33 kV decreased in FY 2007-08 and FY 2009-10 but increased in FY 2008-09 and FY 2010-11. In absence of a clear long term trend in sales, the Commission has considered the year-on-year sales for projection of sales at 33kV. Sales at 11 kV have been projected as per the submission of the petitioner.

6.156 The projected sales for the category are 509 MU and 575 MU at 33kV, and 28 MU and 32 MU at 11kV for, FY 2011-12 and FY 2012-13 respectively.

D) Low Load Factor Industries

6.157 CSPDCL submitted that sales in the HV-4 category have recorded a five-year CAGR of 5.2% at 33kV level. However, the sales at the 11kV level are below 1 MUs and have witness a negative growth. Therefore, CSPDCL has considered a similar growth rate of 5.2% at 33kV and nil growth at 11kV for projecting the sales each sub-category for FY 2011-12 and FY 2012-13. The sales projected for Low Load Factor Industries are 89 MU and 94 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.158 The Commission observes that there is no clear long term trend in the sales at 33 kV in this category. The sales to this category were stagnant upto FY 2008-09, decreased in FY 2009-10 but have increased 8% in FY 2010-11 over FY 2009-10. In absence of a clear long term trend in sales, the Commission has considered the year-on-year sales for projection of sales at 33kV. Sales at 11 kV have been projected as per the submission of the petitioner.

6.159 The projected sales for the category are 93 MU and 103 MU at 33kV, and 0.40 MU and 0.40 MU at 11kV for, FY 2011-12 and FY 2012-13 respectively.

E) HV Residential Category

6.160 CSPDCL submitted that the sales for HV-4 category have recorded a 5-year CAGR of 1.2% at 33kV level and 1.1% at 11 kV level. However, sales in the last year i.e. FY 2010-11 grew at 11.2% and 5.6% in the respective categories. CSPDCL has considered a growth rate of 5% at 33kV and 11kV. It has projected sales (in MU) for HT Residential Category as 259 MU and 272 MU at 33kV, and 4 MU and 5 MU at 11kV for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.161 The Commission observes that there is no clear long term trend in the sales in this category. The Commission has considered the year-on-year growth rate observed in each sub category i.e. 11.2% and 5% at 33 kV and 11 kV respectively during FY 2010-11 for projection of sales to this category. It has projected sales (in MU) for HT Residential Category as 275 MU and 305 MU at 33kV, and 4 MU and 5 MU at 11kV for FY 2011-12 and FY 2012-13 respectively.

F) HV General Purpose Non Industrial

6.162 CSPDCL submitted that the sales in the HV-4 category have recorded a 5-year CAGR of 15.5 % at 33kV level and 13.8 % at 11 kV level. However, the growth witnessed during FY 2010-11 was 2.7% and 8.1%, respectively. The load in this category consists of shopping complexes and malls. There has been a decline in application of new connections in this category and some of the applications for new connections have also been cancelled. Therefore, considering the economic slowdown which is impacting the sales growth in this category CSPDCL has considered a reasonable growth rate of 3% at 33kV and 10% at 11kV level for projecting sales in this category for FY 2011-12 and FY 2012-13.

6.163 Further, application for new connections and request for load enhancement have been considering while projecting the sales. A load factor of 50% and power factor of 0.9 has been assumed to estimate the total energy requirement (in MU) from these applications.

6.164 Accordingly, CSPDCL has estimated energy sales as 226 MU and 233 MU at 33kV level and 80 MU and 88 MU at 11 kV level for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.165 The Commission considers the projections made by CSPDCL as reasonable and has accepted the methodology for projection of sales for this category as proposed by CSPDCL. However, the Commission observes that CSPDCL has not included the sales on account of new consumers and addition in load in the projected sales. The Commission has considered sales for the category as 226 MU and 233 MU at 33kV level and 135 MU and 235 MU at 11 kV level for FY 2011-12 and FY 2012-13 respectively after making this correction.

G) Public Water Works and Irrigation

6.166 CSPDCL submitted that HV-7 category has recorded a five-year CAGR of 4.3% at 33kV level and 6.7% at 11 kV level. CSPDCL has considered the same growth for projecting the sales for FY 2011-12 and FY 2012-13 for the category. Accordingly, CSPDCL has estimated energy sales as 89 MU and 120 MU at 33kV and 15 MU and 16 MU at 11kV for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.167 The Commission considers the projections made by CSPDCL as reasonable and has accepted the methodology for sales projection proposed by CSPDCL for this category. However, the Commission notes that CSPDCL has erroneously submitted the sales at 33 kV as 89 MU and 120 MU for FY 2011-12 and FY 2012-13 instead of 32 MU and 33 MU respectively. The sales for this category have thus been projection after making this correction.

H) Start Up Power

6.168 CSPDCL submitted that since the consumption in this category has been erratic and has not followed any trend, a nominal growth of 5% over the actual sales of FY 2010-11 has been applied for projecting the consumption. The sales projected for HT Start Up Power are 52 MU and 54 MU for FY 2011-12 and FY 2012-13.

Commission's View

6.169 The Commission considers the projections made by CSPDCL as reasonable and has accepted the sales projected by CSPDCL for this category.

I) HV Agriculture Allied Services

6.170 CSPDCL submitted that since the category was introduced only in FY 2009-10, actual consumption in this category is available only for two years. Thus it has assumed that the consumption will grow at a rate of 5% during the MYT control period. The projected sales for the category (including both 33 kV and 11 kV) are 9 MU and 10 MU in FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.171 The Commission considers the projections made by CSPDCL as reasonable and has accepted the sales projected by CSPDCL for this category.

J) HV Temporary Supply

6.172 Sales in the temporary category have been assumed same as approved by the Commission in its MYT Order.

Commission's View

6.173 The Commission has accepted the sales projected by CSPDCL for this category.

Overall Sales

6.174 The overall sales for FY 2011-12 and FY 2012-13 as submitted by the Petitioner and approved by the Commission is shown in the table below.

Table 136: Category-wise Sales (MUs)

Consumer Categories		FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
LV-1	Domestic	2979	2,919	2,959	3190	3,268	3,255
LV-2	Non Domestic	559	577	600	632	635	685
LV-3.1	Agriculture Metered	2,067	2,030	1,665	2,306	2,190	1,796
LV-4	Agriculture Allied	11	12	12	12	13	13
LV-5	LV Industrial	460	451	451	482	469	469
LV-6	Public Utilities	159	180	180	167	196	196
LV-7	Temporary	116	121	121	119	127	127
	Sub Total – LV	**6350**	**6290**	**5,989**	**6908**	**6898**	**6,542**
EHV-1	Railway Traction	771	809	817	811	846	864
EHV-2	Heavy Industries	661	411	814	738	514	957
EHV-3	Steel Industries	449	277	260	539	396	327
EHV-4	Coal Mine, Cement &	674	621	259	792	756	384
	Sub Total - EHV	**2555**	**2118**	**2,150**	**2880**	**2512**	**2,533**
HV-1	Steel Industries	3687	3733	3,698	4055	4285	4,204
HV-2	Coal Mines & Cement	287	301	307	301	326	332
HV-3.1	Other HT Industries	431	470	509	449	493	575
HV-3.2	Other HT Industries	28	28	28	32	32	32
HV-4.1	Low Load Factor	87	89	93	92	94	103
HV-4.2	Low Load Factor	1	0.40	0.40	1	0.40	0.40
HV-5.1	Residential Purpose	245	259	275	257	272	305
HV-5.2	Residential Purpose	4	4	4	4	5	5
HV-6.1	General Purpose Non Industrial	351	226	226	386	233	233
HV-6.2	General Purpose Non Industrial	85	80	135	94	88	235
HV-7.1	Public Water works & Irrigation	26	89	32	26	120	33
HV-7.2	Public Water works & Irrigation	16	15	15	17	16	16
HV-8	Start Up Power	23	52	52	23	54	54
HV 9.1	Agricultural Allied	4	8	8	5	9	9
HV 9.2	Agricultural Allied	1	1	1	1	2	1

Consumer Categories		FY 2011-12			FY 2012-13		
		Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
	Temporary Supply	9	9	9	9	9	9
	Temporary Supply	5	5	5	5	5	5
HV 10	Industries manufacturing equipments for renewable energy generation -**	--	--	--	-	-	-
	Sub Total – HV	**5290**	**5369**	**5,397**	**5758**	**6043**	**6,150**
	Grand Total	**14195**	**13756**	**13536**	**15546**	**15374**	**15,224**

**A new category in respect of industries related to manufacturing of equipments for power generation from renewable energy sources, in absence of reliable data, sales could not be assessed.

Distribution Losses

6.175 CSPDCL submitted that it has been able to reduce the losses in the 33 kV system to 31.56% as against the Commission approved loss level of 34.00% for FY 2010-11. For the purpose of projection of energy requirement, CSPDCL has considered a distribution loss of 31% and 29% for FY 2011-12 and FY 2012-13, respectively, considering the actual distribution losses of 31.56% attained by the utility in FY 2010-11.

6.176 However, CSPDCL submitted that any over/under achievement in the distribution loss with respect to the target of 32% and 30% for FY 2011-12 and FY 2012-13, respectively, as approved by the Commission in the MYT Order, should be allowed to the petitioner at the time of true-up for the respective year of the control period.

Commission's View

6.177 In its MYT Order, the Commission has set the target for distribution losses in the 33 kV system for FY 2011-12 and FY 2012-13 at 32% and 30% respectively. CSPDCL has submitted that considering the actual distribution losses of 31.56% attained by the utility in FY 2010-11 is lower than the target distribution losses for FY 2011-12 i.e. 32%, for the purpose of projection of power purchase cost it has considered distribution losses at 31% and 29% for FY 2011-12 and FY 2012-13, respectively.

6.178 The Commission has calculated the distribution losses for FY 2010-11 in the 33 kV system of CSPDCL at 33.24% as opposed to the 31.56% as submitted by CSPDCL in the tariff petition. (Details regarding distribution loss of 33.24% are given in paragraph 6.36).

6.179 Since the Commission has estimated the distribution loss level for FY 2010-11 at 33.24%, which is higher than target loss level for FY 2011-12, the Commission has considered the distribution losses for FY 2011-12 and FY 2012-13 as per the target approved for the petitioner in the MYT Order (i.e. 32% for FY 2011-12 and 30% for FY 2012-13) for projection of the quantum of power purchase in the respective year.

Energy Input Requirement

6.180 The projected Gross Energy Requirement for FY 2011-12 and FY 2012-13 as approved by the Commission in the MYT Order and as submitted by CSPDCL is given in table below.

6.181 The Commission has projected CSPDCL's Gross Energy Requirement based upon the projection of sales, and distribution and transmission losses approved for the respective year of the control period in the MYT Order.

6.182 The total input at 33 kV level has been considered equal to the energy purchased to meet the renewable purchase obligation of the licensee from the renewable power sources, including hydro, solar and biomass sources.

Table 137: Gross Energy Requirement of CSPDCL

Particulars			FY 2011-12			FY 2012-13		
			Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
LV Sales	MU	A	6350	6291	5989	6908	6898	6542
HV Sales	MU	B	5290	5371	5397	5758	6042	6150
Total Sales Below EHV Level	MU	C= A+B	11640	11662	11386	12666	12940	12691
Distribution Losses	%	D	32.00%	31.00%	32.00%	30.00%	29.00%	30.00%
Distribution Losses	MU	E= F-D	5478	5239	5358	5428	5285	5439
Energy Requirement at Distribution Periphery	MU	F=C/ (1-D)	17117	16901	16744	18094	18225	18131
(-)Input to distribution at 33 kV	MU	G	628	517	992	628	579	1188
Input required at Distribution Periphery	MU	H= F-G	16490	16385	15752	17467	17645	16943
Sales at EHV Level	MU	I	2555	2118	2150	2880	2512	2533
Input required at transmission Periphery above EHV Level	MU	J= I+H	19045	18502	17902	20347	20157	19475
Transmission Loss	%	K	4.57%	4.57%	4.57%	4.50%	4.50%	4.50%
Transmission Loss	MU	L= M-J	912	886	857	959	950	918
Net Energy required at Transmission Periphery	MU	M=I/ (1-K)	19957	19388	18759	21305	21107	20393
Inter-state Transmission Loss	**MU**	**N**			254			305
Gross Energy Required including input at 33 kV	**MU**	**O= M+G +N**	**20584**	**19905**	**20006**	**21933**	**21687**	**21886**

Energy Availability and Power Purchase from Long Term Sources

Sources of Power

6.183 CSPDCL has following existing primary sources of firm power on long term PPA basis, viz.,

- CSPGCL

- Central Generating Stations (CGS) including NTPC-SAIL Power Corporation Ltd. (NSPCL)
- Renewable Sources
- Jindal Steel and Power Ltd. (JSPL)

Power Purchase from CSPGCL

6.184 CSPGCL is the primary source of power for CSPDCL. It has installed capacity of 1924.7 MW, including thermal, hydro, small hydro and cogeneration plants.

6.185 For FY 2011-12, CSPDCL has considered the actual power received from CSPGCL during the first six months and projected power from balance six months. For FY 2012-13, CSPDCL has considered the approved quantum of power from CSPGCL.

6.186 Further, in its MYT Petition, CSPDCL had considered two upcoming generating stations of CSPGCL i.e. the Korba West (Ext) and Marwah. However, it has now submitted that it is expected that energy from 1X500 MW Korba West (Ext) would only be available during FY 2012-13 while the energy from Marwah generating station would not be available during FY 2012-13 due to delay in the commissioning of the plant. The petitioner has considered power from existing generating stations of CSPGCL for the full year and power from Korba West (Ext) from November, 2012 onwards.

6.187 It has accordingly projected in its petition 12071 MU and 13383 MU of power purchase at a total cost of Rs 2147 Cr and Rs 2640 Cr from CSPGCL for FY 2011-12 and FY 2012-13. In its subsequent submissions to the Commission, CSPDCL has revised the quantum and cost of energy expected to be available from CSPGCL stations in FY 2011-12 to 11471 MU and Rs 2202 Cr.

Commission's View

6.188 The Commission has estimated the total power purchase quantum from CSPGCL stations, including thermal, hydro and cogeneration stations, for FY 2011-12 by considering the actual generation by CSPGCL stations during April 2011 to February 2012. The power purchase cost for FY 2011-12 has been estimated considering the estimated generation from each station and the tariff approved by the Commission for CSPGCL stations for FY 2011-12.

6.189 For FY 2012-13 the quantum of power purchase from the thermal stations of CSPGCL has been estimated considering the average PLF of the stations in the previous years. Considering the part operation of DSPM generating station, the PLF for DSPM for the year has been estimated at 85% only in spite of better performance in previous years. The generation from hydro stations and co-generation plant of CSPGCL has been considered equal to the approved generation of these stations in the MYT Order.

6.190 The power purchase cost for FY 2012-13 has been estimated considering the estimated generation from each station and the tariff approved by the Commission for CSPGCL stations for FY 2012-13 in this tariff order.

6.191 With respect to the availability of power from new stations of CSPGCL – Korba West (Extn) and Marwa (Unit I and II), the Commission asked CSPGCL to provide the estimated date of synchronization and date of commercial operation of these stations. The expected date of commissioning provided by the CSPGCL is given in the table below.

Table 138: Capacity Allocation from New State Generating Stations considered by CSPDCL

Name of plant	Date of Synchronization	Date of Commercial Operation	Capacity allocation
Korba West (Extn)	Sep-2012	Nov-2012	500 MW
Marwa Unit I	Nov-2012	Jan-2013	500 MW
Marwa Unit II	Jan-2013	Mar-2013	500 MW

6.192 The Commission has considered the expected date of synchronization and date of commercial operation of the stations as per the submission of CSPGCL. The Commission has considered a PLF of 25% after synchronization and before the date of commercial operation of the stations and a PLF of 60% after date of commercial operation of the stations to estimate the energy available from these stations.

6.193 The provisional rate of power purchase from the new stations of CSPGCL has been considered as Rs 1.00/unit for power generated by these stations after synchronization and before the date of commercial operation of the station, and as Rs 2.40/unit (provisional) for power generated by these stations after the date of commercial operation.

Power Purchase from Central Generating Stations (CGS)

6.194 CSPDCL has a firm allocation of share of power from generating stations of NTPC and Nuclear Power Corporation (NPC) stations from both western and eastern region and also NSPCL.

6.195 For projecting the power availability from CGS stations for FY 2011-12, CSPDCL has considered actual six month energy available from CGS and projections for balance six months based on allocation of firm and infirm power from the western region generation stations (NTPC and NPCIL) as per the allocation specified by Western Regional Power Committee. For projecting the power availability for FY 2012-13, CSPDCL has considered allocation of firm and infirm power from the western region generation stations (NTPC and NPCIL) as per the WRPC current allocation.

6.196 Apart from the allocation from existing CGS, CSPDCL has considered allocation of power from new central generating stations. Power from these new generating stations has been considered during FY 2011-12 and FY 2012-13 as summarized below:

Table 139: Capacity Allocation from New Central Generating Stations considered by CSPDCL

Name of plant	Date of commissioning	Capacity allocation (MW)
Sipat STPS (Extn)	Oct-2011	104
Sipat STPS (Extn)	Jan-2012	104
Vindhyachal Stage IV	Nov-2012	63

6.197 Based on the above assumptions, CSPDCL has projected to purchase 5698 MU and 6681 MU of power from the CGS at a cost of Rs 1372 Cr and Rs 1624 Cr for FY 2011-12 and FY 2012-13.

Commission's View

6.198 The Commission has considered firm and infirm allocation of power from the existing CGS as per the submission of CSPDCL and as summarised in the table below.

Table 140: Capacity Available from existing Central Generating Stations as approved in this Order (MW)

S. No	Generation Station	FY 2011-12	FY 2012-13
Existing Stations			
1	Korba STPS	210	210
2	Tarapur (Unit 3&4)	48	48
3	Vindhyachal Stage III	105	105
4	Hirakud	2	2
5	Sipat STPS Stage II	158	158
6	Kahalgaon Stage II	30	30
7	Korba STPS (Unit 7)	150	150
8	NSPCL	50	50
	Total	**753**	**753**

6.199 The quantum of power available from each station for FY 2011-12 has been estimated on the basis of actual energy purchased from these stations between April 2011 and November 2011, and the estimation of energy available from these stations for the remaining four months (December 2011-March 2012). For FY 2012-13, the energy available from the existing CGS has been estimated considering the plant load factor observed during the last three years.

6.200 For the purpose of estimating the power purchase cost, during the technical validation sessions, the Commission asked CSPDCL to submit the actual power purchase cost from the stations during FY 2011-12 and the latest power purchase bills. The actual power purchase cost from April 2011 to November 2011 has been considered for estimating the power purchase cost for FY 2011-12. For the balance months i.e. December 2011 to March 2012 and for FY 2012-13, the power purchase cost from CGS has been considered based on CERC Orders and actual power purchase cost during FY 2011-12.

6.201 Each element of the power purchase cost i.e. fixed, variable, and other cost has been estimated for each generating station on the basis given below.

(a) Fixed cost for FY 2011-12 (December 2011-March 2012) and FY 2012-13 has been projected based on the orders issued for each generating station by CERC in line with the new CERC Regulations 2009-14.

(b) Variable cost from each NTPC generating stations for FY 2011-12 (December 2011-March 2012) and for FY 2012-13 have been projected based on the actual average variable cost per unit for November 2011 to February 2012.

(c) The Commission has projected other charges (Cess & ED) for FY 2011-12 and FY 2012-13 at similar level as per the recent bills issued by NTPC.

(d) For nuclear plant i.e. Tarapur Unit 3 & 4, single part tariff as per latest available bill has been considered for FY 2011-12 (December 2011-March 2012) and for FY 2012-13.

6.202 The average power purchase cost of existing NTPC stations considered for projection of power purchase cost of FY 2012-13 is given in the table below.

Table 141: Average Power Purchase Cost of Central Generating Stations (Rs/kWh)

S. No	Generation Station	MW	Average Cost (Rs/kWh)
Existing Stations			
1	Korba STPS	210	1.61
2	Tarapur (Unit 3&4)	48	2.73
3	Vindhyachal Stage III	105	2.62
4	Hirakud	2	0.76
5	Sipat STPS Stage II	158	2.41
6	Kahalgaon Stage II	30	3.71
7	Korba STPS (Unit 7)	150	2.19
8	NSPCL	50	4.42

6.203 Apart from the allocation from existing CGS, the Commission has also considered allocation of power from new central generating stations. Power from these new generating stations has been considered during FY 2011-12 and FY 2012-13 as summarized below. The average power purchase cost from new stations has been assumed equal to Rs 2.40/unit.

Table 142: Capacity Available from new Central Generating Stations (MW)

S. No.	Generation Station	Date of Commissioning	Approved	
			FY 2011-12	FY 2012-13
New Stations				
1	Sipat STPS (Ext Unit I)	Nov-11	104	104
2	Sipat STPS (Ext Unit	Dec-11	104	104
3	Vindhyachal Stage IV	Nov-12		63
	Total		**208**	**272**

Power Purchase from JSPL

6.204 CSPDCL submitted that the company had a long term PPA with M/s Jindal Steel and Power Limited (JSPL) for 150 MW of power. Since the PPA was valid up to October 2011, therefore, actual power available during first six months and one month projected power purchase was considered for estimating power availability from JSPL during FY 2011-12.

Commission's View

6.205 During the Technical Validation Sessions, the Commission asked CSPDCL to clarify the validity of its PPA with JSPL. It was pointed out to the company that while on Pg 49 of the petition it has been mentioned that the PPA with JSPL has been extended till June 2012, the same has been taken to be operational till Oct 2011 in calculating the power purchase cost. JSPL was also asked to submit a copy of the power purchase agreement signed with JSPL.

6.206 During the Technical Validation Session, CSPDCL clarified that the long term power purchase agreement between the company and JSPL expired in October 2011. It has also submitted that the agreement for short term power purchase from JSPL has been executed at the rate of Rs. 3.00 /unit for the year 2011-12 with validity upto June 2012.:-

6.207 The Commission has considered the energy available to CSPDCL from JSPL in FY 2011-12 through its long term PPA as per the actual energy supplied to CSPDCL upto October 2012 (as submitted by the Petitioner in format R4). The Commission has not considered any energy from JSPL through a long term PPA after October 2011 as the long term PPA is no longer operational.

6.208 The energy procured from JSPL under the new power purchase agreement for short term power purchase has been considered along with the energy procured from other short term sources.

Power Purchase from Renewable Sources

6.209 The Commission has also considered power purchase by CSPDCL from renewable sources including Biomass, Solar and small Hydel. CSPDCL is obligated to purchase energy from these sources as per the CSERC (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2011. The said regulation specifies the minimum quantum of energy that CSPDCL must buy from renewable sources as shown in the Table 143 below:

Table 143: Minimum quantum of electricity to be procured by Obligated Entity as percentage of total consumption

Year	Solar	Biomass	Other RE (Hydel, wind etc)	Total
2010-11	0.25%	3.75%	1.00%	5.00%
2011-12	0.25%	3.75%	1.25%	5.25%
2012-13	0.50%	3.75%	1.50%	5.75%

6.210 The quantum of power purchase from renewable sources has been taken as per the renewable purchase obligations as stated above. The total energy requirement on which the renewable purchase obligation has been applied has been taken equal to the sum of total LV sales, total HV sales, total EHV sales and distribution losses in the 33 kV system of the licensee.

6.211 The power purchase from biomass and small hydel stations of CSPGCL (already included in the power purchase from CSPGCL above) has also been considered while working out the quantum of power that CSPDCL is to procure the renewable sources.

6.212 For the purpose of projection of power purchase cost from renewable sources (other than renewable based generating stations of CSPGCL), the Commission has made the following assumptions –

(a) The weighted average rate of power purchase from Biomass generators has been considered at Rs 4/unit.

(b) The rate of power from solar energy has been taken as per CSERC Order of September 8, 2008. In its order the Commission has specified the rate of power payable by the distribution licensee (exclusive of the generation based incentive) from solar thermal as Rs 3.26/unit and from Solar PV as Rs 3.84/unit. For the purpose of projections sixty percent (60%) of power is assumed to come from solar thermal and 40% from solar PV (as has been projected in the National Solar Mission) and accordingly the rate of solar power has been considered as Rs 3.49/unit.

(c) The rate of power from small hydel sources has been considered equal to the weighted average rate (Rs 2.70/unit) approved by the Commission for small/mini micro hydel stations of CSPGCL in its MYT Order.

Demand Requirement, Energy Balancing and Short Term Power Purchase

6.213 CSPDCL submitted that since the power from CPP/ IPP is procured on short-term based on the energy demand in the state, firm allocation has not been considered from the CPP/ IPP. However, the deficit power to meet the demand (peak and off-peak) in the distribution area of CSPDCL has been considered to be sourced from CPP/ IPP and other short-term sources.

6.214 During FY 2011-12, CSPDCL has considered the actual power purchase from CPP/IPP and units overdrawn under UI has been considered for six months. For the balance six months, CSPDCL has considered the short-term energy quantum tied up with CPP/IPP for estimating the power availability from short-term sources.

6.215 For projecting the power required to be sourced from short-term sources for FY 2012-13, difference in firm allocation and demand has been computed for FY 2012-13. CSPDCL submitted that it has considered 20% of the deficit procured round the clock (RTC) while the balance shortage has been considered for 5 hours i.e. peak hours only.

6.216 Accordingly, CSPDCL has projected purchase of power from short term sources at 1841 MU and 1978 MU for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.217 The power available from long term sources of CSPDCL is insufficient to meet the peak demand of power in the state. The deficit power to meet the demand in the distribution area of CSPDCL has been considered to be sourced from CPP/IPPs and other short-term sources during both FY 2011-12 and FY 2012-13.

6.218 The Commission has forecasted average peak demand (restricted) for the entire year at 3000 MW and 3300 MW for FY 2011-12 and FY 2012-13 respectively. Considering the long term PPAs of CSPDCL and the supply available from CGS stations the total long term availability of power to CSPDCL is projected to be around 2182 MW and 2550 MW in FY 2011-12 and FY 2012-13 respectively. The availability of long term power is expected to increase in FY 2011-12 and FY 2012-13 due to additional power being available from new central and state generating stations to be commissioned during the year.

6.219 The Commission has considered that the power shall be contracted from short term sources to meet the demand. Thus the total requirement of power from short term sources is projected to be 1493 MU and 1369 MU for FY 2011-12 and FY 2012-13 respectively. The Commission has considered weighted average rate of Rs 3.00/unit for power to be procured from short term sources which is equal to average rate of power purchased from the short term sources by the petitioner in FY 2010-11.

6.220 The summary of the total quantum of power purchase and power purchase cost as submitted by the Petitioner and as approved by Commission is given in Table 144 andTable 145 below.

Energy Availability, Surplus Energy and Treatment of Surplus Energy

6.221 For calculating the total energy availability at transmission periphery, CSPDCL has inter-state transmission losses (PGCIL losses) on power purchase during FY 2011-12 and FY 2012-13 at 5.54%.

6.222 Based on the availability of power from various sources including CSPGCL, CGS, JSPL, renewable and other short term sources, the total energy availability, surplus power and net power purchase projected by CSPDCL is summarized in table below:

Table 144: Net Power Purchase Cost submitted by CSPDCL

Source	FY 2011-12			FY 2012-13		
	Purchase (MU)	Rate (Rs/kWh)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/kWh)	Amount (Rs Cr)
CSPGCL	12071	1.78	2147	13383	1.97	2640
CGS	5618	2.44	1372	6681	2.43	1624
JSPL	496	2.37	117	0		0
Biomass	517	3.98	205	579	4.00	232
Solar	34	5.66	19	77	5.83	45
Others	72	4.17	30	131	4.17	55
Short-term power	1269	2.94	373	1978	3.10	613
UI	572	3.40	195			

Source	FY 2011-12			FY 2012-13		
	Purchase (MU)	Rate (Rs/kWh)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/kWh)	Amount (Rs Cr)
Gross Power Purchase	**20156**	**2.21**	**4458**	**22831**	**2.28**	**5209**
Surplus Energy	645	3.25	210	919	3.25	299
Net Power Purchase	**19511**	**2.18**	**4249**	**21912**	**2.24**	**4911**

Commission's View

6.223 The Commission has observed that there is wide variation in peak demand on seasonal basis. Accordingly, CSPDCL will have to make short term arrangements to meet the demand. There will however be surplus energy available during some of the months during off peak hours.

6.224 For calculating the total energy availability at transmission periphery, the Commission has considered the inter-state transmission losses (PGCIL losses) on power purchase during FY 2011-12 and FY 2012-13 at 4.37% which is equal to the losses approved for Chhattisgarh in CERC Order dated June 29, 2011 with respect to the PoC rates and charges.

6.225 Based on the availability of power from various sources including CSPGCL, CGS, JSPL, renewable and other short term sources, the total energy availability, surplus power and net power purchase projected by CSPDCL is summarized in Table 145 below.

6.226 Considering the total energy requirement and energy availability, the total surplus energy that will be available for sale on power exchange or UI is estimated to be 476 MU and 1690 MU in FY 2011-12 and FY 2012-13 respectively. The availability of surplus power is estimated to have reduced significantly in FY 2011-12 due to the shutdown of the DSPM thermal plant of CSPGCL. However, the plant is expected to operate at a higher availability during FY 2012-13. The availability of power in FY 2012-13 is further expected to increase as power is projected to be available from new thermal stations at Marwa and Korba West (Ext) thermal power plants of CSPGCL during the year.

6.227 The Commission has considered an average UI rate of Rs 3.40/unit considering the UI rates observed during the first 9 months of FY 2011-12. The net power purchase cost approved by the Commission is shown in table below.

Table 145: Net Power Purchase Cost Approved by the Commission in this Order

Particulars	FY 2011-12			FY 2012-13		
	Purchase (MU)	Rate (Rs/kWh)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/kWh)	Amount (Rs Cr)
CGS Stations*	5821	2.43	1416.41	6968	2.38	1658.60
CSPGCL	11717	1.88	2204.98	14135	2.00	2829.78
JSPL (long term)	490	2.35	115.27	-		-
Hydel	205	2.70	55.16	260	2.70	70.10
Biomass	708	4.00	283.05	740	4.80	355.21
Solar	47	3.49	16.49	103	3.49	36.08
Purchase from Short-	1493	3.00	448.04	1369	3.00	410.77

Particulars	FY 2011-12			FY 2012-13		
	Purchase (MU)	Rate (Rs/kWh)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/kWh)	Amount (Rs Cr)
term						
Gross Power Purchase	**20482**	**2.22**	**4539.40**	**23575**	**2.27**	**5360.54**
Surplus energy sold	476	3.40	161.86	1690	3.40	574.56
Power Purchase Rebate (estimated)			25.41			25.41
Net Power Purchase Cost	**20006**	**2.18**	**4352.13**	**21886**	**2.18**	**4760.57**

*CGS power is the gross power purchase.

6.228 The power purchase cost estimated above by the Commission is on the basis of the estimated energy requirement and estimated per unit power purchase cost. The same shall however be trued up as per the actual cost incurred subject to prudence check by the Commission.

Merit order for purchase

6.229 For purchase of power at reasonable rates, it is necessary to adopt the merit order of purchase. The merit order of purchase is stipulated based on the variable cost of power purchase per unit, from individual sources. However, the energy to be purchased from non-conventional energy based plants is to be excluded from merit order purchase. Also, the power purchase from Nuclear Power Corporation (NPC) needs to be excluded from the merit order purchase, as the NPC stations cannot be backed down, and the energy has to be absorbed when it is generated. The details of power purchase by CSPDCL from different sources are discussed above. CSPDCL should optimize the power purchase cost by adopting the merit order purchase principles and should submit the modality to SLDC and the Commission.

Transmission Charges

6.230 Transmission charges payable to PGCIL are based on the total capacity allocation in the transmission network. CSPDCL submitted that due to recent adaption of revised methodology for charging of transmission cost (POC rates) by PGCIL, it is difficult to ascertain the inter-state transmission charges for FY 2011-12 and FY 2012-13. Therefore, CSPDCL has estimated the inter-state transmission charges for FY 2011-12 based on the actual transmission charges for FY 2010-11 and 20% increase has been provided in view of the allocation of power from new generating stations of NTPC. An escalation of 10% has been considered for FY 2012-13.

6.231 The intra-state transmission charges payable to CSPTCL and SLDC charges for FY 2011-12 and FY 2012-13 have been considered as approved by the Commission in the MYT Order. It has therefore considered the transmission charges at Rs 898 Cr and Rs 933 Cr for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.232 The Commission has considered the inter-state transmission charges for FY 2011-12 as per the actual transmission cost incurred by the petitioner upto February 2012 based on the PGCIL bills. The system of point of connection (POC) rates and charges was made applicable in July 2011. In order to take into account the impact of the same the Commission has considered the average transmission charges for the last six months i.e. September 2011 to February 2012 for projection of inter-state transmission charges for FY 2012-13.

6.233 The CSERC (Connectivity and Intra-State Open Access) Regulations, 2011 clearly state that

"The transmission charges for use of the intra-State transmission system shall be recovered from the long-term open access customers and the medium-term open access customers in accordance with terms and conditions of tariff specified by the Commission from time to time. These charges shall be as determined by the Commission under section 62(1) (b) of the Act, and shall be applicable as per the tariff order issued by the Commission from time to time. These charges shall be shared by the long-term open access customers and medium-term open access customers as per allotted capacity proportionately."

6.234 The Commission has thus considered that the intra-state transmission charges for the use of network of CSPTCL shall be recovered from CSPDCL as shown in the following table. The sharing of transmission charges by other medium term customers in the state shall be considered on monthly basis on the contracted (allotted) power for such users of CSPTCL network.

6.235 The intra-state transmission charges payable to CSPTCL and SLDC charges for FY 2011-12 and FY 2012-13 have thus been considered as approved by the Commission in this Order for CSPTCL and SLDC.

Table 146: Transmission Charges (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Inter-state Transmission Charges	77.00	144	120.82	77.00	159	124.48
Intra-state Transmission Charges	748.44	748	748.44	767.69	768	546.55
SLDC Charges recoverable from CSPDCL	5.50	6	5.50	6.29	6	6.48
Total Transmission and SLDC Charges	**830.94**	**898**	**874.76**	**850.98**	**933**	**677.51**

Operation and Maintenance Expenses

6.236 Operation and Maintenance expenses comprise following constituents:

(a) Employees Expenses includes the wages, pension & terminal benefits and other remunerations apart from salaries and allowances paid to the workforce;

(b) Repair and Maintenance (R&M) Expenses include all expenditure incurred on the maintenance and upkeep of assets; and

(c) Administrative and General Expenses include all expenditure incurred in operating a business such as rent, conveyance, telephone charges, etc.

6.237 CSPDCL submitted that the total *employee expenses* for FY 2010-11 are 615 Cr. For projecting the employee cost for FY 2011-12 and FY 2012-13, CSPDCL has considered an average increase of 9.5% considering the average increase in CPI for industrial workers for past five years.

6.238 With regards to the terminal benefits CSPDCL has considered Rs 121.75 Cr as payment to pension and gratuity fund during each year as had been approved by the Commission in the MYT Order. It has also requested the Commission to allow an additional contribution by CSPDCL to the Pension and Gratuity Trust equivalent to actual payment of pension and other terminal benefits to the employees of the company by the Trust so that the corpus of the fund may actually increase.

6.239 Based on these assumptions the employee expenses for FY 2011-12 and FY 2012-13 have been projected at Rs 662 Cr and Rs 713 Cr respectively.

6.240 CSPDCL submitted that the total *A&G expenses* of Rs. 81 Cr for FY 2010-11 was marginally lower from approved expense of Rs 83 Cr. CSPDCL submitted that the increase of 5% provided by the Commission in the MYT Order is insufficient to meet the A&G expense for FY 2011-12 and FY 2012-13.

6.241 CSPDCL has considered an escalation factor of 6.5% in line with the average increase in WPI in the past five years for projecting the A&G cost for FY 2011-12 and FY 2012-13.

6.242 CSPDCL submitted that the actual *R&M expenses* incurred by it during FY 2010-11 were 79.96 Cr, which are even lower than the actual expenses on this accord during FY 2009-10 i.e. Rs. 91.67 Crs. The reason for the lower expense was shortage of funds during the FY 2010-11. However, CSPDCL submitted that it plans to offset the backlog and to undertake extensive maintenance for replacement of worn out components and equipment in the distribution system so as to reduce the losses and breakdown. Therefore, the R&M expenses for the FY 2011-12 and FY 2012-13 are considered comparatively higher.

6.243 R&M expenses for FY 2011-12 have been projected at Rs 110 Cr. For projecting R&M expenses for FY 2012-13 CSPDCL has considered an escalation factor of 6.5% in line with the average increase in WPI in the past five years.

Commission's View

6.244 The Commission in its MYT Order had approved Operation and Maintenance (O&M) expenses comprising of a. Employee costs; b. Repairs and Maintenance (R&M) expenses; and c. Administrative and General (A&G) costs.

6.245 In its MYT Order, the Commission had approved employee expenses for the Control Period by considering an increase of 5.72% on the approved expenses for FY 2009-10. The Commission had approved the employee expenses (excluding terminal liabilities) for FY 2011-12 and FY 2012-13 at Rs 434.17 Cr and Rs 459.00 Cr respectively by considering the escalation rate of 5.72% on the approved employee expenses of FY 2010-11.

6.246 The Commission had approved A&G expenses for FY 2011-12 and FY 2012-13 by considering an increase of 5% on the approved expenses for FY 2010-11, in accordance with the submission made by the petitioner in its MYT petition.

6.247 The Commission had also approved R&M expenses for FY 2011-12 and FY 2012-13 by considering an increase of 5% on the approved expenses for FY 2010-11, in accordance with the submission made by the petitioner in its MYT petition.

6.248 For the purpose of this Order, the Commission has projected the O&M expenses (including employee costs, Repairs and Maintenance (R&M) expenses and Administrative and General (A&G) expenses but excluding terminal liabilities) for FY 2011-12 and FY 2012-13 by escalating the O&M expenses approved for FY 2010-11 in this Order by an escalation rate of 5.72%. Accordingly, the O&M expenses for FY 2010-11 and FY 2012-13 have been approved at Rs 647.97 Cr and Rs 685.03 Cr respectively against Rs 621.66 Cr and Rs 655.87 Cr respectively estimated in the MYT Order.

The escalation rate used for approving O&M expenses (excluding terminal liabilities) shall be trued up considering the inflation during the year as per the methodology adopted by the Commission while approving O&M expenses for FY 2010-11 in this tariff order.

Table 147: O&M Expenses (excluding Terminal Liabilities) (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
O&M Expenses excluding Terminal Liabilities	621.66	736	647.97	655.87	800	685.03

6.249 With regards to the terminal liabilities, the Commission in its previous tariff order had allowed Rs 200 Cr to be deposited by all successor companies in the Pension Fund annually during the control period. The relevant extract of the Commission's order is quoted below:

"14.125 In view of this, the Commission approves a total amount of Rs 200 Cr to be deposited by all successor companies in the Pension Fund annually during the control period. The Commission directs the utilities to manage the Fund in a judicious manner so as to maximise the returns from it. Since the Fund has been created for a special purpose, the Commission is of the view that the contribution to Pension Fund allowed to the utilities in the ARR should be deposited to the Fund without fail in 12 monthly instalments. The utilities are also directed to submit a quarterly report in the matter to the Commission.

14.126 The Commission would also like to make it clear that the utilities shall not be allowed to claim an incentive (as per the incentive framework for controllable items outlined in the CSERC MYT Regulations, 2010) on account of underutilisation of amount approved for contribution to the Pension Fund.

14.127 The total allowed contribution to the Pension Fund has been distributed among the three companies in the ratio of the number of employees of each company during FY 2009-10. Accordingly, the Commission has allowed Rs 121.75 Cr as payment to Pension Fund during each year of the MYT control period for CSPDCL."

6.250 Further vide the clarification issued on September 23, 2011; the Commission has clarified that each company must also discharge the liability towards its share in contribution to the pension fund on behalf of CSPHCL (which works out to be Rs 2.25 Cr for CSPDCL for FY 2010-11). Each company had been allowed expenses towards meeting the cost of CSPHCL, including the contribution to be made to the pension fund on behalf of CSPHCL, in the A&G expenses provided to the company.

6.251 The Commission now approves Rs 121.75 Cr towards contribution to the Pension Fund in the employee expenses in each year of the Control Period as was approved in the MYT Order. The contribution made by CSPDCL in excess of Rs 121.75 Cr towards the Pension Fund during FY 2010-11 may be adjusted in its contribution to the pension fund in FY 2011-12 such that the total contribution to pension fund for the two years is equal to Rs 243.50 Cr (Rs 121.75 Cr + Rs 121.75 Cr). As had been stated by the Commission in its MYT Order, the gain/loss on account of amount approved for contribution to the Pension Fund has not been considered for calculation of the 'net gain/loss' on account of controllable items.

Table 148: Total O&M Expenses (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
O&M Expenses excluding Terminal Liabilities	621.66	736	647.97	655.87	800	685.03
Contribution to Pension & Gratuity Fund	121.75	121.75	121.75	121.75	121.75	121.75
Total	**743.41**	**858**	**769.72**	**777.61**	**922**	**806.78**

Capital Expenditure and Capitalization

6.252 The Commission had approved a total capital expenditure layout of Rs 2781 Cr for the three-year MYT Control Period in its MYT Order. CSPDCL submitted that it has undertaken total capital expenditure of Rs 604.89 Cr in FY 2010-11 as against the approved capital expenditure of Rs. 1218.37 Cr. In its petition, CSPDCL further submitted that it would undertake the balance of the capital expenditure for FY 2010-11 during FY 2011-12 and FY 2012-13. Further, the funding of each of the schemes has been maintained as approved in the MYT Order and business plan.

6.253 For FY 2011-12 and FY 2012-13, CSPDCL has proposed a capitalization rate of 50% for fresh investment as well as for capital work in progress (CWIP).

Commission's View

6.254 The Commission in its MYT Order had approved a capital expenditure of Rs 1218.37 Cr, Rs 941.08 Cr and Rs 621.60 Cr during FY 2010-11, FY 2011-12 and FY 2012-13 respectively. The total estimated capital expenditure for the MYT control period had been approved at Rs 2781 Cr in the MYT Order.

6.255 During the Technical Validation Sessions the Commission asked CSPDCL to clarify the actual status of each capital investment scheme approved in the business plan and re-submit the estimate of capital expenditure to be incurred during FY 2011-12 and FY 2012-13 based on the latest status of work.

6.256 In the additional submissions made to the Commission, CSPDCL submitted the estimated capital expenditure during FY 2010-11 as Rs 604.89 Cr and the revised capital expenditure plan for FY 2011-12 as Rs 780.90 Cr and FY 2012-13 as Rs 1396.00 Cr. The total estimated capital expenditure for the MYT control period has been submitted at Rs 2781.00 Cr.

6.257 With regards to the submission of the petitioner, the Commission observed that the capital expenditure and capitalization of assets (additions to GFA) for FY 2010-11 is only Rs 159.69 Cr and Rs 5.45 Cr respectively in the Provisional Accounts of the petitioner. The same has been considered by the Commission for provisional truing up of expenses during FY 2010-11 (Refer paragraph 6.63-6.66).

6.258 The Commission has thus considered the capital expenditure for FY 2010-11 at Rs 159.69 Cr, the balance capital expenditure (Rs 604.89 – Rs 159.69 Cr), as submitted by the petitioner, has been considered during FY 2011-12 along with the capital expenditure submitted by the petitioner for FY 2011-12.

6.259 Further, on scrutiny of the information submitted by the petitioner, the Commission observed that the total expenditure (for FY 2010-11 to FY 2012-13) estimated by the petitioner for certain capital schemes is greater than the capital expenditure approved by the Commission under those schemes in the approved Business Plan.

6.260 The Commission is of the view that that the petitioner must make a detailed submission and take separate approval for all capital schemes (of value greater than Rs 5 Cr and being funded through debt and equity) not approved by the Commission in the Business Plan for the MYT Control Period.

6.261 Accordingly, for capital schemes which are funded out of debt and equity, the Commission has restricted the total capital expenditure for the scheme at the level approved in the MYT Business Plan. The capital expenditure for schemes funded through government grants has been approved as per the submissions made by the petitioner.

6.262 The capital expenditure for the schemes not approved in the Business Plan (and funded through debt and equity) may be approved by the Commission on submission of the DPR and other necessary information by the petitioner.

6.263 With respect to capitalization, considering the past performance of the petitioner, the Commission has considered the capitalization for the year FY 2011-12 and FY 2012-13 at 10% out of the opening CWIP and fresh investment for the year considering the past performance of the licensee. The asset capitalisation schedule approved by the Commission for FY 2011-12 and FY 2012-13 is shown in Table 150. The same shall be trued up as per the actual capitalization carried out by the petitioner during the year.

Table 149: Revised Business Plan for MYT Control Period (Rs Cr)

Name of scheme	Mode of Funding	Approved in MYT Order				Submitted in Additional Information				Approved in this Order			
		FY 2010-11	FY 2011-12	FY 2012-13	Total for MYT Period	FY 2010-11	FY 2011-12	FY 2012-13	Total for MYT Period	FY 2010-11	FY 2011-12	FY 2012-13	Total for MYT Period
RGGVY	Grant	427.32	238.18	0.00	665.51	246.99	217.00	360.00	823.99	65.20	398.79	360.00	823.99
R-APDRP Part A	Loan	132.55	18.90	0.00	151.45	7.90	10.90	100.00	118.80	2.09	16.71	100.00	118.80
R-APDRP Part B	Loan/ Equity	45.00	45.00	45.00	135.00	0.00	45.00	200.00	245.00		45.00	90.00	135.00
Electrification of Educational Institute & Health Center	Grant	125.00	100.00	100.00	325.00	0.00	10.00	25.00	35.00		10.00	25.00	35.00
RE Works (Other than RGGVY)	Grant	100.00	187.00	186.00	473.00	124.35	125.00	180.00	429.35	32.83	216.52	180.00	429.35
Atal Jyoti Yojana	Loan/ Equity	70.00	40.00	0.00	110.00	18.11	70.00	40.00	128.11	4.78	83.33	21.89	110.00
ST(N)	Loan/ Equity	80.00	80.00	80.00	240.00	50.07	80.00	120.00	250.07	13.22	116.85	109.93	240.00
ND	Loan/ Equity/ Grant	115.00	125.00	125.00	365.00	113.19	125.00	150.00	388.19	29.88	208.31	126.81	365.00
EITC	Loan/ Equity	24.00	8.00	4.00	36.00	2.89	8.00	26.00	36.89	0.76	10.13	25.11	36.00
Loss Reduction Schemes	Loan/ Equity	99.50	99.00	81.60	280.10	41.39	70.00	150.00	261.39	10.93	100.46	150.00	261.39
Civil Works	Loan/ Equity					0.00	20.00	20.00				-	-
Mukhya Mantri Shahri Vidyutikaran Yojana	Grant					0.00	0.00	25.00				25.00	25.00
Total		**1218.37**	**941.08**	**621.60**	**2781.00**	**604.89**	**780.90**	**1396.00**	**2781.00**	**159.69**	**1206.10**	**1213.74**	**2579.53**

Table 150: Asset Capitalisation Schedule (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Opening CWIP	1,516.21	1438	1,087.21	1,488.58	1312	2,063.98
Additions during the Year	964.75	1186	1,206.10	640.37	990	1,213.74
Conversion of CWIP into Asset during the Year	992.38	1312	229.33	851.58	1151	327.77
Closing CWIP	1,488.58	1312	2,063.98	1,277.37	1151	2,949.95
Opening GFA	2,679.36	2218	2,035.00	3,671.74	3531	2,264.34
Conversion of CWIP into Asset during the Year	992.38	1312	229.33	851.58	1151	327.77
Closing GFA	**3,671.74**	**3531**	**2,264.34**	**4,523.32**	**4682**	**2,592.11**
% Conversion	40%	50%	10%	40%	50%	10%

Interest and Finance Charges

Interest on Loan

6.264 CSPDCL submitted that for computation of interest charges on capital loans for FY 2011-12 and FY 2012-13, outstanding average balance at the end of FY 2010-11 have been considered for each of the loans and weighted average interest rate has been considered for each loan based on the actual interest paid during FY 2010-11.

6.265 In case of fresh loans undertaken during FY 2011-12 and FY 2012-13 for capital expenditure, the same has been considered to be funded from PFC/ REC and an interest rate of 12.50% has been considered on these fresh loans.

Commission's View

6.266 The Commission observes that the methodology adopted by CSPDCL is not in accordance with the CSERC MYT Regulations, 2010. The said regulations allow for interest on gross normative loan arrived on the basis of GFA less normative equity. For the purpose of calculating opening normative loan on April 1, 2010, the Commission first arrived at opening balance of normative equity by assuming that opening GFA as on April 1, 2009 and additions in GFA during FY 2009-10 is funded by equity to the extent of 30%.

6.267 The rate of interest on normative loan has been taken equal to the weighted average interest rate calculated on the basis of the actual loan portfolio at the beginning of each year. For purpose of calculating the weighted average interest rate, the Commission asked CSPDCL to submit details of the actual rate of interest applicable on existing loans at the end of FY 2010-11. CSPDCL submitted the interest on existing loans from different sources in format F10 of the petition which has been considered for revision in rates of interest on the existing loans.

6.268 The Commission has also considered a rate of 12.50% on the new loans to be drawn during FY 2011-12 and FY 2012-13 as per revision in rates of interest on loan by PFC and REC. Further, the opening balance of each loan has been considered as per the repayment schedule proposed by CSPDCL in format F10 of its tariff petition.

6.269 The Commission has calculated the interest on normative loan considering the average normative loan for the year and the weighted average interest rate for the year. The repayment for each year has been considered equal to the depreciation allowed during the year. The interest on normative loan approved by the Commission is shown in Table 151 below.

Table 151: Interest on Normative Loan (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Gross Normative loan – Opening	1,654.34		1,275.81	2,209.02		1,382.73
Cumulative repayment of Normative Loan up to previous year	982.97		972.45	1,097.30		1,053.61
Net Normative loan – Opening	671.37		303.36	1,111.72		329.12
Increase/Decrease due to ACE during the Year	554.68		106.92	505.21		140.04
Repayments of Normative Loan during the year	114.33		81.16	143.89		88.95
Net Normative loan – Closing	1,111.72		329.12	1,473.05		380.21
Average Normative Loan	891.55		316.24	1,292.38		354.67
Weighted average Rate of Interest	10.66%		9.52%	10.40%		11.12%
Interest on Normative loan	**95.07**	**69**	**30.12**	**134.36**	**121**	**39.45**

Interest on Security Deposit

6.270 CSPDCL submitted that the actual interest incurred on consumer security deposit in FY 2010-11 is Rs 31 Cr. For calculating interest on consumer security deposit in FY 2011-12 and FY 2012-13, the petitioner has assumed an addition of Rs. 60 Crs in consumer deposit during each year. Interest rate of 6% has been assumed for computing the interest on these deposits.

Commission's View

6.271 The Commission has considered the interest on consumer security deposit as projected by CSPDCL. The same shall be trued up as per the actual interest paid during the respective year.

Table 152: Interest on Security Deposit (Rs Cr)*

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Interest on Consumer Security Deposit	32.15	38	37.65	34.08	41	41.25

**the difference in the submitted and approved numbers for FY 2011-12 and FY 2012-13 is on account of rounding off*

Interest on Working Capital

6.272 CSPDCL has projected working capital requirement based on normative basis. The norms are as per the CSERC's MYT Regulations 2010. As per the CSERC MYT Regulations 2010 working capital of distribution licensee shall cover:

(a) Operation and maintenance expenses for one month;

(b) Maintenance spares @ 15 % of O& M expenses; and

(c) Receivables equivalent to two month's average revenue.

6.273 The receivables equivalent to two months have been calculated on the projected revenue (at existing tariff rates) during the MYT control period.

6.274 A rate of interest of 13.00% for FY 2011-12 and 14.75% for FY 2012-13 has been considered on the working capital requirement, being the SBI Prime Lending Rate as on 1st April of the respective year.

Commission's View

6.275 The Commission has approved the interest on working capital as per the provisions of the CSERC MYT Regulations 2010 as considered by the Petitioner. For the purpose of calculation of normative working capital, receivables equivalent to two months have been calculated on the approved projected revenue (at existing tariff rates) during the MYT control period. The Commission has also considered the approved O&M expenses (excluding the approved terminal benefits) for calculation of normative working capital.

6.276 A rate of interest of 11.75% for FY 2011-12 and FY 2012-13 has been considered on the working capital requirement as had been considered by the Commission in its previous tariff order.

6.277 The submitted and approved interest on working capital is shown in the Table 153 below.

Table 153: Interest on Working Capital (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
O&M Expenses (one month)		71	54.00		77	57.09
Maintenance Spares @ 15% of O&M expenses		129	97.20		138	102.75
Receivables equivalent to two months revenue		765	781.57		1,189	1033.64
Total Working Capital	**847.02**	**965**	**932.76**	**926.96**	**1,404**	**1193.48**
Rate of Interest	11.75%	13.00%	11.75%	11.75%	14.75%	11.75%
Interest on Working Capital	**99.52**	**125**	**109.60**	**108.92**	**207**	**140.23**

6.278 A summary of the interest and finance charges submitted by CSPDCL and approved by the Commission is shown in the Table 154 below.

Table 154: Interest and Finance Charges (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted	Approved in this Order	Approved in MYT Order	Submitted	Approved in this Order
Interest on Capital Loans	95.07	69	30.12	134.36	121	39.45
Interest on Working Capital	99.52	125	109.60	108.92	207	140.23
Interest on Security Deposit	32.15	38	37.65	34.08	41	41.25
Total	**226.75**	**232**	**177.37**	**277.36**	**369**	**220.94**

Expenses Capitalised

6.279 CSPDCL submitted capitalisation of interest at Rs 50 Cr and Rs 63 Cr for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.280 The Commission has estimated the capitalization of O&M expenses at 3% of the approved O&M expenses for the year. The same shall be trued up considering the actual expenses capitalized during the year. (Give justification for 3%)

Table 155: Expenses Capitalised (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Expenses Capitalized	45.97	50	23.09	42.09	63	24.20

Depreciation

6.281 CSPDCL submitted that it has calculated the depreciation on existing assets as per the rate approved by the Commission in CSERC MYT Regulations 2010. Further, the assets created from consumer contributions and grant has been taken out while calculating the depreciation on existing assets.

6.282 An average depreciation rate of 5.27% has been considered for the purpose of computation of depreciation for FY 2011-12 and FY 2012-13 as also approved by the Commission in the MYT Order.

Commission's View

6.283 The Commission has calculated the depreciation on existing assets as per the rate approved by the Commission in CSERC MYT Regulations 2010 and the approved capitalization for FY 2011-12 and FY 2012-13. Further, the assets created from consumer contributions and grant has been taken out while calculating the depreciation on existing assets.

6.284 An average depreciation rate of 5.27% has been considered by the Commission for the purpose of computation of depreciation for FY 2011-12 and FY 2012-13.

6.285 The Table 156 below gives the details of calculation of depreciation for the year.

Table 156: Depreciation (Rs Cr)

Particulars	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in MYT Order	Submitted in the Petition	Approved in MYT Order	Approved in MYT Order
Depreciation on Assets added till FY 2009-10						
Closing GFA FY 2009-10	2029.56		2029.56	2029.56		2029.56
Opening Consumer Contribution towards GFA	212.0		212.0	212.01		212.01
Depreciation on existing CSEB Assets apportioned to CSPDCL as on 1st January, 2008	71.66		71.66	71.29		71.29
Depreciation on new assets added during FY 2008-09 and FY 2009-10	14.8		14.8	14.78		14.78
Total Depreciation	86.4	87	86.4	86.07	81	86.07
Average Depreciation Rate on assets till 31.3.2010	4.26%	-	4.26%	4.24%	-	4.24%

Particulars	FY 2011-12 Approved in MYT Order	FY 2011-12 Submitted in the Petition	FY 2011-12 Approved in MYT Order	FY 2012-13 Submitted in the Petition	FY 2012-13 Approved in MYT Order	FY 2012-13 Approved in MYT Order
Less: Depreciation on account of Consumer Contribution	9.03	9	9.03	8.99	9	8.99
Net Depreciation	**77.41**	**78**	**77.41**	**77.08**	**77**	**77.08**

Particulars	FY 2011-12 Approved in MYT Order	FY 2011-12 Submitted in the Petition	FY 2011-12 Approved in this Order	FY 2012-13 Approved in MYT Order	FY 2012-13 Submitted in the Petition	FY 2012-13 Approved in this Order
Depreciation on Assets Capitalised during the Control Period						
Opening Capital Base for Depreciation Calculation	403.87	94	4.41	998.73	751	138.06
Additional Capitalisation	992.38	1,312	229.33	851.58	1,151	327.77
Consumer Contribution capitalised during the year	397.53	656	95.68	311.16	576	152.72
Closing Capital Base for Depreciation Calculation	998.73	751	138.06	1539.14	1,326	313.11
Average Capital Base for Depreciation Calculation	701.30	423	71.24	1,268.93	1,038	225.59
Weighted Average Depreciation Rate on assets till 31.3.2010	5.27%	5.27%	5.27%	5.27%	5.27%	5.27%
Net Depreciation	36.92	22	3.75	66.81	55	11.88
Total Depreciation on all assets added till the end of the year	**114.33**	**100**	**81.16**	**143.89**	**132**	**88.95**

Provision for Bad Debts

6.286 CSPDCL submitted that the CSERC MYT Regulations 2010 allow provision for bad and doubtful debts of the distribution licensee up to 1% of the receivables subject to actual writing off of bad and doubtful debts. CSPDCL submitted that it recalculated the provision for bad and doubtful debts on 1% of the revised receivables for FY 2011-12 and FY 2012-13

Commission's View

6.287 The CSERC MYT Regulations, 2010 allow provision of bad and doubtful debts of the distribution licensee up to 1% of the receivables. Accordingly, the Commission has allowed bad debts at 1% of the revenue from sale of power as approved by the Commission as shown in the table below.

Table 157: Provision for Bad Debts (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Provision For Bad Debts/ Other Debits	42.	46	46.89	46	70	52.78

Return on Equity

6.288 CSPDCL submitted that it has followed the same methodology as specified by the Commission in MYT order to calculate Return on Equity. The net GFA has been computed after reducing the assets created out of grants and consumer contribution. 30% normative equity has been considered on the net opening GFA. For FY 2011-12 and FY 2012-13, 50% assets additions has been considered from consumer contribution and grants while the balance 50% have been considered to be funded from debt and equity in the ratio of 80:20.

6.289 CSPDCL has considered an effective rate of 15.50% without grossing up for MAT rate. However, it has requested the Commission to approve pass through of any tax applicable on the petitioner at the end of the year based on actual.

Commission's View

6.290 The Commission has calculated return on equity in accordance with the provisions of CSERC MYT Regulations, 2010. It has considered 30% of the opening GFA for FY 2009-10 as the opening equity base for RoE calculation. Consumer contributions or grants or subsidies towards GFA have been taken out while calculating the RoE.

6.291 The Commission has calculated the additions to equity by considering approved capitalisation for the year, the contribution of grants in the additional capitalisation. The additional capitalisation, net of consumer contribution and grants, has been considered to be funded from debt and equity in the ratio of 80:20.

6.292 The Commission has considered the rate of return on equity at 15.50% without grossing up for MAT rate, as per the submission made by the petitioner. The Table 158 below shows the RoE approved by the Commission.

Table 158: Return on Equity (Rs Cr)

Particulars	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Opening GFA	2679.36	2218	2,035.00	3671.74	3531	2,264.34
Less: Consumer Contribution/grants towards	457.94	306	213.04	855.47	963	308.72

Particulars	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
GFA at beginning of the year						
Net Opening GFA	2221.42	1912	1,821.96	2816.27	2560	1,955.61
Opening Equity Qualified for RoE calculation (Normative Equity: 30% of the Net Opening GFA)	567.07	564	546.15	607.25	695	572.88
Closing GFA	3671.74	3523	2,264.34	4523.32	4667	2,592.11
Less: Consumer Contribution/grants towards GFA at end of the year	855.47	963	308.72	1166.64	1538	461.44
Net Closing GFA	2816.27	2560	1,955.61	3356.69	3129	2,130.66
Closing Equity qualified for RoE calculation (Opening Equity + New Equity)	607.25	695	572.88	642.45	810	607.89
Average Equity during the period (Average of Opening and Closing Equity)	587.16	630	559.51	624.85	753	590.38
Rate of Return of Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Pre Tax Rate of Return of Equity	19.36%	15.50%	15.50%	19.36%	15.50%	15.50%
Reasonable Return	**113.66**	**98**	**86.72**	**120.96**	**117**	**91.51**

6.293 As per Regulation 48 of the CSERC MYT Regulations, 2010,

"*Considering the provisions of clause 5.3. a) of the Tariff Policy, the commission may allow return on equity as per regulation 22 with appropriate modification taking in to view the higher risk involved in the business of distribution*".

6.294 Accordingly, the Commission in its MYT Order has decided that CSPDCL may be eligible for an additional 2% rate of return on equity for FY 2011-12 if it is able to overachieve its distribution loss target by 1% or more i.e. if the utility is able to achieve a distribution loss level of 31% or less as against the distribution loss level of 32% approved by the Commission for FY 2011-12.

Non Tariff Income and Income from Short Term Open Access (STOA)

6.295 CSPDCL submitted that the non-tariff income for FY 2011-12 and FY 2012-13 has been computed based on the actual non-tariff income for FY 2010-11, assuming a growth rate of 10% on the same.

6.296 CSPDCL has projected income from STOA at Rs 125 Cr and Rs 175 Cr for FY 2011-12 and FY 2012-13 respectively.

Commission's View

6.297 Non Tariff Income is the income from all other sources other than sale of power including Meter Rent, Delayed Payment Surcharge, income from investments and other miscellaneous charges.

6.298 The Commission has estimated the non-tariff income for FY 2011-12 at Rs 194.25 Cr which is equal to the revised estimate of non tariff income for the year provided by CSPDCL in the additional submissions to the Commissions.

6.299 The Commission has estimated the non-tariff income for FY 2012-13 based on the approved non-tariff income for FY 2011-12 and assuming a growth rate of 10% on the same.

6.300 As per the CSERC (Connectivity and Intra-State Open Access) Regulations, 2011 the revenue earned from the short-term open access customers by the STU/transmission licensee for bilateral transaction and collective transaction in a month shall be directly disbursed to the long term and medium term customers to reduce the transmission charges of the long-term and medium term open access customers.

6.301 The monthly transmission charges payable by CSPDCL to CSPTCL shall be arrived by deducting the total revenue earned through short term open access charges by CSPTCL during the month.

6.302 For FY 2011-12 the Commission has considered the income from STOA consumers at Rs 150 Cr considering the actual recovery from STOA consumers during FY 2011-12.The income from STOA consumers has been projected at lower, at Rs 125 Cr, in FY 2012-13 due to the decrease in the transmission charge approved for the year. The revenue on this account shall however be trued up in the next tariff order as per the actual amount received during the year.

Table 159: Non tariff income and income from STOA (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Non-Tariff Income	258.88	155	194.25	271.83	171	213.68
Income from STOA	100.00	125	150.00	175.00	175	125.00
Total	**358.88**	**280.34**	**344.25**	**446.83**	**345.88**	**338.68**

Annual Revenue Requirement

6.303 The ARR for the control period approved by the Commission can be found in the Table 160 below.

Table 160: ARR for FY 2011-12 and FY 2012-13 (Rs Cr)

	FY 2011-12			FY 2012-13		
	Approved in MYT Order	Submitted in the Petition	Approved in this Order	Approved in MYT Order	Submitted in the Petition	Approved in this Order
Net Power Purchase Cost	4,041	4,249	4,352	4,417	4,911	4,761
Interstate Transmission Charges	77	144	121	77	159	124
Intra-State Transmission Charges	748	748	748	768	768	547
SLDC (SOC + MOC)	5	6	5	6	6	6
O&M Expenses	743	858	770	778	922	807
Interest & Financial Charges	227	232	177	277	369	221
Less: Expenses Capitalized	46	50	23	42	63	24
Depreciation	114	100	81	144	132	89
Income Tax						
Provision For Bad Debts/ Other Debits	42	46	47	46	70	53
Total Expenses	**5,952**	**6,332**	**6,279**	**6,471**	**7,272**	**6,583**
Reasonable Return (ROE)	114	98	87	121	117	92
Less: Non Tariff Income	259	155	194	272	171	214
Less: Income from STOA	100	125	150	175	175	125
ARR	**5,707**	**6,149**	**6,022**	**6,146**	**7,043**	**6,336**

Revenue at Existing Tariff

6.304 CSPDCL submitted that for FY 2011-12, the Commission had projected revenue of Rs 4808 Cr. However, based on the revised sales, which is lower than the approved sales, the revenue from existing retail tariff is Rs 4590 Cr only which is lower than what was approved by the Commission for FY 2011-12. Further, projected revenue with existing tariff for FY 2012-13 is Rs 5094 Cr.

Commission's View

6.305 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 ratio of billing demand to contract demand at 85%.

6.306 CSPDCL while estimating the revenue at existing tariffs has also not considered the revenue impact of TOD Tariffs, Load Factor Incentive, Power Factor Penalty and Power Factor Incentive. The Commission has however considered the same as per the trend observed in the previous year. The consumer category-wise revenue for FY 2011-12 and FY 2012-13 estimated by the Commission is given in the following table:

Table 161: Revenue at Existing Tariff Approved by the Commission (Rs Cr)

Consumer Categories	FY 2011-12	FY 2012-13
Total Revenue LV	1473	1610
Total Revenue HV	2176	2466
Total Revenue EHV	1040	1201
Grand Total	**4689**	**5278**

6.307 The Commission approves revenue (at existing tariff) of Rs 4689 Cr and Rs 5278 Cr for FY 2011-12 and FY 2012-13 which works out to an average billing rate of Rs 3.47/unit for the FY 2012-13.

Wheeling Charges for Distribution Open Access Consumers

6.308 The wheeling charges for the distribution open access consumers has been determined from the distribution ARR approved by the Commission as discussed above, and in accordance with the methodology adopted by the Commission in the tariff order for FY 2007-08, as discussed below.

6.309 The approved distribution (wires) cost is the cost of the distribution system on a standalone basis, after excluding the costs of the generation function, transmission function, SLDC charges and the power purchase costs, as given in the Table 162 below:

Table 162: Estimated Wheeling Charge during FY 2012-13

Particulars	Unit	Approved
O&M Expenses	Rs Cr	806.78
Interest & Financial Charges	Rs Cr	220.94
Less: Expenses Capitalized	Rs Cr	24.20
Depreciation	Rs Cr	88.95
Income Tax	Rs Cr	-
Provision For Bad Debts/ Other Debits	Rs Cr	52.78
Reasonable Return (ROE)	Rs Cr	91.51
Non Tariff Income	Rs Cr	213.68
Expenditure	Rs Cr	1,023.08
Total Energy input to 33 kV distribution system	**MU**	**18,131**
Total distribution cost at 33 kV	Rs. Cr	1,023.08
Less Interest on Consumer Security Deposits	Rs. Cr	41.25
Distribution cost for wires business (excl. interest on consumer security deposit)	Rs. Cr	981.83
Distribution cost for 33 kV voltage level [assuming 35% of cost at 33kV less interest on consumer security deposits]	Rs. Cr	343.64
Wheeling Charges for 33 kV voltage level	**Paise/kWh**	**18.95**

6.310 The distribution system loss at 33 kV shall continue to be considered as 6%, to be borne in kind and debited to the energy account of the open access customers. The loss level has been retained as 6% in the absence of any study submitted by the CSPDCL.

Treatment of Surplus (Gap) of Previous Year and Revenue Gap

6.311 The revenue gap/surplus is the difference between the revenue earned by the CSPDCL at the existing tariffs and the annual revenue requirement for the year after accounting for the amount of truing up for previous years.

6.312 The total net surplus available to CSPDCL on considering (provisional) truing up upto FY 2010-11 is Rs 639 Cr, which has been adjusted in the ARR for FY 2011-12. Accordingly, the Commission has calculated a revenue gap of Rs 693 Cr for FY 2011-12 as has been shown in the table above.

6.313 The standalone revenue gap (at prevalent tariff) for FY 2012-13 for CSPDCL is estimated at Rs 1059 Cr. The revenue gap (at the prevalent tariff) for FY 2011-12 has been adjusted in the ARR for FY 2012-13. Accordingly, the cumulative revenue gap during FY 2012-13 is estimated to be Rs 1752 Cr.

Table 163: Treatment of Previous Year's Surplus and Revenue Gap (Rs Cr)

Particulars	FY 2011-12		FY 2012-13	
	Approved in MYT Order	Approved in this Order	Approved in MYT Order	Approved in this Order
ARR for the year	**5,707**	**6,022**	**6146**	**6,336**
Revenue at Prevalent Tariff	4,808	4,689	-	5,278
Surplus/ (Deficit) for the year (+/-)	**(899)**	**(1,332)**	**-**	**(1,059)**
Previous year Surplus/ (Deficit) (+/-)	556	639	-	(693)
Cumulative Surplus/ (Deficit) (+/-)	**(343)**	**(693)**	**-**	**(1,752)**

Treatment of Revenue Gap for FY 2012-13

6.314 It has been estimated that with the prevailing tariff CSPDCL would get Rs.5278 Cr as revenue during FY 2012-13 leaving deficit of Rs.1059 Cr which after adjustment of deficit of Rs.693 Cr from previous years would result in a cumulative deficit of Rs. 1752 Cr for FY 2012-13. If this gap were to be met during a single year it would result in a tariff shock to the consumers in the state.

6.315 Accordingly, to avoid tariff shock to the consumers, which may affect adversely the agriculture as well as industrial growth of the State the Commission has decided to increase the tariff only to a limited extent. The new retail supply tariff approved by the Commission in this Order will result in an estimated additional revenue of Rs 924 Cr in FY 2012-13 against the estimated cumulative deficit of Rs 1752 Cr. The remaining deficit of Rs 828 Cr shall be carried forward to FY 2013-14 and thereafter but not for more than period of three years. The suitable carrying cost on the same may be allowed.

Table 164: Treatment of Revenue Gap for FY 2012-13 (Rs Cr)

		FY 2012-13
1	ARR for FY 2012-13 (Rs Cr)	6336
2	ACOS for FY 2012-13 (Rs/unit)	4.16
3	Previous Year's Surplus/(Deficit) (Rs Cr)	-693
4	ARR after adjusting Previous Year's Surplus/(Deficit)	7030
5	Adjusted ACOS (Rs/unit)	4.62
6	Revenue at Existing Tariff (Rs Cr)	5278
7	Cumulative Revenue Gap (Rs Cr)	1752
8	Additional Revenue Generated at Proposed Tariff (Rs	924
9	Untreated Gap (Rs Cr)	828
10	ACOS for FY 2012-13 (Rs/unit) considering the part of gap being treated in FY 2012-13	4.07

7 TARIFF PRINCIPLES AND DESIGN

Tariff Principles

7.1 In assessing the revenue requirements of the three companies and in determining the generation tariff, the transmission charges and the retail supply tariff for FY 2012-13, the Commission has been guided by the provisions of the Electricity Act, 2003 (the Act), the National Electricity Policy (NEP) and the Tariff Policy (TP) and CSERC (Terms and conditions of determination of tariff according to Multi-Year tariff Principles) Regulations, 2010. Section 61 of the Act lays down the principles which should guide determination of retail supply tariff – 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 tariff regulations of this Commission. 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.

7.2 The ARR and tariff in this tariff order has been determined under the multi-year-tariff (MYT) framework as stipulated by the Tariff Policy and in accordance with the CSERC (Terms and Conditions of determination of Tariff according to Multi-Year tariff Principles) Regulations, 2010 as notified by this Commission.

7.3 In determining the tariff for the year, the Commission has followed the cost plus method and has also continued the process of rationalisation of tariff, a process which was started with the first tariff order of the Commission for the year FY 2005-06 in order to ensure that the tariffs reflect, as far as feasible, the cost of supply. The mandate of 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 of the Commision. The cross subsidies are being reduced over the years and the same philosophy has been followed this year also. For determination of cross-subsidy, the Commission has relied on average cost of supply instead of voltage-wise or consumer category-wise cost of supply due to the absence of relevant data.

Tariff Design

7.4 In its Petition for FY 2012-13, CSPDCL has submitted the revised ARR for FY 2010-11, FY 2011-12 and FY 2012-13 at Rs. 4197 Cr, Rs. 6149 Cr and Rs. 7043 Cr. The Petitioner has also estimated a cumulative revenue gap of Rs 3089 Cr in FY 2012-13 (including recovery of gap of Rs. 1141 Cr for previous years) at existing tariffs and has accordingly proposed category-wise retail tariffs designed to earn additional revenue of Rs. 3089 Cr.

7.5 The Commission has approved the ARR and revenue gap for FY 2012-13 after detailed scrutiny of the revenue requirement proposed by the CSPDCL. The Commission has arrived at the revised ARR of Rs 3978 Cr, Rs 6021 Crand Rs 6336 Crfor FY 2010-11, FY 2011-12 and FY 2012-13 respectively after prudence check and in accordance with the MYT guidelines. The ARR and cumulative revenue gap approved by the Commission for FY 2012-13 will be met to a limited extent through the revenues at revised tariffs. The Commission has approved the revised ARR of Rs 7030 Cr for the FY 2012-13 in respect of CSPDCL after accounting for the deficit of Rs. 693 Cr (revised approved in this tariff order) carried forward from FY 2010-11. It has been estimated that with the prevailing tariff, CSPDCL would get Rs 5278 Cr during the FY 2012-13 leaving a cumulative deficit of Rs. 1752 Cr.

7.6 The Commission has carried out the final true up for FY 2005-06 and FY 2006-07, and approved provisional ARR for FY 2008-09 for CSEB and its successor companies, and has undertaken provisional truing up for FY 2009-10 for the three successor companies of CSEB in its Tariff Order dated March 31, 2011. The gap/surplus generated by the truing up exercises has also been considered in arriving at the cumulative gap of Rs 1752 Crfor CSPDCL for FY 2012-13 in this Order.

7.7 The revision in tariff has been neccesiated by the increase in the average cost of supply (ACOS) which has increased from Rs 4.02/unit (unadjusted) and Rs 3.78/unit (adjusted) in FY 2011-12 (as approved in the Tariff Order) to Rs 4.62/unit (unadjusted) and Rs 4.07/unit (adjusted) in FY 2012-13. The increase in tariff for various consumer categories has been approved to ensure that the tariffs are reflective of cost of supply and the cross subsidy for all consumer categories is gradually reduced to within +/- 20% of the ACOS, as mandated by the Tariff Policy.

LT Tariff

LV-1 : Domestic

7.8 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. irrespective of their consumption or connected load. The consumers in the BPL category shall be charged for their consumption over and above the subsidised units, if any, at the rate specified by the Commission in this tariff order.

7.9 In domestic (LV 1) category, there are presently five slabs, namely, 0-100 units, 0-200 units, 0-500 units, 0-700 units and 0-above 700 units. These slabs are non-telescopic, which means that billing is done for all the energy consumption in a particular slab at the same rate.

7.10 CSPDCL in its petition has proposed re-introduction of telescopic slab tariff in place of non-telescopic slab tariff for LV domestic consumers. Further, various consumer groups have also requested for the removal of non-telescopic slab tariff as the same is leading to high cost on even marginal increase in consumption over the lower slab.

7.11 In order to provide relief to the consumers, the Commission has decided to re-introduce telescopic slab tariff for LV domestic consumers, which is prevailing in many States.

7.12 The new slabs for the domestic consumers, under telescopic tariff, would be:

Slab 1: 0-100 units;

Slab 2: 101-200 units;

Slab 3: 201-500 units; and

Slab 4: more than 500 units.

7.13 The tariff for all categories of domestic consumers has been increased to reflect the increase in cost of supply. The Commission has tried to minimize the impact of rise in cost of supply on the small domestic consumers and the tariff for the category with the lowest consumption (0-100) has been restricted to 52% of the average cost of supply (ACOS) and for the domestic category in total has been restricted to 70% of the ACOS.

LV-2 : Non-Domestic

7.14 In non-domestic (LV 2) category, there are presently three slabs, namely, 0-100 units, 0-above 500 units and 0-above 500 units. These slabs are non-telescopic, which means that billing shall be done for all the energy consumption in a particular slab at the same rate.

7.15 CSPDCL in its petition has proposed re-introduction of telescopic slab tariff for LV non-domestic consumers. Further, various consumer groups have also requested for the removal of non-telescopic slab tariff as the same is leading to high cost on even marginal increase in consumption over the lower slab.

7.16 In order to provide relief to the non-domestic consumers, the Commission has decided to re-introduce telescopic slab tariff for LV non-domestic consumers as proposed by CSPDCL.

7.17 The new slabs for the non-domestic consumers, under telescopic tariff, would be:

Slab 1: 0-100 units;

Slab 2: 101-500 units; and

Slab 3: more than 500 units.

7.18 The tariff for all categories of non-domestic consumers has been increased to reflect the increase in cost of supply. The Commission has tried to minimize the impact of rise in cost of supply on the small non-domestic consumers and the tariff for the category with the lowest consumption (0-100) has been restricted to 98% of the ACOS.

7.19 The option for demand based tariff for non-domestic category will, however, continue as approved in the Tariff Order for FY 2011-12.

7.20 As per the provisions of the clause 4.40 of the Chhattisgarh State Electricity Supply Code, 2011 this LT non-domestic category tariff has been made applicable to HV consumers seeking separate independent LT connection in the same premises of HV industrial connection, to meet out its essential load during emergency on non-availability of supply in HV connection which is limited to maximum permissible load of 20 KW.

LV-3 : Agriculture

7.21 Agriculture tariff has traditionally been highly subsidized. The average tariff for this category has even been below 50% of the average cost of supply. The existing tariff for agriculture consumers is only 30% of the adjusted average cost of supply approved for FY 2012-13. The Commission has decided to increase the tariff for this category and bring it to 36 % of the average cost of supply so as to reduce the cross subsidy burden borne by other consumer categories to the reasonable extent in accordance to the provision in the Tariff Policy.

7.22 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.

LV-4 : Agriculture Allied Activities

7.23 The tariff for this category has been increased to reflect the increase in the average cost of supply.

LV-5 : L.T. Industries

7.24 The tariff for all the sub-categories has been increased to reflect the increase in the average cost of supply.

LV-6 : Public Utilities

7.25 This tariff is applicable to both public street lights and public water works. This category is highly subsidised and continues to be a cross subsidised category. While the tariff for this category has been increased to reflect the increasing cost of supply, the average tariff for the category has been restricted to 78 % of the average cost of supply.

L.T. Temporary Supply

7.26 The tariff for temporary supply is maintained at one and half times the tariff for the respective categories of 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.

Power Factor Incentive and Surcharge

Power Factor Surcharge

7.27 Power factor correction is required to the extent possible. Ideally the power factor should be close to unity. Pump and tubewells typically have a low power factor. The Commission with a view to encourage power factor correction, has provided power factor incentive and levy of surcharge on agriculture consumers with load more than 3 HP. This has the following benefits to cosumers and CSPDCL :

- improve voltage profile of consumers;
- increase operating life of motors;
- reduce T&D losses;

Applicability & quantum of the power factor surcharge

- Suitable Capacitor of adequate capacity needs to be installed to maintain a power factor of 0.85 or above, for all the types of loads for 3 HP and above excluding domestic load less than 15 kW and non-domestic load less than 15 kW.
- Power factor surcharge is applicable to agriculture consumers having connected load of more than 3HP.
- Power factor surcharge is applicable to domestic and non-domestic consumers with connected load of 15 kW and above.
- Where meters installed in conections are not capable of recording average monthly power factor of the load, the capacity of working capacitor indicated against the capacity of the motor as indicated in Annexure-11 of Chhattisgarh Electricity Suplly Code, 2011 will be considerd in order.

7.28 All LT industrial, agriculture allied and public water works, sewage treatment plant, sewage pumping installation consumers whose contracted load/connected load is 3 HP and above shall arrange to install suitable low tension capacitors of appropriate capacity at their cost. The consumers shall also ensure that the capacitors installed by them are properly matched with the actual requirement of the load so as to ensure average monthly power factor of 85% or above. A consumer who fails to do so shall be liable to pay power factor surcharge @ 30 (thirty) paise per unit on the entire consumption of the month.

7.29 All LT domestic consumers with contracted load of 15 KW or above, have to install suitable low tension capacitors of appropriate capacity at their cost. The consumers shall ensure that the capacitors installed by them are properly matched with the actual requirement of the load so as to ensure average monthly power factor of 85% or above. A consumer who fails to do so will be liable to pay low power factor surcharge @ 30 (thirty) paise per unit on the entire consumption of the month.

7.30 All LT non-domestic consumers with contracted load / connected load of 15 KW or above, have to install suitable low tension capacitors of appropriate capacity at their cost. The consumers shall ensure that the capacitors installed by them are properly matched with the actual requirement of the load so as to ensure average monthly power factor of 85% or above. A consumer who fails to do so will be liable to pay low power factor surcharge @ 30 (thirty) paise per unit on the entire consumption of the month.

7.31 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) paise per unit on the entire monthly consumption, provided the load of the welding transformer(s) exceeds 25% of the total connected load of connection.

Power Factor Incentive

7.32 Currently, all categories of LT consumers to whom power factor surcharge is applicable; shall also be eligible for power factor incentive. Such incentive shall be payable @ of 10 paise per unit on the entire consumption of that month in which he maintains an average monthly power factor equal to or above 90% and @ 20 paise per unit on entire consumption of that month in which he maintains an average monthly power factor of 95% or above. This shall continue to be applicable.

7.33 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 may be.

7.34 Levy of power factor surcharge as indicated above shall be without prejudice to the rights of the CSPDCL to disconnect the consumer's installation if the average monthly power factor remains below 0.7 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 the CSPDCL.

7.35 A relaxation is given to new LT consumers to improve the power factor to 0.85 and above within six months from the date of connection. If the power factor of new LT consumers is found less than 0.85 during first six months from the date of connection and if it maintains average monthly power factor consecutively in subsequent three months not less than 0.85, then the surcharge billed on account of low power factor during the said period shall be withdrawn and credited in the coming months bills.

EHV and HV Tariff

EHV Categories

7.36 The Commission has made the EHV tariff applicable for consumers who avail supply at 400 kV, 220 kV 132 kV.

7.37 As per the current tariff structure all EHV consumers except Railways are billed based on their kWh consumption. The Commission has allowed KVAh billing only for Railway Traction category since last six years and it is operating effectively. Regarding the implementation of KVAh billing for the remaining EHV and HV consumers the Commission, in its Tariff Order dated March 31, 2011, had observed that the impact of the KVAh billing on all categories of consumers was not known. The Commission in its Tariff Order had noted that the matter of KVAh billing is being studied by the Forum of Regulators (FOR) and would be examined further by the Commission on receipt of the report of the FOR study. While the report of FOR regarding “Study on Impact Assessment of KVAh metering in India” has not been finalized yet by the FOR, the draft report has been received by the Commission. Following is reproduced from the draft report –

"PF penalties is not the best method for charging for reactive power compensation as power factor is a relative measure of reactive power usage and not absolute measure and loading of the line or inefficiencies caused due to it are proportional to absolute quantity of power used by the consumer."

7.38 Further, FOR in its "Report on Metering Issues", dated August 2009, has noted the several advantages of KVAh billing. It has stated that –

"Industrial and Non-Domestic Consumers generally maintain poor Power Factor at their end, they are forcing the Network to get overloaded and suffer higher load losses. It also harm to other Consumers as it results into Voltage dips. Further, the Consumers may also be subjected to higher tariff, penalty etc. as made applicable by appropriate ERC from time to time. KVAh metering is a concept mooted to replace the conventional kWh metering and penalty on poor power factor.

At present certain section of consumers in certain states are billed on two type of tariff i) KWh and ii) power factor penalty. The KVAh metering vectorial or arithmetic sum of active power and reactive power integrated over a time interval. KVAh metering is introduced by many states in India like Delhi, Himachal,Chattisgarh, J&K,UP, Uttarnchal. Power factor (KW/KVAh) penalties are also in vague in states like Gujarat,Bihar, Maharashtra, WestBengal (DVC), DNH, UP, Tamilnadu, Jharkhand, Punjab, MP, HP. Measurement of KVAh and related tariffs will simplify the billing procedure from three parameters to two and is expected to help in reducing reactive currents in the system by commercially motivating industrial and non-industrial consumers to install reactive compensation at their premises.

7.39 Thus implementation of KVAh billing has several advantages and is beneficial to both the licensee and the consumers in the long run. The Commission also notes that KVAh metering is already in place for the EHV and HV consumers of CSPDCL. Further, the KVAh consumption based billing for energy charge has already been adopted by other states such as Uttar Pradesh, Uttaranchal, Delhi, etc. and has also been successfully introduced in this state for the Railway Traction category.

7.40 The Commission has decided not to delay the introduction of KVAh billing for EHV/HV consumers any further and has decided to implement KVAh based billing for EHV/HV consumers in the State in a phased manner beginning FY 2012-13. To begin with, KVAh based billing shall be carried out for all EHV consumers, HV-8 consumers and HV-10 consumers from FY 2012-13 and onwards. KVAh based billing shall be considered to be introduced for HV-1, HV-2, HV-3, HV-4, HV-5, HV-6, HV-7 and HV-9 catgory of consumers in subsequent years. For the present, the Commission has decided to defer the implementation of KVAh tariff for HV-1, HV-2, HV-3, HV-4, HV-5, HV-6, HV-7 and HV-9 consumers so as to allow the smaller HV consumers to prepare for implementation of such a mechanism.

7.41 Even though billing for all EHV consumers shall be on the basis of KVAh units, the Commission directs CSPDCL to record both KVAh and kWh units consumed by all EHV consumers and include the same in the R-15 prepared by it each month.

EHV-1 : Railway Traction

7.42 The tariff for this category has been increased to reflect the increase in the average cost of supply.

7.43 The condition of power factor incentive / penalty shall not be applicable as the energy charges are billed on KVAh.

EHV-2 : Heavy Industries

7.44 The tariff for this category has been increased to reflect the increase in the average cost of supply, along with introduction of KVAh billing.

7.45 The condition of power factor incentive / penalty shall not be applicable as the energy charges are billed on KVAh.

EHV-3 : Steel Industries

7.46 The tariff for EHV Steel Industries was low in the past and has been lower than the tariff for other industrial consumers in the state. The Commission, in this tariff order, has sought to bring the tariff for the Steel Industries closer to the tariff for other industrial consumers. The tariff for this category has thus been increased suitably, along with introduction of KVAh billing. The revised tariff for the category is however within +20% of the average cost of supply approved for the year.

7.47 The condition of power factor incentive / penalty shall not be applicable as the energy charges are billed on KVAh.

EHV-4 : Other EHV consumers

7.48 The tariff for this category has been increased to reflect the increase in the average cost of supply, along with introduction of KVAh billing.

7.49 The condition of power factor incentive / penalty shall not be applicable as the energy charges are billed on KVAh.

HV Categories

7.50 As per the current tariff structure, all HV consumers are billed based on kWh consumption. CSPDCL has proposed that since KVAh billing system is a more accurate cost effective system to extend the uniform incentive/penalty on account of good or low PF and encourage consumers to maintain their power factor as near as possible to unity, all HV consumers should be billed according to their KVAh consumption. As already mentioned at 7.40, the Commission decided to retain KWh billing for all HV consumers excluding HV-8 consumers and HV-10 consumers.

7.51 Even though billing for HV category consumers except HV-8 and HV-10 category consmers shall be on the basis of kWh units, the Commission directs CSPDCL to record both KVAh and kWh units consumed for all HV catetgory consumers and include the same in the R-15 prepared by it each month.

HV-1 : Steel industries

7.52 The tariff for HV Steel Industries was low in the past and has been lower than the tariff for other industrial consumers in the state. The Commission, in this tariff order, has sought to bring the tariff for the Steel Industries closer to the tariff for other industrial consumers. The tariff for this category has thus been increased suitably. The revised tariff for the category is however within +20% of the average cost of supply approved for the year.

7.53 Under this HV-1 category, the Commission has decided to give an optional tariff for Mini Steel Plants as per proposal of CSPDCL, since, it has been a long pending demand of mini steel plants of the State that they are required to pay substantial amount of fixed charges even during no or very low production periods when the energy consumption is very low which adversely affect their capability to compete in the national steel market.

7.54 Optional tariff for Mini Steel Plant will be applicable to Mini Steel Plants exclusively and only having Electrical Arc Furnace or Induction Furnace for manufacturing of steel without having any load for the purpose other than manufacturing of steel such as rolling mill and steel casting unit, etc. and any combination thereof. Once opted such consumer will have an option to change tariff from this optional category as per provisions in the Chhattisgarh State Electricity Supply Code, 2011.

HV-2 : Mines and Cement industries

7.55 The tariff for this category has been increased to reflect the increase in the average cost of supply.

HV-3 : Other industries

7.56 The tariff for this category has been increased to reflect the increase in the average cost of supply.

HV-4 : Low load factor industries

7.57 The tariff for this category has been increased to reflect the increase in the average cost of supply.

HV-5 : Residential Purpose

7.58 The tariff for this category has been increased to reflect the increase in cost of supply and to bring the average tariff of the category closer to the average cost of supply.

HV-6 : General purpose non-industrial

7.59 The tariff for this category has been increased to reflect the increase in the average cost of supply.

HV-7 : Public water works & Irrigation

7.60 The tariff for this category has been increased to reflect the increase in the average cost of supply.

HV-8 : Start-up Power

7.61 This tariff is applicable to those consumers who avail supply for start-up of generators at 400/220/132/33/11 KV including biomass based generators, hydro generators and captive power plants. Start-up power tariff shall also be applicable to the generators who are co-located with industrial load. This tariff shall also be applicable to the generators situated in the state but have connectivity with the CTU system with proper accounting. This tariff shall also be applicable to such generator(s) for start up purpose prior to their COD.

7.62 It was brought to the attention of the Commission that some generators who do not have any agreement with CSPDCL for purpose of start up power, have also been availing power from CSPDCL on account of their connectivity to the grid .The Commission has decided to fix a single part tariff (on energy basis) for energy drawn by such generators including the captive power plants irrespective of having colocated load which also includes demand charge.

7.63 The condition of power factor incentive / penalty shall not be applicable as the energy charges are billed on KVAh.

HV-9 : H.T. Agriculture Allied Activities

7.64 The tariff for this category has been increased to reflect the increase in the average cost of supply.

HV-10: Industries related to manufacturing of equipments for power generation from renewable energy sources.

7.65 CSPDCL has proposed introduction of a new category for industrial consumers which are engaged in manufacturing of equipment related to renewable power to provide impetus to manufacture of renewable energy related equipment in the State. To promote manufacturing of plants and machineries / equipments used for generation of electricity from renewable source of energy, the Commission has introduced a new tariff category for such consumers.

7.66 This new tariff is applicable to consumers availing supply at 220/132/33/11 KV for manufacturing of plant, machinery and equipments 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 for the 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/equipments/ and other items such as electrical motors, structural items, nuts bolts, etc. which can be used for other purposes also.

7.67 The condition of power factor incentive / penalty shall not be applicable as the energy charges are billed on KVAh

Temporary Supply

7.68 For temporary supply, the tariff of one and a half times of permanent supply of that category of consumer is maintained. 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.

Billing for excess supply at HV and EHV

7.69 In case the maximum demand during any month exceeds the contract demand, the tariff for the category 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.

TOD Tariff

7.70 Para 8.4 of the the National Tariff Policy provides that time differentiated tariff be introduced on priority for large consumers (say, consumers with demand exceeding 1 MW) within one year, in order to flatten the peak load curve and implement energy conservation measures.

7.71 ToD regime has three time periods viz., normal period, evening peak load period and off-peak load period. In the previous tariff petition in respect of tariff determination for FY 2011-12, CSPDCL had proposed to change this to two time periods, namely, normal period and peak period. CSPDCL had also proposed to introduce TOD Tariff for LT industries above 50 HP load/contracted demand to two time blocks namely Normal and Peak period.

7.72 In the previous tariff order dated March 31, 2011, the Commission formed a view that the licensees needs to assess and submit the impact on its revenue and consumers of prevailing system as well as of the proposed system. The Commission decided to take study the pros and cons of changing the existing system and take a decision accordingly.

7.73 With regard to introduction of TOD tariff for LT industries, the Commission desired that CSPDCL should submit a detailed proposal covering the impact of such a regime on the revenues of CSPDCL and the consumers in the State. The Commission decided to allow TOD regime for LT categories after careful scrutiny of the utility's proposal.

7.74 In this tariff petition, CSPDCL has not proposed any change in the present TOD regime and has also not proposed to introduce TOD tariff for LT industries. Therefore, the Commission has decided to retain all the provisions of TOD tariff in this tariff order for FY 2012-13 as provided in the tariff order dated March 31, 2011.

Power Factor Incentive and Penalty

7.75 No change in the present principle and methodology of power factor incentive and penalty for HV consumers except HV-8 and HV-10 cateogry consumers has been made in this order. However, for all EHV category i.e EHV-1, EHV-2, EHV-3 and EHV-4 categories, and also for HV-8 and HV-10 category consumers, because of introduction of KVAh billing, there will be no provision of incentive or penalty for power factor.

Tariff for Standy-by charges

7.76 The Commission has made provisions for Standby charges for consumers availing open access and who draws power from the grid due to outage of generating plant / CPP. For this purpose, standby charges for such open access consumers drawing power up to the contracted capacity of open access during the outage of generating plant/CPP shall be 1.5 times of the per unit weighted average tariff of HV /EHV consumers. For drawl 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 HV/EHV consumers .

7.77 In view of clause 12.15 of the Chhattisgarh State Electricity Supply Code, 2011, a provision has also been made that in case of outage of CPP supplying power to captive / non captive consumer who has reduced its contract demand to zero and availed open access if draws power of CSPDCL, the billing of such power drawn shall be done as per the standby charges mentioned above.

Revenue at Approved Tariff

7.78 The expected consumer category-wise revenue from the approved tariffs given in the tariff schedule, and the average tariff for FY 2012-13 is given in the table below:

Table 165: Revenue in FY 2012-13 at Tariff Approved by the Commission (Rs Cr)

	Consumer Categories	Sales	Revenue	ABR
	LV Category	6542	1895	2.90
	EHV Category	2533	1363	5.38
	HV Category	6150	2944	4.79
	Grand Total	**15224**	**6202**	**4.07**

Cross Subsidy

7.79 An element of cross-subsidy is inherent in the present tariff structure. The tariffs of different consumer categories in relation to the average cost of supply (ACOS) has been such that the tariffs for some categories of consumers, mainly EHV and HV consumers, are higher than the ACOS while the tariffs for others are lower. The level of cross-subsidy in the tariff, excluding penalties and rebates, determined in this order is given in the table below.

Table 166: Cross Subsidy with Existing and Approved Tariffs (Rs/KWh)

		Approved in Tariff Order dated 31.03.2011		Approved in this Order	
	Particulars	ABR	ABR/ACOS	ABR	ABR/ACOS
LV Consumers	Domestic	2.22	59%	2.85	70%
	Non-Domestic	4.39	116%	5.04	124%
	Agricultural	1.23	33%	1.46	36%
	LT Industry	4.42	117%	4.94	120%
	Public Utilities	2.29	61%	3.16	78%
	Sub Total-LV	**2.27**	**60%**	**2.90**	**71%**
EHV Consumers	Railway Traction	4.82	128%	5.26	128%
	Heavy Industries*	5.21	138%	5.76	141%*
	Steel Industries	3.86	102%	4.72	116%
	Coal Mine, Cement & Other EHV Industries*	4.74	126%	5.28	130%*
HV Consumers	Steel Industries	3.78	100%	4.58	112%
	Coal Mines & Cement Ind.	5.05	134%	5.45	134%
	Other HT Industries	4.75	126%	5.19	126%
	Low Load Factor Industries	4.95	131%	5.40	133%
	Residential Purpose	3.23	86%	3.95	97%
	General Purpose Non Industrial	5.03	133%	5.44	133%
	Public Water works & Irrigation	3.33	88%	4.06	100%
	Agricultural Allied Services	5.41	143%	4.74	116%
	Sub Total-HV	**4.29**	**113%**	**4.96**	**122%**

** The approved ABR/ACOS of the category is not comparable to the ABR/ACOS approved in the Tariff Order due to migration of consumers with connected load greater than 20 MVA from EHV-4 to EHV-2 category.*

Cross-Subsidy Surcharge

7.80 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 and the methodology adopted by it in FY 2007-08, as shown in the Table 167 below:

Table 167: Cross Subsidy Surcharge for Open Access Consumers (Rs/KWh)

Particulars	EHV Consumers	HV Consumers
Average Rate of Subsidizing Categories	5.382	4.831
Average Cost of Supply	4.074	4.074
Cross Subsidy Surcharge	1.309	0.758
Cross Subsidy Surcharge at 90% of the computed value	**1.178**	**0.682**

7.81 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.

a) For EHT consumers Rs 0.654 per unit (which is 50% of the computed value of Rs 1.309 per unit).

b) For HT consumers Rs 0.379 per unit (which is 50% of the computed value of Rs 0.758 per unit).

Date of applicability of tariff

7.82 In accordance with the CSERC (Details to be Furnished by the Licensees or Generating Company for Determination of Tariff and Manner of Making Application) Regulations, 2004 and CSERC MYT Regulations a public notice of seven (7) days has to be given before implementation of the tariff order. The retail tariff approved as per the tariff schedule in this order shall be applicable accordingly.

7.83 In this tariff order, the Commission has created a regulatory asset of Rs 828 Cr from the revenue gap of CSPDCL. The Commission has also decided to provide suitable carrying cost for the regulatory assets. Due to this the distribution utility shall not be able to recover the full cost as per the ARR resulting shortfall in working capital and cash flows issues. However to give relief to some extent, the Commission has decided to implement the tariff/charges for CSPGCL, CSPTCL and SLDC w.e.f the same date as the date of applicability of the retail tariff of CSPDCL, which shall be intimated by CSPDCL to CSPGCL, CSPTCL and SLDC.

8 TARIFF SCHEDULE

8.1 The detailed schedules of approved tariff are as given in this part.

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.

LV-1: Domestic

1. Applicability

This tariff is applicable to domestic light and fan and power used for all domestic appliances, in a 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	Unit Slab	Fixed Charge (In Rupees per KWh)	Energy Charge (Rs. per KWh)	Minimum Fixed Charge
LV-1: Domestic				
Domestic including BPL Consumers	0 -100 units	1.40	0.70	Single phase Rs 30/-p.m Three phase Rs 100/-p.m
	101 - 200 units	1.60	0.80	
	201 - 500 units	2.30	1.10	
	501 and Above	3.85	2.00	

Notes:

i. Only those domestic consumers who hold BPL card issued by State Govt. will be considered as BPL domestic consumer. BPL card holders shall be entitled for subsidy for 30 units as per State Govt. order, and their consumption shall be billed as per tariff LV-1.

ii. All BPL domestic category of consumers shall be billed as per meter reading. All the new BPL domestic connections be served with meter only.

iii. If a portion of the dwelling is used for the conduct of any business other than those specified above, the entire consumption shall be billed under Non-domestic tariff LV-2.

LV-2 Non-Domestic

1. Applicability

This tariff is applicable to light and fan and power to shops, show rooms, 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	Unit slab	Fixed Charge. (in Rs. per KWh)	Energy charge (Rs. per KWh	Minimum fixed charge
LV-2.1:Non-Domestic (Normal Tariff)	0 – 100 units	2.50	1.50	Single phase Rs 50/-p.m
	101 - 500 units	3.00	1.80	Three phase Rs 200/- p.m
	501 and above units	3.75	2.10	
LV-2.2: Non-Domestic Demand Based Tariff (for Contract demand of 15 to 75 kW)		Demand charges- Rs 150 /kW/ month on billing demand	4.50	

Note:

i. The tariff LV-2.2 will be optional.

ii. Demand based tariff LV– 2.2 is applicable for contracted demand from 15 KW to75 KW. All the L.T. non-domestic connections having contracted load of above 100 HP (75 KW) and availing tariff LV-2.1 shall pay an additional charge @ 30 % of the total amount of monthly bill (fixed and energy charge).

iii. The 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.

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		
Metered Supply	Rs 25/HP/month	1.30

One 40W incandescent bulb/CFL of wattage not exceeding 20 W 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 & 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 30 paise per unit.

iii) Fixed charge is monthly minimum charge whether any energy is consumed or not during the month.

LV- 4 L.T. Agriculture Allied Activities

1. Applicability

This tariff is applicable to pump / tube well connections, other equipments and light and fan for tree plantation, fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture and aquaculture laboratories milk chilling plant and food processing units

2. Tariff

Category of consumers	Fixed Charge	Energy Charge (Rs. per KWh)
LV-4.1: Up to 100 HP or 75KW	Rs 60 per HP per month or Rs 80.43 per KW per month	3.35

Category of consumers	Fixed Charge	Energy Charge (Rs. per KWh)
LV-4.2: Demand based tariff for contract demand of 15 to 75KW	Rs 150 per KW per month on billing demand	3.15

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 30 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.

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 25/HP/month	2.40
5.2	**Other Industries**		
5.2.1	Up to 25 HP	Rs 60/HP/month	3.15
5.2.2	Above 25 HP up to 100 HP	Rs 100/HP/month	3.75
5.3	**Demand based Tariff** - for contract demand of ***15KW to 75 KW***	Demand charges- Rs 150/kW/month on billing demand	3.85

Notes:

i) Consumers having contracted load above 100 HP (75 KW) shall be billed 30% additional charges (fixed charge and energy charge) on tariff 5.2.2 till they switch over to HT connection.

ii) Demand based tariff – 5.3 is applicable for maximum contracted demand from 15 KW to 75 KW.

iii) For tariff LV 5.1 and LV 5.2 fixed charge is monthly minimum charge and for tariff 5.3 the Demand charge on contract demand is a monthly minimum charge whether any energy is consumed during the month or not.

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 55/HP/month or Rs 74/kW/month	2.85

Note:
Fixed charge is monthly minimum charge whether any energy is consumed during the month or not.

LT Temporary Supply

1. Applicability

This tariff is for connections of temporary in nature. The tariff applicable shall be as given in 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 upto 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

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 /100HP of contracted load shall be served.

3. All existing L.T. connections with contracted load above 100HP which have not availed H.T. supply so far, shall be levied 30 % additional charge on the tariff of LV-2.1 or LV- 5.2.2 (whichever is applicable) on total amount of monthly bill comprising fixed charge/demand charge and energy charge.

4. Contracted load / connected load or contract demand /maximum demand in fraction shall be rounded off to the nearest integral figure, the fraction of 0.5 or above will be rounded to the next higher figure and the fraction of less than 0.5 shall be ignored.

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 & 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 nearest integral figure, the fraction of 0.5 or above will be rounded to the next higher figure and the fraction of less than 0.5 shall be ignored.

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

a) All LT industrial, agriculture allied, and 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 him properly match with the actual requirement of the load so as to ensure average monthly power factor of 85% or above. A consumer who fails to do so shall be liable to pay power factor surcharge @ 30 (thirty) paise per unit on the entire consumption of the month.

b) All the agriculture pump connections of above 3HP shall provide with capacitor of specified rating maintain average monthly power factor of 0.85 or above failing which they are required to pay power factor surcharge @30 paise per KWh on the entire consumption for the month.

c) All LT domestic consumers with contracted load of 15KW or above shall arrange to install low tension suitable 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 85% or above. A consumer who fails to do so will be liable to pay low power factor surcharge @ 30 (thirty) paise per KWh on the entire consumption of the month.

d) All LT non-domestic consumers with contracted load / connected load of 15KW or above shall arrange to install low tension suitable 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 85% or above. A consumer who fails to do so will be liable to pay low power factor surcharge @ 30 (thirty) paise per KWh on the entire consumption of the month.

e) All LT installations having welding transformer 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) 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.

f) 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 may be.

g) Levy of power factor surcharge as indicated above, shall be without prejudice to the rights of the CSPDCL to disconnect the consumer's installation after issue of 15 day's 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 the CSPDCL.

h) Notwithstanding the above 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.

i) All categories of LT consumers in whose case power factor surcharge is applicable; shall also be eligible for power factor incentive. Such incentive shall be payable @ of 10 paise per unit on the entire consumption of that month in which he maintains an average monthly power factor equal or above 90% and @ 20 paise per unit of entire consumption of that month in which he maintains an average monthly power factor 95% or above.

8. Provisions of billing in case of Excess Supply

I. For Normal Tariff consumers

In case the connected load or the maximum demand 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.

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 time 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:-

$$EU = TU \left(1- \frac{CD}{MD}\right)$$

Where,

EU – denotes excess units;

TU – denotes total units supplied during the month;

CD – denotes contract demand, and

MD – denotes actual maximum demand.

III. The excess supply availed in any month shall be charged along with the monthly bill and shall be payable accordingly.

IV. 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 the 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. 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.

11. Rounding off

The bill shall be rounded off to the in 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 leviable on outstanding amount which is less than Rs. 10.

12. 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.

13. 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.

14. 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 required to pay such charges

15. Variable Cost Adjustment Charge

Variable Cost Adjustment charge as per the formula and conditions to be decided by the Commission, shall be levied in addition to energy charge on all the LV categories.

16. 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.

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.

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 consumer	Demand charge (Rs./KVA/month)	Energy charge (Rs. per KVAh)
EHV-1:Railway Traction	345	3.35

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.

EHV-2: Heavy Industries

1. Applicability

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. Tariff

Category of consumers	Demand charge (Rs./KVA/month)	Energy charge (Rs. per KVAh)
EHV-2: HEAVY INDUSTRIES	345	3.70

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.

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, 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 Charges (Rs./KVA/month)	Energy Charges (Rs./KVAh)
EHV- 3: Steel Industries	345	3.10

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.

EHV-4: Other EHV Consumers

1. Applicability

This tariff is applicable to all other EHV consumers up to contract demand of 20MVA which are not covered under any other EHV 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-4: other EHV consumers	345	3.50

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 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.

Tariff Schedule for High Tension (HT) Consumers

This tariff schedule is for consumers who avail supply at 33 or 11 KV.

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, 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 Charges (Rs./KVA/month)	Energy Charges (Rs./KWh)
HV-1.1: Steel Industries at 33 KV	360	3.50
HV-1.2: Steel Industries at 11 KV	370	3.60

Optional Tariff for Mini Steel Plant

Mini steel plant exclusively and only having Electrical Arc Furnace or Induction Furnace for the manufacturing of steel without having any load for the purpose other than manufacturing of steel such as rolling mill and steel casting unit etc. and any combination thereof can opt for the tariff as given below under this HV 1 category:

Category of Consumers	Demand Charges (Rs./KVA/month)	Energy Charges (KWh)
HV-1.3: Steel Industries at 33 KV	250	3.80
HV-1.4: Steel Industries at 11 KV	260	3.90

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.

HV-2: Mines and Cement Industries

1. Applicability

This tariff is applicable to the mines, coal mines and cement industries 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. Tariff

Category of consumers	Demand charge (Rs./KVA/month)	Energy charge (Rs. per KWh)
HV-2.1: Mines and Cement Industries at 33 KV	360	3.95
HV-2.2: Mines and Cement Industries at 11 KV	370	4.05

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.

HV-3: Other H.T. Industries

1. Applicability

This tariff is applicable to all other industries not covered under categories HV-1, HV-2 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. Tariff

Category of consumers	Demand charge (Rs./KVA/month)	Energy charge (Rs. per KWh)
HV 3.1: Other H.T. Industries at 33 KV	360	3.50
HV 3.2: Other H.T. Industries at 11 KV	370	3.60

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 during the month as per sliding window principle of measurement of demand. However, for fluctuating loads of industries such as electro-chemical, electro-thermal and gas manufacturing units etc., the maximum demand for 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.

HV-4: Low Load Factor Industries

1. Applicability

This tariff is applicable to all such HT industries to whom tariff category HV-1 and HV-3 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 KWh)
HV 4.1: Low load factor industries at 33 KV	205	3.75
HV 4.2 : Low load factor industries at 11 KV	210	3.85

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) For the purpose of billing of additional energy charge, the CSPDCL shall ensure installation of time of day meter.

iii) The supply availed beyond specified period in any month shall be charged along with the monthly bill and shall be payable by the consumer.

HV-5: Residential Purpose

1. Applicability

This tariff shall be applicable primarily 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.

2. Tariff

Category of consumers	Demand charge (Rs./KVA/month)	Energy charge (Rs. per KWh)
HV 5.1: Residential at 33 KV	360	3.20
HV 5.2 : Residential at 11 KV	370	3.30

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.

HV-6: General Purpose Non-Industrial

1. Applicability

This tariff is applicable for supply to establishment such as Railways (other than traction), hospitals, offices, hotels, shopping malls, educational institutions and other institutions etc. having mixed load or non-industrial and/or non-residential load. This tariff is also applicable to all types of construction load and 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 KWh)
HV 6.1: General Purpose Non-Industrial at 33 KV	360	4.10
HV 6.2: General Purpose Non-Industrial at 11 KV	370	4.20

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.

HV-7: Public Water Works and Irrigation

1. Applicability

This tariff is applicable to 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. This tariff is also applicable to 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. Tariff

Category of consumers	Demand charge (Rs./KVA/month)	Energy charge (Rs. per KWh)
HV 7.1: Public Water Works and Irrigation at 33 KV	205	2.90
HV 7.2: Public Water Works and Irrigation at 11 KV	210	3.00

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 during the month as per sliding window principle of measurement of demand.

HV-8: Start-Up Power Tariff

1. Applicability

The tariff shall be applicable to those consumers including IPP/CPP who avail supply for start-up of generators at 400/220/132/33/11 KV.

2. Tariff

Category of consumers	Demand charge (Rs./KVA/month)	Energy charge (Rs. per KVAh)
HV-8 : Start-up power tariff	185	5.40

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.

ii) Drawal of power shall be restricted to within 10% of load factor based on the contract demand and actual power factor 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.

iii) Start-up power shall also be made available to the generator connected to CTU grid with proper accounting.

iv) This tariff shall also be applicable to generators before their commercial operation.

v) In case of generators who have not availed start-up connection but eventually draws power from the grid shall be billed @ Rs 10.29 per kWh it as per the average billing rate for this tariff, which includes demand charge also.

vi) The 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. 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, 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 connection then demand charge as per this tariff category (HV – 8) 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.

HV-9: Agriculture Allied Activities

1. Applicability

This tariff is applicable to the consumer availing supply at HV for the purpose of pump / tube well connections, other equipments for tree plantation fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture and aquaculture laboratories milk chilling plant and food processing industries 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 KWh)
HV 9.1: Agriculture allied activities at 33 KV	360	3.20
HV 9.2: Agriculture allied activities at 11 KV	370	3.30

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.

HV-10: Industries related to manufacturing of equipments 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 equipments 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 for 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/equipments/ 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-10 : Industries related to Renewable power tariff	345	3.00

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.

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-8)), 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; is 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 the 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.

ix) Temporary connection shall not be served unless suitable capacitors are installed by the consumer so as to ensure power factor of not less than 0.90, in case of HT connections.

Time of Day Tariff

This tariff is applicable to EHV and HV industrial consumers. Under the Time of Day (TOD) Tariff, electricity consumption and maximum demand 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. The maximum demand and 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 industries covered in EHV-2, EHV-3, EHV-4, HV-1 including option1al tariff for Mini Steel Plants, HV-2, HV-3 and HV-10 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 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.

Terms and Conditions of EHV and HV Tariff

1. The maximum and minimum contract demand for different supply voltage is governed as per provision in supply code. 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	10 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% or 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. **Optional tariff for Mini Steel Plant (HV1.3 and HV 1.4)**

   Optional tariff will be applicable to mini steel plants exclusively and only having Electrical Arc Furnace or Induction Furnace for the manufacturing of steel without having any load for the purpose other than manufacturing of steel such as rolling mill and steel casting unit etc. and any combination thereof. Once opted such consumer will have an option to change tariff from this optional category as per provisions in the Chhattisgarh State Electricity Supply Code, 2011.

4. **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 nearest integral figure, the fraction of 0.5 or above will be rounded to the next higher figure and the fraction of less than 0.5 shall be ignored.

5. **Minimum Charge**

   The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

6. **Power Factor Incentive / Surcharge for all HV category consumers exclusive of HV-8 category consumers drawing power at 400/220/132/33/11 KV and HV-10 category consumers drawing power at 220/132/33/11 KV.**

a) If the average monthly power factor of the consumer increases above 95%, he shall be paid an incentive at the following rate :

For each one percent increase by which his average monthly power factor is above 95%, upto unity power factor.	-	One percent (1%) of the total amount of the bill under the head ‘energy charge’.

b) If the average monthly power factor of the consumer falls below 90%, he shall pay a surcharge in addition to his normal tariff, at the following rate:

For each one percent by which his average monthly power factor falls below 90% upto 85%	-	One percent (1%) of the total amount of the bill under the head ‘energy charge'

c) If average monthly power factor of the consumer falls below 85%, he shall pay a surcharge in addition to his normal tariff at the following rate :

For each one percent by which his average monthly power factor falls below 85%	-	Two percent (2%) of the total amount of the bill under the head 'energy charge'

d) If the average monthly power factor of the consumer falls below 70%, then the CSPDCL shall have the right to disconnect supply to consumer's installation after serving a notice of 15 days. Supply may be restored only after steps are taken to improve the power factor to the satisfaction of the CSPDCL. This is, however, without prejudice to the levy of surcharge for low power factor in the event of supply not being disconnected.

e) For this purpose, the "average monthly power factor" is defined as the ratio of total 'Kilo Watt hours' to the total 'Kilo Volt Ampere hours' recorded during the month. This ratio will be rounded off to two figures after decimal, 5 or above in the third place after decimal being rounded off to the next higher figure in the second place after decimal.

f) Notwithstanding the above, if the average monthly power factor of a new consumer is found to be less than 90% at any time during the first 6 (six) months from the date of connection, and if he maintains the average monthly power factor continuously in subsequent three months at not less than 90%, then the surcharge billed on account of low power factor during the said period, shall be withdrawn and credited in next month's bill

7. 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 & 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.

8. 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.

9. 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 is not less than Rs.20,000, and shall be adjustable in next month's bill.

10. 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:

Where, $$EU = TU\left(1- \frac{CD}{MD}\right)$$

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 the CSPDCL's right to discontinue the supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code.

iii. No rebates/incentive is payable on such excess supply.

11. 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.

12. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of EHV and HV consumers

13. 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.

14. Variable Cost Adjustment charge

Variable Cost Adjustment charge as per the formula and conditions to be decided by the Commission, shall be levied in addition to energy charge on all the EHV and HV categories.

15. 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.

16. 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.

17. Parallel Operation Charges (POC)

Parallel operation charges shall be payable by CPP to CSPDCL for its captive and non-captive load at the rate, as fixed by the Commission in its order passed on dated 31.12.2008 in petition No. 39 of 2006 (M), which is Rs.21/per KVA and as clarified in order dated 13.10.2009 in petition No. 20 of 2009 till revised by the Commission

18. Open Access Charges:

(a) Transmission Charges

(i) 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 45.546 crores.

ii) For short-term open access customer : Rs 224 /MWh (or Rs 0.224 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 4.50% 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 190 /MWh (or Rs 0.19 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 33KV side of 33/11KV sub-station.

(e) Operating Charges

The short-term open access customer shall pay the operation charges to SLDC at the rates specified by Central Commission from time to time which is presently Rs. 2000 per day.

(f) Reactive Energy Charges

27 paise/ KVARh

(g) Cross Subsidy Surcharge

i) For EHT consumers Rs 1.178 per KWh (which is 90% of the computed value of Rs. 1.309 per kWh).
ii) For HT consumers Rs 0.682 per KWh (which is 90% of the computed value of Rs.0.758 per kWh).

(h) Stand by charges: The standby charges for consumers availing open access 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 7.44 per KWh (1.5 times of the average billing rate of Rs 4.96 per KWh). For drawl 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 9.92. per KWh (2 times of the average billing rate of Rs. 4.96 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.

19. Provisions for renewable energy based power generating plant located in the State and supplying power to consumers (located in the State) through open access

i) 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.

ii) 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.

b) For EHT consumers Rs 0.654 per KWh (which is 50% of the computed value of Rs 1.309 per KWh).

b) For HT consumers Rs 0.379 per KWh (which is 50% of the computed value of Rs 0.758 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 quantum equal to such relaxations availed by the open access consumer.

TARIFF APPLICABLE FOR
CHHATTISGARH STATE POWER GENERATION CO. LTD.

TARIFF FOR CONVENTIONAL THERMAL PLANTS

The Annual Fixed cost and Energy Charge Rate applicable for conventional thermal plants shall be as per table given below. The billing shall be done in accordance to formulae given in the detailed order.

Bill Component		Korba Thermal Power Station	Dr. Shayama Prasad Mukherjee Thermal Power Station	Hasdeo Thermal Power Station
Annual Fixed cost	Rupees	306,13,42,426	507,01,75,046	446,66,46,976
Energy Charge Rate	Rs./KWh	0.909	0.816	0.808

TARIFF FOR HYDRO / SMALL HYDRO POWER STATIONS AND KAWARDHA CO-GENERATION PLANT

For hydro / small hydro stations single part billing shall continue in FY 2012-13. The applicable rate shall be:-

SN	Plant Name	Rate (Rs/KWh)
1.	HPS Bango	1.003
2.	SHP Gangrel	2.506
3.	SHP Sikasar	3.121
4.	Korba Mini Hydro	3.184

Rate of Kawardha Cogeneration plant shall be as per Generic Tariff for Biomass plants decided by the CSERC from time to time.

9 DIRECTIVES OF THE COMMISSION

9.1 The Commission has observed from the tariff petitions of CSPGCL, CSPTCL, CSPDCL and SLDC that some areas of the operational and financial performance of the licensee and the generating company require strengthening and improvement. In view of this the Commission, in various sections of this order has given certain directives with the specific objective of improving the efficiency of the three companies and SLDC in the interest of consumers as well as for development of power sector in the state.

9.2 Apart from these, there are certain other issues, not all of which may be directly related to tariff as such on which the Commission has been giving directions in its tariff orders in the past. Since the tariff order covers in its scope analysis of the performance of the utility, such directives are also considered necessary. Accordingly such directives have also been included in this order.

9.3 The Commission in the previous tariff orders had issued various directives for reducing the cost and increasing efficiency in the functioning of erstwhile CSEB / its successor companies. The Commission has noted that certain initiatives on operational reform envisaged under the Electricity Act, 2003 are yet to be taken. The Commission advises the companies that the directives given by the Commission should be complied properly and timely and Business As Usual (BAU) approach should not be taken for compliance of the directives.

Common Directives to all Companies

Gratuity and Pension Fund

9.4 The companies are directed to ensure payment to the gratuity and pension fund without fail in 12 equal monthly instalments. The compliance report along with the acknowledgment from Secretary of the trust must reach the office of the Commission by 15th of July/October/January of the current financial year.

Signing of Power purchase agreement (PPA)/ Transmission service agreement (TSA)

9.5 The CSPGCL and CSPTCL have reported that they have entered into PPA/TSA with CSPDCL, however, the Commission notes with concern that the said agreements have not been submitted for approval of the Commission till date. CSPDCL is directed to submit the PPA/TSA for approval of the Commission by 30th June, 2012.

Non submission of petition for final true up for FY 2007-08 and FY 2008-09

9.6 In its previous tariff order, the Commission has carried out final true up of the ARR for FY 2005-06 and FY 2006-07 for which statutory audit was reported to be completed by the Accountant General (Audit) (AG Audit for short). In the present petitions, none of the companies have submitted proposal for final true up of the FY 2007-08 and onwards. During the technical validation sessions, the Commission was informed that since the AG Audit report in respect of FY 2007-08 and onwards was not received, hence, proposal for final true up for FY 2007-08 and onwards has not been submitted by the power companies in their petitions. The issue regarding AG Audit reports was raised by various stake holders during public hearings held on March 2, 2012 and March 3, 2012. This issue was also raised by the members of State Advisory Committee during the meeting on March 13, 2012. A reference was made to power companies vide letter dated March 15, 2012 for informing the status regarding AG Audit report. In response, the Chhattisgarh State Power Holding Co. Ltd. (in short, CSPHCL) vide letter dated March 20, 2012 forwarded the copy of the AG Audit Report of Annual accounts of the erstwhile CSEB for FY 2007-08. It has also informed to the Commission that audit of accounts for the FY 2008-09 (up to Dec. 2008) of the erstwhile CSEB has also been completed by the AG (Audit), however the audit certificate is awaited. It has been noted by the Commission that the AG (Audit) has forwarded the copy of AG report of accounts for FY 2007-08 vide letter dated October 24, 2011 and same was received in the office of the Managing Director, CSPHCL on November 3, 2011. Therefore, taking serious view in the matter, the Commission directs the power companies to look in to the matter and submit petitions for final true up FY 2007-08 and FY 2008-09 at the earliest possible.

Directives to Generation Company (CSPGCL)

Compliance to earlier Directives issued in previous tariff order

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
Gratuity & Pension Fund The Commission directed to get the Fund requirement re-evaluated in light of the wage revision and increase in gratuity considering the recommendations of the Sixth Pay Commission. Further, with respect to the management of the Fund, the Commission had directed the utilities to reconsider the investment made from the Fund in view of the prevailing rate of interest being offered by banks/ financial institutions. It may take the help of experts for this purpose. Further to ensure that the contribution as approved by the Commission is actually remitted to the Fund, the Commission had directed that the contribution to Pension Fund allowed to the utilities in the ARR should be deposited to the Fund, without fail, in 12 monthly instalments. Finally the Commission had directed all the utilities to submit a quarterly report in the matter to the Commission.	CSPGCL has submitted that as the MYT Order was issued on 31st March 2012, the utility had already made its contribution towards the Pension & Gratuity (P&G) Fund for the FY 2010-11. On account of this, the actual contribution made to P&G fund of Rs.77.52 Crs for FY 2010-11 was higher than the approved contribution of Rs.53.31 Crs as approved by the Commission in MYT Order. However the Utility has adjusted the excess payment made in FY 2010-11 in the payment to be made during FY 2011-12. Further CSPGCL has also contributed Rs.1.40 Crs being its share on account of holding company's contribution to the fund in six equal monthly instalments from November 2011-March 2012. CSPGCL has submitted a copy of month-wise contribution made by it in P&G fund during FY 2010-11 & FY 2011-12 (till January 2012).	The CSPGCL is directed to ensure payment to the gratuity and pension fund without fail in 12 equal monthly instalments. The compliance report along with the acknowledgment from Secretary of the trust must reach the office of the Commission by 15th of July / October/ January of the current financial year.
Functioning of newly created Companies / PPAs for existing stations The Commission had directed that CSPDCL and CSPGCL should sign detailed PPA and draft for the same should be submitted for the approval of the Commission by 30th November, 2011.	PPAs for HTPS Korba West including extension unit, KTPS Korba East, DSPM TPS, Hasdeo Bango HEP, Gangrel HEP & Sikasar HEP have been signed and copies of the same have been	CSPGCL is directed to sign PPA with CSPDCL in respect of Korba West Mini Hydel Plant and Kawardha Co-generation Plant also before end of August 2012. Further, CSPDCL should file petitions before the Commission for approval

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
	enclosed.	of PPAs with CSPGCL.
Installation of Weightometer in Generating Stations The Commission had directed the utility to submit the completion report for installation of weightometers at all its stations along with necessary by August 2011. Further, the company should ensure that all the installed weightometers are operational and should submit the status report regarding the functioning of the weightometers every six months.	Weightometers have been installed in all units of KTPS -Korba East, HTPS -Korba West, & DSPM TPS and are working satisfactorily.	Commission has accepted CSPGCL's submission in this regard
Energy Audit of Power Station The Commission had directed CSPGCL to submit half yearly status report of energy audit for each station.	The petitioner had submitted following status regarding the energy audit of its plants: KTPS –2nd Energy Audit was carried out by M/s SEE-Tech Solutions Pvt Ltd, Nagpur during September – October 2010. Final report has been received from consultants & corrective action undertaken. HTPS – Energy Audit for review of performance of station during the period May 2010 to February 2011 was carried out by M/s Synergy Management Services, Kolkata and corrective action has been taken. DSPM – Energy Audit was undertaken by M/s PCRA, Mumbai. Corrective measures are being undertaken as per findings of the report.	Commission has accepted CSPGCL's submission in this regard. However, CSPGCL's should submit to the Commission copy of final reports along with the reports regarding corrective measures taken / to be taken in respect of KTPS, HTPS and DSPM, by 31.07.2012. The CSPGCL is also directed to carry out energy audit of Hasdeo Bango Hydel power station and should submit to the Commission the final report along with the report regarding corrective steps taken / to be taken by 31.12.2012
Mock Billing The Commission had directed CSPGCL to make necessary arrangements for metering to start mock billing on the basis of ABT	Mock bill (of two part fixed & energy charge) has been raised for the month of July 2011 on the basis of monthly schedule received from	The Commission has observed that due to inter utility communication problems mock billing has not yet been started. This delay in

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
mechanism by July 2011. The necessary arrangements for metering shall be made in a timely manner for adherence to the targeted deadline.	SLDC for the said month. Mock bill for UI charges will be raised once data from SLDC is received from its UI accounts.	initiating mock billing is unacceptable. The utility is directed to start mock billing at the earliest but in no case later than July 2012. It is noted that to start mock billing CSPGCL may rely its own meter data and the schedule of declared capacity for preparation mock bills, in case it is unable to get certified data from SLDC. CSPGCL is directed to take needful action for providing data to SLDC in the desired format for mock billing by SLDC at their end in an economical and cost effective manner by not later than July 2012. For the purpose of mock billing CSPGCL may use the data from their billing meters or from the operational meters depending upon the feasibility and cost effectiveness.
Repair & Maintenance Expenses In tariff order for FY 2006-07, the Commission had directed the utility to maintain expenditure on building and civil works within 10% of overall R&M expenses. The Commission had directed the Company to follow the above provisions as guiding principle.		The Commission directs the utility to follow these provisions as guiding principles during FY 2012-13 also.

New Directives for CSPGCL

9.7 Station Heat Rate (SHR) and auxiliary consumption The Commission notes with concern that auxiliary consumption at KTPS Korba East and HTPS Korba West is much higher than the norms laid down in the Regulations. Commission also notes that the SHR in respect of KTPS is also higher than the norms laid down in the regulations. The utility is directed to engage a neutral reputed third party agency such as CEA/ CPRI/ NTPC / an experienced IIT etc. to conduct a study to assess reasonable performance parameters which are expected to be achieved. The scope of work etc may be submitted to Commission for appropriate consultation. Results of such expert study should be submitted to the Commission positively before 31.08.2012.

Directives to Transmission Company (CSPTCL)

Compliance to earlier Directives issued in previous tariff order

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
Mock Billing The Commission directed the company to raise the bill for the transmission charge (inclusive of incentive) for a month based on its estimate of TAFM (Transmission system availability factor for the month). Adjustments, if any, shall be made on the basis of the TAFM to be certified by the SLDC within 30 days from the last day of the relevant month. CSPTCL was also directed to submit monthly statement of the availability factor at the end of each quarter starting October 2011.	CSPTCL has replied that it is doing the mock exercise to calculate the TSAF as per the procedure defined in the said regulation. This exercise will take time and hence CSPTCL may please be allowed to bill the transmission charges without considering the TSAF for FY 2011-12 till the finalization of the exercise in this regard. From the FY 2012-13 and onward billing of transmission charges shall be done by considering the TSAF. CSPTCL has submitted the TSAF for FY 2010-11 and for the first six months of FY 2011-12 in the aforesaid petition.	The Commission has noted CSPTCL's submission in this regard. However, mock billing should be started and communicated to the Commission.

New Directives for CSPTCL

Meter Reading at EHV Substations

9.8 The Commission directs CSPDCL and CSPTCL to take joint meter readings (JMR) of the meters on the outgoing feeder to the distribution system of EHV substations every month. The transformation losses of the EHV transformers should also be recorded. Further, the meter reading of meters on the 33 kV side of the EHV transformer at the EHV substation should also be taken.

Directives to State Load Dispatch Centre (SLDC)

Compliance to earlier Directives issued in previous tariff order

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
State Energy Account The Commission had directed the SLDC to submit State Energy Account quarterly so that it can ascertain the exact quantum of energy input in the transmission system, inter-state import and export of electricity, energy sent to distribution periphery and the energy sales to EHV consumers. The state energy accounts for the quarter ending June 2011 should be submitted by July 15, 2011 and subsequent accounts should be submitted regularly on time.		CSPTCL has informed the Commission that it is regularly submitting data regarding transmission losses to SLDC to enable it to prepare State Energy Accounts. The Commission notes with concern that in spite of repeated directives SLDC is not submitting State Energy Accounts as required. The Commission considers this to be unacceptable. The SLDC is again directed to comply with the direction without any further delay and to positively submit the State Energy Accounts by 31.07.2012 and subsequent State Energy Accounts should be submitted regularly on time. Non submission of State Energy Accounts to the Commission within the time shall be treated as violation of the directives of the Commission and the Commission may initiate appropriate action in the matter against the SLDC.
Mock UI Billing The Commission directed the SLDC to carryout weekly mock billing for UI in respect of generating stations of CSPGCL from July 1, 2011 onwards up to March 31, 2012.		In continuation to the previous directive, SLDC is again directed that it shall initiate weekly mock billing for UI in respect of all generating stations of CSPGCL excluding small hydel plants and Kawardha co-generation plant after getting required data from CSPGCL. SLDC shall submit a report regarding starting of

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
		weekly mock billing for UI in respect of above plants of CSPGCL, before 31.10.2012.
Modalities for Merit Order Dispatch The Commission had directed the SLDC to submit the modalities of merit order dispatch in consultation with CSPDCL by June 30, 2011.		Commission directs SLDC to submit modalities of merit order dispatch in consultation with CSPDCL by 31.07.2012.

Directives to Distribution Company (CSPDCL)

Status of Compliance to Directives issued in previous tariff order

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
Energy Audit & DSM The Commission had directed CSPDCL to follow up with their consultant for submission of final report on DSM load study and energy conservation and take suitable action for DSM. The Commission had also directed CSPDCL to implement Bachat Lamp Yojana in the state while giving priority to BPL consumers.	CSPDCL has already submitted DSM study report prepared by consultant M/s ABPS to the Commission. The BLY has been implemented in Rajnandgaon district only and NIT for implementing the BLY scheme in rest part of State had been issued as per BEE tender documents. But no offer was received even after extending the due date three times. Now M/s EESL has been requested to take up project of CSPDCL as per guidelines of MoP.	Commission directs that CSPDCL should submit that action taken report in respect of DSM on half early basis to the Commission. Commission also directs that actions taken report in respect of Bachat Lamp Yojana should be submitted the Commission on quarterly basis.
Improvement in billing and collection efficiency The Commission had given several directives related to metering, billing and collection of current dues as well as arrears to streamline the process and minimize the time lag between the actual sale of electricity and receipt of revenue, etc. CSPDCL was directed to study and formulate a reasonable scheme of incentives and disincentives (penalty) for its staff and submit the same to the Commission.	The collection efficiency including EHV consumer for the period from April 2011 to September 2011 is 94.03%. 100% (1758 Nos.) CSPDCL has submitted that it has taken several initiatives such as AMR metering, installation of ATP machines, e-bill payment, spot billing. Further, it has submitted that at present 42 nos collection base franchisees are functioning in 7 districts in the state covered 682 villages with- 53205 consumers. Input based revenue (Feeder wise) franchisees also developed in state in 03 districts covered 424 villages with 30181 consumers; and tender notice has been floated for appointment of franchisee for (O&M) Baloda Bazar for input based ideal model franchisee. CSPDCL has submitted that it has adopted incentive scheme for their	The Commission has accepted CSPDCL's submission in this regard. The Commission directs that CSPDCL that energy bills are distributed among the consumers well in advance so as to enable them to make timely payment. Special care should be taken for timely distribution bills amongst EHV and HV consumers. The Commission has noted that CSPDCL has adopted incentive scheme for their employees based on better performance of AT&C losses. The Commission desires that such scheme should have suitable provisions for

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
	employee based on better performance of AT&C losses.	disincentive also.
Checking of power theft The Commission directed the CSPDCL to expedite measures to reduce the commercial losses i.e. pilferage and theft of electricity. CSPDL was also directed to prepare a detailed scheme with future planning in this regard to cover more theft prone areas and submit the same to the Commission by August, 2011.	The Vigilance Officers team and O&M Officer's teams are doing regular and surprise checking in the suspected theft prone area. In R-APDRP scheme, there is adequate provision of AB Cable laying programme in 22 major towns of State. NIT has been issued & tender procedure is under progress to operate & complete the work of scheme together. In addition to above 112.78 Km AB Cable has been laid in the theft prone area other than R-APDRP town /scheme area during FY-2011-12 further NIT has been issued to replace 1000 Km. bare conductor by AB cable in theft prone area of other than R-APDRP covered towns. Field officers have been instructed to deal theft cases according to Section 126 and 135 of the Electricity Act, 2003 and follow up all the guidelines in this regard strictly. It has also been instructed to regular follow up the each & every theft case filed in special court and their hearing prosecution in appropriate way. CSPDCL have program for laying AB Cable in ruler area. Tender is under process for laying 1000 Kms AB Cable at newly identified theft prone area other than R-APDRP project in the State.	The Commission has accepted CSPDCL's submission in this regard. Commission directs that action taken report in this regard should be submitted to the Commission on half yearly basis.
Distribution losses and AT&C losses The Commission directed that CSPDCL should prepare and submit circle-wise trajectory and target of loss reduction and collection efficiency for FY 2011-12 and	CSPDCL has submitted that as per directives of CSERC, action plan for loss reduction trajectory in distribution network has been	The Commission has accepted CSPDCL's submission in this regard.

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
FY 2012-13 along with an action plan to achieve the same by June, 2011. The Petitioner was also directed to report the performance against targets to the Commission on quarterly basis.	prepared. There is 32.09% T&D and 35.05% AT&C loss registered in FY 2011-12 up to Sep 2011 at 33kV Voltage level. CSPDCL has prepared circle wise trajectory and fixed target of loss reduction and improvement of collection efficiency for FY 2011-12 and FY 2012-13 along with an action plan.	Commission directs that action taken report in this regard should be submitted to the Commission on half yearly basis.
HT Consumer Cell The Commission directed that CSPDCL should take immediate action of procuring/ arranging the CT-PT units for HT consumers and ensure that the requests for HT connections do not remain pending for want of CTPT units and meters in future. The Commission directed CSPDCL to improve the functioning of HT cell and take other measures as well to ensure that the HT connections are released without any delay on part of the company.	CSPDCL has submitted that it has taken suitable action to release HT connection on priority basis. A total of 145 HT connections have been released in FY 2010-11 and 90 HT connections added upto Sept 2011. In addition to above 53 load enhancement cases have also been released in this year. Presently five MT & EE AMR (Meter Testing) divisions are working under Discom and these are looking after HT connections, commissioning / testing / analysing etc. works.	The Commission has accepted CSPDCL's submission in this regard
Timely and correct preparation of R-15 Statement The Commission directed CSPDCL in its previous tariff order to remove discrepancies in R-15 and prepare R-15 using SAP Software. The Commission also directed that the billing of all BPL connections should also be computerized during FY 2011-12 to avoid manual preparation of the bills.	CSPDCL has submitted that it has configured both HT & LT R-15 from SAP system as per consumer categories approved in the tariff order, About 10.5 lacs BPL consumer have been migrated in the SAP. For rest of BPL connection work is under progress.	The Commission has accepted CSPDCL's submission in this regard Commission directs all the balance BPL Consumers should be migrated in the SAP by 30.11.2012.

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
Consumer interface The Commission directed to ensure opening of new computerized call centres and ensure proper functioning of the call centre. The company was also directed to record and analyse the input data for improvement in functioning of the system.	CSPDCL has submitted that call centers are in operation at Raipur, Durg and Bhilai & Bilaspur town with satisfactory services. Vidhyut Samasya Nivaran Shivirs at D/c & Division level to quick disposal of consumer's problem in presence of higher officer are also organized to provide better consumer services from time to time. There is also a consumer grievance cell to take care of consumer's complaints.	The Commission has accepted CSPDCL's submission in this regard. Commission directs that the CSPDCL should consider to establish such call centres in other big town such as Raigrh, Ambikapur, Korba , Jagdalpur
Installation of Capacitors The Commission directed the utility to study the aspect of installation of capacitors in more than 3HP and up to 5HP agriculture pumps by CSPDCL and maintain it by collecting payment from cultivators and submit the proposal regarding this for the Commission's approval by September 30, 2011	CSPDCL has submitted that the feedbacks have been obtained from field offices in respect of installation of capacitors in more than 3HP and up to 5HP agriculture pumps by CSPDCL which indicates that it is difficult/even not possible due to lack of sufficient resources adding consumer's apathy to give fees for capacitor installation or post maintenance. This is a long term job that involves detection/ replacement of defective capacitors. Thus, the CSPDCL is unable to undertake this job.	The Commission has accepted CSPDCL's submission in this regard.
Installation and Maintenance of Equipment needed for HT Connections The Commission directed CSPDCL to evaluate the proposal for providing transformer, switchgears, etc for HT connections and undertake maintenance of these by charging monthly fee. by estimating costs associated with installation of these equipment for HT connections and monthly charges and submit a detailed proposal for approval by September 30, 2011. The CSPDCL was directed to study for fixing the average rate for extension on per HP basis for new connection of small	(A)CSPDCL has submitted that new HT connection can be served by providing transformer, switchgear along with ME etc only first time during new connection. But the maintenance of these equipments in successive period is not possible due to present insufficient field manpower and resources. (B)Although CSPDCL had made this proposal earlier, but in the present situation the CSPDCL doesn't like to take additional burden of maintenance of HT consumer's power transformer,	The Commission has accepted CSPDCL's submission in this regard at (A) and (B). In regard to (C) the Commission directs to re-evaluate the average cost and submit petition to the Commission by 31.08.2012

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
and cottage industries of rural areas.	switch gear & Substation including internal wiring & supply reliability etc. thereof. (C) In view of directives, three year's (2008-09 to 2010-11) data have been collected from all circle offices. Accordingly, study has been carried out by taking the expenditure incurred in new connections of LT Industrial Power & Non-domestic L&F having load upto 25 HP during these consecutive years. Expenditure for load approval cases & extension cases have been worked out separately for both IP & Non-DLF consumers. It is observed that average cost of three years comes to be as Rs. 3869 per HP.	
Scheme under R-APDRP The Commission directed CSPDCL to submit details on implementation of R-APDRP schemes such as proper planning and execution of scheme, especially schemes related to use of aerial bunch cables, HVDS, etc by October 2011. Further the company should ensure that the projects under R-APDRP are completed well within scheduled time so that the grants provided by the Central Govt. for these schemes are not converted into a loan, to avoid financial loss to the company.	R-APDRP scheme part A (IT implementation) has been sanctioned for 22 major towns of the State having population more than 30,000 & above. DPR for part B has also been sanctioned for 16 projects for above towns of Rs. 216.57crore by M/s PFC. Necessary NIT has been issued for all 16 projects to take-up the work on priority. There are provisions of 33/11kV line, substation , AB cables, conductor augmentation, additional DTR installation etc work in the estimate as approved by M/s PFC.	The Commission has accepted CSPDCL's submission in this regard. The Commission however again directs that the company should ensure that the projects under R-APDRP are completed well within scheduled time so that the grants provided by the Central Govt. for these schemes are not converted into a loan, to avoid financial loss to the company.
Meter Reading CSPDCL directed that meter reading for all agricultural and BPL consumers should be taken regularly and the billing should be done on the recorded value of the consumption. CSPDCL directed to ensure that correct and timely meter reading is done for all its consumers.	The CSPDCL has submitted that it is going to cover most of the reading works of urban & sub-urban area through spot billing system during 2011-12 & 2012-13. So far, total 2,01,831 nos. consumers are covered under spot billing programme. It has been proposed to take meter readings of all categories except industrial power & temporary	The Commission has accepted CSPDCL's submission in this regard.

Directives as per MYT Order	Status submitted by the Petitioner	Views of the Commission
CSPDCL directed to expedite the installation of ongoing work of AMR of HT consumers. The work of AMR for LT consumers having load 50HP and above shall be taken up on priority.	connection of rural areas on tri-monthly basis through outsourced meter readers in concerned area. All HT connections (1758 nos.) are covered with AMR facility to take reading/ monitoring purpose. In phase-I, total 1717 Nos. out of existing 5340 LT consumer having load of 50 HP & above are covered with AMR facility by M/s Secure Meters Limited Udaipur and Installation of AMR in rest of the LT meter is under progress. In phase-II, LT AMR installation works shall be extended for LT consumer having load 15 HP to 50 HP industrial & non domestic premises. This programme will cover approximately 10000 nos. of consumer during 2012-13.	

New Directives for CSPDCL

Monthly submission of R-15 and DCB Statements

9.9 The Commission directs CSPDCL to submit the monthly R-15 and DCB statements prepared by it for both the LT and HT consumers on regular basis.

KVAh Billing

9.10 The Commission has introduced KVAh billing for EHV consumers and certain HV consumers in FY 2012-13. The implementation of KVAh billing for other HV consumers has not been introduced in this financial year to enable these consumers to prepare for the modality of KVAh billing. The Commission directs CSPDCL to study the likely impact of introduction of KVAh billing on consumers and the revenue of the company. The same should be submitted to the Commission with the next tariff petition.

KVAh and KWh Consumption

9.11 The Commission directs CSPDCL to record both KVAh and KWh consumption of all HV and EHV consumers in its database. Further, the category wise KVAh and KWh consumption of HV and EHV consumers for FY 2012-13 should be submitted with the next tariff petition.

Meter Reading at EHV Substations

9.12 The Commission directs CSPDCL and CSPTCL to take joint meter readings (JMR) of the meters on the outgoing feeder to the distribution system of EHV substations every month. The auxiliary consumption of the EHV transformers should also be recorded. Further, the meter reading of meters on the 33 kV side of the EHV transformer at the EHV substation should also be taken.

Efficiency Parameters

9.13 The Commission directs CSPDCL to submit the SAIDI and SAIFI calculations for each circle every quarter.

10 ANNEXURES

Annexure 1 List of Objectioners

Sr. No.	Name of Objectioner
1	Office of the Electricity Department, Ngagar Palik Nigam, Raipur
2	Chhattisgarh Mini Steel Plant Association, 23/130, R.S.Shukla Road, Raipur-492-001 (C.G.)
3	Dr.Smt. Kiranmayee Nayak (Mayer), Nagar Palik Nigam, Raipur
4	Akhil Bhartiya Krantikari Kisan Sabha, Village & Post - Beltukri, Rajim
5	Chief Electrical Distribution Engineer, South East Central Railway, Bilaspur
6	Chhattisgarh Kisansabha, Rajya Samiti, Noorani Chowk, Raja Talab, Raipur
7	Office of the Nagar Palik Nigam, Bhilai
8	Lanco Solar Pvt. Ltd. (SEZ Unit), Village - Mehrumkhurd & Chawardhal, Dist-Rajnadgaon - 491444 (CG)
9	Shri Harshad Mehta (Former MLA - Dhamtari)
10	Dhamtari Gramin Avam Shahar Chakki, Haller Mill Zila Sangh, Dhamtari
11	Chhattisgarh Udyog Sangh, Punjabi Colony, Katora Talab, Raipur
12	Shri Lalit Kumar Singhaniya, M/s Indus Smelters Ltd., Raipur
13	Shri Inderchand Dhariwal, Shahar Congress Committee, Raipur
14	Shri Gopal Mukharjee, Member of State Advisory Committee CSERC
15	Zila Congress Committee, Bastar
16	ACB (INDIA) Limited, Korba
17	Central Bangali Association, Bilaspur
18	DIOCESE of Chhattisgarh, Church of North India, Raipur
19	Shri Ghanshyam Rajak, Zila Sah Sachiv, Bhartiya Communist Party, Zila Parishad, Bilaspur
20	Shri Shiva Mishra, Former Secretary, Chhattisgarh Pradesh Congress Committee, Bilaspur
21	Shri Prasoon Chaturvedi and others Bilaspur
22	Shri Nand Kashyap, Secretary - Bhartiya Communist Party, Bilaspur

Sr. No.	Name of Objectioner
23	Shri Anand Mishra, President - Janta Dal United, Bilaspur, Chhattisgarh
24	Sambhagiya Chember of Commerce and Industries, Bilaspur
25	Shri Rajkumar Anchal, Pradesh Pratinidhi - Chhattisgarh Pradesh Congress Committee, Bilaspur
26	Shri Ravindra Singh Thakur, President - Zila Shahar Committee, Bilaspur
27	Shri Anil Singh Chauhan, Vice President, (Indian Youth Congress) Bilaspur
28	Shibli Meraz Khan, President, Indian Youth Congress, Bilaspur
29	Shri Jasbir Gumbar, Chhattisgarh Chember of Commerce and Industries, Bilaspur
30	The Federation of Rice Millers, Bilaspur
31	Chhattisgarh Laghu Avam Sahayak Udyog Sangh, Bilaspur
32	M/s Saket Rolling Mills Pvt. Ltd., Surajpur
33	Shri Kounteya Jayaswal, Audyogik Prakshetra Ajirama, Manendragarh Road, Ambikapur
34	Zila Congress Committee, Sarguja (President - Shri U.S.Singhdev)
35	Bharat Ki Communist Party (Marksvadi) Shri Ashok Sinha, Secretary - Sarguja District
36	M/s Shri Sharda Aluminium works, Ambikapur
37	Shri Amarjeet Bhagat, MLA, Seetapur, District Sarguja
38	Shri Kailash Mishara, Godhanpur, Ambikapur, Sarguja
39	Ardh-Shahari Laghu Udyog Sangh, Sarguja, President Shri Surjeet
40	Indira Power Zen (Pvt.) Ltd., Nayanpur, Surajpur
41	Chhattisgarh Power Producers Association, Pandari, Raipur
42	Vedanta - Bharat Aluminium Company Ltd, Lodi Road, New Delhi
43	Chhattisgarh Chember of Commerce and Industries
44	Bhartiya Majdur Sangh, Choubey Collony, Raipur
45	Shri Girendra Agrawal, Shri Sunil Agrawal and others, Raveli Khopra
46	Smt. Manju Chandrahas Nayak, Member Zila Panchayat Raipur & Sthayee Samiti Sahakarita Avam Udyog, Raipur
47	Shri Ashutosh Mishra, Former President - Chhattisgharh Pradesh Yuvak Congress Sramik Vibhag, Kota, Raipur
48	Chhattisgarh Yuva Pragatishil Kisan Sangh, Kapsada, Tehsil - Dhamdha, District – Durg

Sr. No.	Name of Objectioner
49	Youth Congress Loksabha, Raipur (Shri Vinod Tiwari, President Youth Congress, Loksabha, Raipur
50	Shri Nandlal Hablani, President - Poha Murmura Nirmata Kalyan Samiti, Bhatapara
51	INDIAN BROILER GROUP, Baldeo Bag, Rajnandgaon - Shri Anjum Alvi, Executive Director
52	Chhattisgarh Steel Re-Rollers Association, Ramsagar Para, Raipur
53	Shri Dhanesh Patila, Former Minister, Rajnandgaon
54	Salasar Steel And Power Limited, G.E.Road, Raipur
55	Steel Authority of India Ltd., Bhilai Steel Plant - Shri Arun Bhandakkar, GM(Electrical)
56	Dr.Vivek Bajpai "Chika" (Secretary) Chhattisgarh Congress Committee ,Bilaspur
57	Shri Shyam Kabra, Urla Industries Association, Raipur
58	Coal India Pensioner Association, Bilaspur
59	Shri Virendra Pandey, Former President Chhattisgarh Finance Commission.
60	Shri Dilip Singh Chouhan, Upmahamantri - Chhattisgarh Pradesh Yova Congress Raipur
61	Shahar Zila Congress Committee, Gandhi Chouk, Raipur
62	Indian National Trade Union Congress INTUC

Annexure 2 List of Persons Who Attended the Public Hearing

Public hearing at Jagdalpur on 22.02.2012

Sl. No.	Name
1.	Shri Vijay Heliwal, Jagdalpur
2.	Shri Narsingh Rath, Zila Congress Committee, Jagdalpur
3.	Shri Akeel Ahemad, Tavkud, Jagadalpur
4.	Shri Madan Dubey, Bastar
5.	Shri Sanjeev Sharma
6.	Shri Shankar Thakur
7.	Shri Sanat Jain, Jagdalpur
8.	Shri Radha Krishna, Jagdalpur
9.	Shri Atirikt Shukla, Jagdalpur
10.	Shri Rajeev Sharma, Jagdalpur
11.	Smt. Jubeda Begum, Jagdalpur
12.	Smt. Shanti Salam, Dharampura, Kangoli
13.	Shri M.Venkat Rao, Jagdalpur
14.	Shri Sindarpal Singh, Jagdalpur
15.	Shri Munna Nayak, Jagdalpur
16.	Aniya Adhikari, Santoshi Ward, Jagdalpur
17.	Ku. Sushma Suta, Jawahar Nagar Ward, Jagdalpur
18.	Smt. Subhasini Mistri, Maharani Ward, Jagdalpur
19.	Smt. Sushama Kashyap, Jagdalpur
20.	Smt. Kavita Sahu, Jagdalpur

Public hearing at Ambikapur on 25.02.2012

Sl. No.	Name
1.	Shri Ajay Jangole
2.	Shri Tapas Banarjee
3.	Shri B.S.Kajariya
4.	Shri Kulwant Goyal, Surajpur
5.	Shri Kailash Mishra, Godhanpur, Ambikapur
6.	Shri Kontey Jayaswal, Manendragarh Road, Ambikapur
7.	Shri S.S.Vishvakarma, Baikunthpur
8.	Shri Sanjay Kumar Kesari, Subhashnagar, Ambikapur
9.	Shri Durgashankar Jayaswal, Bilaspur
10.	Shri Umeshwar Sharan Singh, Ambikapur
11.	Shri O.P.Agrawal, Ambikapur
12.	Shri J.P.Shrivastava
13.	Shri Shyamlal Jayaswal
14.	Shri Ishwar Jayaswal
15.	Shri Ranvijay Singh Tomar
16.	Shri Kartaram Gupta
17.	Shri Anangpal Dixit

Public hearing at Bilaspur on 24.02.2012

Sl. No.	Name	Sl. No.	Name
1.	Shri B.R. Malli	2.	Shri Beni Prasad Gupta
3.	Shri B.P.Choubey, R.K.Nagar, Bilaspur	4.	Shri Jugal Agrawal
5.	Shri Kabir Singh Thakur, Bilaspur	6.	Shri Ganesh Rajak
7.	Shri Surjeet Singh	8.	Shri Rishikesh
9.	Shri M.Israil	10.	Shri Manish Kedia
11.	Shri Arvind Garg	12.	Shri G.L.Tiwari
13.	Shri Harish Kedia	14.	Shri Manish Mishra
15.	Shri Dharmendra Patel	16.	Shri J.P.Shetty
17.	Shri N.Bhaskar	18.	Shri D.K.Chakravarty
19.	Shri Ashish Agrawal	20.	Shri A.Kiran Kumar
21.	Sant Saw Mills & Furniture	22.	Shri Shashikant Kesari
23.	Shri Sanjay Agrawal	24.	Shri Anand Mishra, Rajendra Nagar,
25.	Shri Ritesh Gupta	26.	Shri Nand Kashyap, Civil Line, Jarha
27.	A.K.Poha Murmura	28.	Shri Rajesh Sharma
29.	Shri Vijay Gore, Tifra, Bilaspur	30.	Shri Saiyyd Zafar Ali
31.	Shri Yogesh Gupte, Sirgitti, Bilaspur	32.	Shri Jasbeer Gubbar
33.	Shri Ajay Jajidia	34.	Shri Laxmi Narayan Vishvkarma
35.	Shri Naresh Singhania, Tifra, Bilaspur	36.	Shri Shiv Mishra
37.	Shri Ramsharan Yadav, Bilaspur	38.	Shri Shibli Meraz Khan
39.	D.K.Steel Industries, Sarkanda, Bilaspur	40.	Shri Shiva Mudliyar
41.	Shri S.K.Agrawal	42.	Shri Rajesh Kesari
43.	Shri Manish Kalgeriya	44.	Shri Siyaram Kaushik
45.	Shri Bhagwan Verma	46.	Shri Shekh Gaffar Khan
47.	Shri Manish Kashyap	48.	Shri Dinesh Ram Yadav
49.	Shri Chandrashekhar Nayak	50.	Shri Manish Pandey
51.	Shri Narayan Das Singh	52.	Shri Vijay Dubey
53.	Shri Anil Shivdasani	54.	Shri K.K.Nirnek
55.	Shri Vishnu Moorarka	56.	Shri Sudesh Nadani Thakur
57.	Shri Sardar Jasbir Singh	58.	Shri Dilip Lahariya
59.	Shri Prasoon Chaturvedi	60.	Shri Nilesh Madewar
61.	Shri Vishnu Yadav	62.	Smt. Mamta Sahu
63.	Shri Arun Tiwari	64.	Shri Mahesh Dubey
65.	Shri Rajkumar Anchal	66.	Shri Brajesh Gupta
67.	Shri Dhanush Singh	68.	Shri Yogesh Parteli
69.	Shri Anil Ray	70.	Shri Yogi S.Bakade
71.	Shri Shamsher Qureshi	72.	Shri Gopi Sharma
73.	Shri Javed Meman		

Public hearing at Raipur on 2.03.2012 and 3.03.2012

Sl. No.	Name	Sl. No.	Name
1.	Shri Shailendra Pratap Singh	2.	Smt. Sandhya Ravani
3.	Shri Alok Singh	4.	Shri Khapanram Rajwade
5.	Shri Vishal Singh	6.	Shri Praveen Gupta
7.	Shri Rahul Singh	8.	Shri Durga Shankar Gupta
9.	Shri Himanshu Jayaswal	10.	Shri Lakhan Singh
11.	Shri Rahul Gupta	12.	Shri Raju Singh
13.	Shri Nikhil Kumar Vishvakarma	14.	Shri Hemant Sinha
15.	Shri Manish Kesari	16.	Shri Alok Dubey
17.	Shri Nishant	18.	Shri Ajay Agrawal
19.	Shri Santosh Sarthi	20.	Shri Ashish Verma
21.	Shri Indrapal Tiwari	22.	Mohmmad Islammuddin
23.	Shri Atul Tiwari	24.	Shri Jagjeet Mishra
25.	Shri Shekhar Jhariya	26.	Shri Vinod Ekka
27.	Shri Rajendra Tiwari	28.	Shri Arun Mishra
29.	Shri Sushil Gupta	30.	Shri Dinesh Soni
31.	Shri Shivprasad Agrahari	32.	Shri Susheel Chaturvedi
33.	Shri Gorelal	34.	Shri Ravishankar Gupta
35.	Shri Krishna Gupta	36.	Smt. M.Toppo
37.	Shri Ramdev	38.	Shri Parvej Alam
39.	Shri Balkrishn Pathak	40.	Shri Irfan Siddiquee
41.	Shri Arun Singh	42.	Shri Govinda Nag
43.	Shri Rajesh Pandey	44.	Shri P.Singh
45.	Shri Santosh Singh	46.	Shri Shiv Kumar
47.	Shri Meraj	48.	Shri R.S.Yadav
49.	Shri Pramod Kumar Choudhary	50.	Ali Akbar Rizvi
51.	Shri Niranjan Kumar Roy	52.	Shri Ashok Dubey
53.	Shri Sanjay Vishvakarma	54.	Shri Rajat Verma
55.	Shri Rajeev Singh	56.	Shri Abhay Narayan Pandey
57.	Shri Sunil Agrawal	58.	Shri Anil Chouhan
59.	Shri Sanjay Gesi	60.	Shri Bhupendra Dubey
61.	Shri Ashvini Singh	62.	Shri Shankarlal Agrawal
63.	Shri Pawan Kumar Sahu	64.	Shri Navin Kumar
65.	Shri Ankita Singh	66.	Shri Hitesh Verma
67.	Shri Jafar Hyderi	68.	Shri Jaiprakash Chorasia
69.	Shri Amit Tiwari	70.	Shri Chandrakant Rathod
71.	Shri Mohd. Alishyam	72.	Shri Praveen Chavad
73.	Shri Amarjeet Bhagat	74.	Shri Rajesh Chavad
75.	Shri Danish Rafeek	76.	Shri Prabhat Chouhan
77.	Shri Gurpreet Singh Babra	78.	Shri Suneel Solanki
79.	Shri Raju Babra	80.	Shri Jayesh Vai

Sl. No.	Name	Sl. No.	Name
81.	Shri Govind Pratap Singh	82.	Shri Vijay Chouhan
83.	Shri Arvind Mishra	84.	Shri Deep
85.	Shri Arun Khakha	86.	Shri Pankaj Chouhan
87.	Shri Gauri Shankar	88.	Shri Hemant Gohil
89.	Shri Tukaram Divyadarshi	90.	Shri Amit Chavad
91.	Shri Sujeet Malakar	92.	Shri Jitendra Jethwa
93.	Shri Hanuram Rajwade	94.	Shri Dinesh Chavad
95.	Shri Gaiyaray Thakur	96.	Shri Harshit Padhiyar
97.	Shri Jagjeevan Das	98.	Shri Krishna Patel
99.	Shri Avadh Narayan Singh	100.	Shri Virendra Bhargav
101.	Shri Karn Singh	102.	Shri Deepesh Tank
103.	Shri Kiran Say	104.	Shri Dinesh Jethawa
105.	Shri Rasid Khan	106.	Shri Sumit Pradiyar
107.	Smt. Rita Lulla Khan	108.	Shri Naresh Singh Chouhan
109.	Shri Ajeet Kashyap	110.	Shri Dorelal Sahu
111.	Shri Ravindra Kashyap	112.	Shri Rakesh Agrawal
113.	Shri Vipin Kashyap	114.	Shri Manish Sharma
115.	Shri Ankesh Kumar	116.	Shri Madneel Agrawal
117.	Shri Santosh Kashyap	118.	Shri Suneel Bhai
119.	Shri Gudda Bhai	120.	Shri Girendra Agrawal
121.	Shri Harish Rahara	122.	Shri Kuldeep Kumar Dhanda
123.	Shri Dhananjay Agrawal	124.	Shri Pradeep Varu
125.	Shri Dilip Rathod	126.	Shri Madhav Sahu
127.	Shri Mahesh Tak	128.	Shri Ashok Surana
129.	Shri Pankaj Bhai	130.	Dr. Bhardwaj
131.	Shri Ganesh	132.	Shri Vijaylaxmi Naydu
133.	Shri P.K.Mua	134.	Shri Anamika Sahu
135.	Shri Shabbir	136.	Bhojkumari Yadu
137.	Shri Kumar Menan	138.	Smt. Anita Furan
139.	Shri Dilip Singh Chouhan	140.	Smt. Kalpana Patel
141.	Shri Vakar Abbas	142.	Smt. Chhaya Verma
143.	Shri Azhar Rahaman	144.	Smt. Sunita Sharma
145.	Shri Salman Khan	146.	Smt. Sakshi Sirmour
147.	Shri Salim Khan	148.	Shri Shyam Kabra
149.	Shri Arjun Sahu	150.	Dr. J.P.Saboo
151.	Shri J.Kamleshwar Rao	152.	Shri R.K.Verma
153.	Shri Gyanesh Sharma	154.	Shri Dinesh Kumar
155.	Shri Rakesh Chotre	156.	Shri Subhash Chouhan
157.	Smt. Asha Isrial Joseph	158.	Shri Anil Rathi
159.	Dr. Smt. Kiranmyee Nayak	160.	Shri Somprakash Giri
161.	Shri Amit Shrivastava	162.	Shri Vegendra Sonber
163.	Shri Madan Ladela	164.	Shri Daduram Sonkar

Sl. No.	Name	Sl. No.	Name
165.	Shri Ritesh Tripathi	166.	Shri Pannalal
167.	Shri Radheshyam Vibhor	168.	Shri A.L.Narayan
169.	Shri Anis Ahemad	170.	Shri Vikas Singh
171.	Shri Pratesh Raj Wadhm	172.	Shri Ambuj Singh
173.	Shri Nashyan Singh	174.	Shri U.P.Singh
175.	Shri Atul Varu	176.	Shri P.N.Singh
177.	Shri Mahendra Varu	178.	Shri Mhesh Parmar, Rajnandgaon
179.	Shri Krishn Kumendra	180.	Shri Shailesh Parmar
181.	Shri Bhupendra Chouhan, Rajnandgaon	182.	Smt. S. Lakshmi
183.	Shri Amit Tank	184.	Shri Manohar Singh
185.	Shri Amit Das, Rampur	186.	Shri Mahavir Taleds
187.	Shri Jasraj Jain, Dhamtari	188.	Shri S.K.Vya
189.	Shri Ramesh Dev, Dhamtari	190.	Shri LSS Rao
191.	Shri Shailendra Jain, Dhamtari	192.	Shri R.K.Khedia
193.	Shri Ashok Surana	194.	Shri Pankaj Singhal
195.	Shri Ravindra Jain	196.	Shri Vijay Bothus
197.	Shri Gautam Agrawal	198.	Shri Dhanesh Patila
199.	Shri Yash Agrawal	200.	Shri Virendra Pandey
201.	Shri H.Roy	202.	Shri Ashish Khandekar