Order on MYT Petitions for the year 2010-11 to 2012-13 and Tariff Order for FY 2011-12

of

Chhattisgarh State Power Generation Co. Ltd.
[Petition No. 53/2010(T)]

Chhattisgarh State Power Transmission Co. Ltd.
[Petition No. 49/2010(T)]

Chhattisgarh State Power Distribution Co. Ltd.
[Petition No. 51/2010(T)]

Chhattisgarh State Load Dispatch Centre
[Petition No. 09/2011(T)]

CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION
31st March, 2011

CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION

RAIPUR

Petition No.53 of 2010(T)

Petition No.49 of 2010(T)

Petition No.51 of 2010(T)

Petition No.09 of 2011(T)

Present : Shri Manoj Dey, Chairman

Shri B.K. Sharma, Member

In the matter of –

(1) Approval of annual revenue requirement (ARR) and tariff petition for 3 years MYT Control Period from FY 2010-11 to FY 2012-13 for Chhattisgarh State Power Generation Co. Ltd.

(2) Approval of annual revenue requirement (ARR) and tariff petition for 3 years MYT Control Period from FY 2010-11 to FY 2012-13 for Chhattisgarh State Power Transmission Co. Ltd.

(3) Approval of annual revenue requirement (ARR) for 3 years MYT Control Period from FY 2010-11 to FY 2012-13 and retail supply Tariff Petition for FY 2010-11 for Chhattisgarh State Power Distribution Co. Ltd.

(4) Approval of annual revenue requirement (ARR) and annual charges for 3 years MYT Control Period from FY 2010-11 to FY 2012-13 for State Load Despatch Centre.

ORDER

(Passed on 31.03.2011)

This order is passed in respect of the applications filed by the Chhattisgarh State Power Generation Company Ltd. (CSPGCL, for short), Chhattisgarh State Power Transmission Company Ltd. (CSPTCL, for short), State Load Despatch Centre (SLDC, for short) and Chhattisgarh State Power Distribution Company Ltd. (CSPDCL, for short) for approval of Annual Revenue Requirement (ARR, for short) for the financial year 2010-11 to 2012-13 (First Control period of MYT Regime). Further, this order is also passed in respect of generation tariff, transmission charges and annual charges respectively for CSPGCL, CSPTCL and SLDC for the period 2010-11 to 2012-13 and of CSPDCL for retail tariff of 2011-12, 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 three companies and the SLDC, after having considered all the information and documents filed with the said applications, the information made available to the Commission after technical validation, and after having heard the applicant companies, SLDC, the consumers, their representatives, members of State Electricity Advisory Committee and other stakeholders in the public hearings held by the Commission. This single order is for all the four petitions, since this involves true-up of ARRs for the year 2005-06 onwards up to 31.12.2008 which pertains to the period of

Chhattisgarh State Electricity Board (CSEB, for short) of which the petitioners are the successor companies.

2. 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 year 2009-10. The CSEB was required to prepare and get the Commission's approval, of a business plan for three years from 2009-10 to 2011-12, as the first control period of the MYT regime. On request of the CSEB the Commission did not insist for filing of MYT application and business plan in the year 2008-09, so as to allow it sufficient time to prepare for filing of MYT application. In the meantime, the Government of Chhattisgarh restructured the CSEB w.e.f. 01.01.09, 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 also had no option, but not to insist on compliance with the provision of the MYT Regulations and had accepted applications 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

2010-11 to 2012-13 and prepare for the MYT regime to be introduced from the year 2010-11. Subsequently, the Commission came out with CSERC (Terms and Conditions of Determination of Tariff according to Multi-Year Tariff Principles) 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.

3. The previous tariff order for the three companies including SLDC was passed on 30th May 2009 for the year 2009-10 as the tariff petitions were filed by the companies only in February 2009.

The CSPGCL, CSPTCL, CSPDCL and SLDC submitted business plans for capital expenditure of Rs.8746 crore, Rs.2500 crore, Rs.3701 crore and Rs.15 crore respectively (i.e. for a total amount of Rs.14962 crore) on 26th March,2010 for the three years of control period (i.e. 2010-11 to 2012-13). After prudence check and scrutiny the Commission approved the business plans for capital expenditure of Rs.8477 crore, Rs.2216 crore, Rs.2878 crore and Rs. 11 crore for CSPGCL, CSPTCL, CSPDCL and SLDC respectively (i.e. for total amount of Rs.13582 crore) on 1st June, 2010.

The tariff petitions for the year 2010-11 were also not submitted timely by the companies. The petitions that were due in November 2009 were submitted only in the month of October 2010. Since the tariff petitions, based on MYT principle, were filed by the companies for the first time, there were short-comings in the data/information, which were collected and the petitions could be registered only in the month of December 2010. It was felt by the Commission that by the time the applications for the tariff are scrutinized in detail, processed through regulatory provisions and the order is issued, the year 2010-11 for which the petition for retail tariff was filed by CSPDCL would be over. Hence, CSPDCL was asked to submit the proposal for retail tariff for the year 2011-12, so that at least the retail tariff for the year 2011-12 can be passed and made effective on time. CSPDCL expressed its inability to submit the retail tariff proposal for the year 2011-12 citing the shortage of time and stated that, the Commission, if it so desires, may process and determine the retail tariff for the year 2011-12 based on the data and information already submitted with the petition. Considering the situation and to enable issuance of the retail tariff order for year 2011-12 timely, we have decided to pass retail tariff order for the year 2011-12 along with generation tariff, transmission charge and ARRs for the control period on the basis of the information and data submitted with the petitions by the companies, and after processing the petitions through due regulatory provisions.

4. In the assessment of the revenue requirements of the three companies and SLDC for tariff determination, the Commission has followed its regulations i.e. CSERC (Terms and Conditions of

Determination of Tariff according to Multi-Year Tariff Principles) 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.

5. The companies have, in this petition, requested for final true-up of ARR of FY 2005-06 and 2006-07 for which statutory audit has been completed by the Accountant General (Audit) (AG audit, for short). The companies have also requested for provisional true-up of ARR for the year 2007-08 and approval of ARR for the 2008-09 (till 31st December, 2008), pertaining to the period of CSEB and approval of ARR for FY 2008-09 (January-Mar 2009) and provisional true up of the year 2009-10, pertaining to the period during which the three companies started functioning independently.

For this purpose the companies have jointly submitted the true-up data including accounts pertaining to the period of CSEB i.e. up to 31st

December,2008 and have submitted company-wise data for the period from 1st January, 2009.

The erstwhile CSEB functioned as an integrated electricity utility up to 31st December, 2008 and the true-up exercise for its period has to be done on the basis of the total expenditure as envisaged in the tariff order for the respective year. The Commission, in this tariff order, has carried out the final truing up for CSEB as a whole for the year 2005-06 and the year 2006-07 on the basis of the statutory audited accounts submitted to it. With regards to the year 2007-08, the audit of accounts is reported to be in process by AG audit. Meanwhile the companies have requested for provisional true-up for this year as well. However, since the expenditure of year 2007-08 has already been provisionally trued-up in the tariff order for 2009-10, the Commission does not find it appropriate to carry out second provisional true-up of ARR for the year 2007-08 and it will be finally trued-up with the next tariff petition if the AG audit for the year is completed.

In the previous tariff petition i.e. for 2009-10 the companies filed ARR for year 2008-09 based on the allocation of the common expenditure for erstwhile CSEB in the absence of their opening balance of the year 2008-09. Though the year 2008-09 was already over, the companies did not submit the required data for the whole of the year 2008-09. Only the operational performance of the generating stations for the entire year 2008-09 was submitted, the consumer category-wise sales and revenue data were furnished for the period till January, 2009 and capital investment and O&M expenditure till December, 2008. The Commission therefore did not find any merit in approving the ARR for the year 2008-09 on the basis of projected expenditure and that too projections based on allocation of expenses amongst the companies in the absence of opening balance for each of them. The Commission, therefore, decided to consider the ARR and revenue for the whole year 2008-09, while considering the next ARR and tariff petitions of three companies.

The Government of Chhattisgarh has now issued the revised transfer scheme (CSEB Transfer Scheme Rules, 31.3.2010) and on the basis of that the existing assets of CSEB have been allocated amongst successor companies Thus the opening balance of the companies have been decided and the provisional accounts for each company for the period January, 2009 to March, 2010 have been prepared accordingly. With the expenditure on various accounts during the year becoming clear, the Commission has now approved ARR for the whole year 2008-09 based on the provisional accounts of erstwhile CSEB for the period April to December, 2008 and provisional accounts for the three companies for the period January to March 2009 and taking into consideration their opening balance as per provision in revised transfer scheme. The Commission has approved the ARR for the year 2008-09 at Rs 2501 crore for all three functions – generation, transmission and distribution taken together after adjusment of surplus available.

The allocation of surplus revenue available at the end of 2008-09 has been carried out on the basis of average of expenditure of generation, transmission and distribution in the years 2006-07, 2007-08, 2008-09 and 2009-10.

The Commission has also carried out provisional true up of the ARR for the three successor companies separately for the year 2009-10 based on the provisional accounts of the year.

6. As per the petitioner’s submission, truing up of CSEB and successor companies till the end of the year 2009-10 results in a deficit of Rs.351 crore for all the companies taken together. The Commission, after prudence check, has approved a surplus of Rs.1620 crore at the end of the year 2009-10 for all the companies taken together , which, considering the allocation of surplus amongst the three successor companies till the year 2008-09 and surplus/deficit for the year 2009-10 results in a surplus of Rs.522 crore for CSPGCL, Rs.110 crore for CSPTCL including SLDC and Rs.988 crore for CSPDCL.

This surplus from previous years has been adjusted in the ARR for the year 2010-11 of these companies. As such no tariff order has been passed separately for the year 2010-11 since it is nearly over. The Commission had stated in its previous tariff order passed on 30th May 2009 for the year 2009-10 that the order will remain in force till 31.03.2010 or till the next tariff order of the Commission whichever is later. Thus, we have considered the generation tariff, transmission charge and retail tariff for the year 2010-11 as same as that of the year 2009-10 and tariffs have been revised only from the year 2011-12 for which the ARR has been determined in this tariff order. The projected remaining gap/surplus (at existing tariff) of each company at the end of the year 2010-11 has been adjusted in the ARR of the year 2011-12.

7. The generating company (CSPGCL) projected the ARR for the year 2010-11, 2011-12 and 2012-13 as Rs.2335 crore, Rs.2387 crore and Rs.2323 crore respectively. After due prudence check and scrutiny, the Commission has approved an ARR of Rs.2328 crore, Rs.2336 crore and Rs.2250 core for the year 2010-11, 2011-12 and 2012-13 respectively. After adjusting the ARR for the year 2011-12 for past surplus/gap, the Commission approves an average generation tariff for all plants for 2011-12 as Rs.1.92 per unit.

The transmission company (CSPTCL) has proposed ARR for the year 2010-11, 2011-12 and 2012-13 as Rs.524 crore, Rs.647 crore and Rs.894 crore respectively. After due prudence check and scrutiny the Commission has approved ARR of Rs.504 crore, Rs.601 crore and Rs.768 crore respectively for the three years. After adjusting the ARR for the year 2011-12 for past surplus/gap, the Commission approves transmission charge of Rs.0.27 per unit for the year 2011-12.

The SLDC has proposed ARR for the year 2010-11, 2011-12 and 2012-13 as Rs.13 crore, Rs.16 crore and Rs.17 crore respectively against which the Commission has approved ARR of Rs.10 crore, Rs.12 crore and Rs.13 crore respectively. The ARRs approved for the CSPGCL and the CSPTCL and SLDC have been taken into account in the assessment of ARR of CSPDCL since the CSPDCL has to bear the expenditure on purchase of power, the cost of transmission and SLDC charges.

8. The CSPDCL has proposed ARR of Rs.5238 crore, Rs.6176 crore and Rs 6667 crore for the year 2010-11, 2011-12 and 2012-13 respectively, against which, after due prudence check and scrutiny, the Commission has approved ARR of Rs.4155 crore, Rs.5707 crore and Rs.6146 crore respectively. The sharp increase in ARR for the year 2011-12 is primarily because of the impact of increase in tariff of CSPGCL and CSPTCL from the year 2011-12.

CSPDCL has submitted a revenue deficit of Rs.1854 crore by the end of 2010-11 on the basis of the prevailing tariff. The Commission on the other hand has arrived at a revenue surplus of Rs 556 crore for the year after adjusting surplus available to CSPDCL from the previous years. It has been estimated that with the prevailing tariff CSPDCL would get Rs.4212 crore during 2011-12 leaving deficit of Rs.1495 crore which after adjustment of surplus of Rs.556 crore from previous years would still leave a deficit of Rs.939 crore for the year 2011-12. To meet this deficit during the year an average increase in tariff of 22% will be required which will result in tariff shock to the consumer. Therefore, to avoid tariff shock to the consumer the Commission has decided to consider the average increase in tariff to the extent of 14% in the retail tariff of 2011-12, which would result in additional revenue of Rs 596 crore to CSPDCL in the year 2011-12. The remaining deficit of Rs.343 crore has been carried forward to the year 2012-13.

Accordingly, the average cost of supply for 2011-12 (considering only the treated gap) comes out to be Rs.3.78 per unit which has been approved by the Commission. In case the entire deficit of Rs.939 crore would have been recovered by increase in tariff during 2011-12 the cost of supply would be Rs.4.02 per unit.

9. In this order the Commission has approved the final true-up of ARR for the year 2005-06 and 2006-07, ARR for the year 2008-09 based on provisional accounts, provisional true-up for the year 2009-10, ARR of the three companies and SLDC for the years 2010-11, 2011-12 and 2012-13, generation tariff and transmission charges and annual charges for SLDC for the year 2010-11 to 2012-13 and the retail tariff for the consumers for the year 2011-12. This order shall remain in force till 31st March 2012 or till the next tariff order of this Commission, whichever is later. The revised tariff will be applicable after expiry of seven days from the first publication of notice by CSPDCL for the information to the consumers.

Since the CSERC (Terms and Conditions of determination of tariff according to multi-year tariff principles) Regulations, 2010 and the tariff proposal of CSPDCL 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.

10. 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 and the ARR of the companies.

11. 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 before implementation of the tariff order.

MEMBER　　　　　　　　　　　　　　　　　　　　CHAIRMAN

TABLE OF CONTENTS

Abbreviation	Description
A&G	Administrative and General
APTEL	Hon’ble Appellate Tribunal of Electricity
ARR	Annual Revenue Requirement
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Stations
COD	Date of Commercial Operation
CSEB	Chhattisgarh State Electricity Board
CSERC	Chhattisgarh State Electricity Regulatory Commission
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
DS	Domestic Service
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
PLF	Plant Load Factor

Abbreviation	Description
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 according to the provisions of the CSEB Transfer Scheme Rules, 2010 issued in supersession of the earlier notification dated 19.12.2008. The three power companies i.e. CSPGCL, CSPTCL and CSPDCL, and the SLDC have 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 have 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. Under the provisions of the Electricity Act, 2003, the mandate of determination of tariff is vested in the Chhattisgarh State Electricity Regulatory Commission (hereinafter referred to as the Commission).

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

1.2 Section 61 of the Electricity Act, 2003 (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 Commission for determination of the tariff applicable to generating companies and transmission licensees.

1.3 Section 62 of the Electricity Act, 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.

1.4 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.

1.5 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, 2004
- CSERC (Details to be furnished by licensee etc.) Regulations, 2004.
- CSERC (Terms and Conditions for Determination of Tariff) Regulations, 2006
- Guidelines for Power Purchase and Power Procurement Process, 2006
- Chhattisgarh State Electricity Grid Code, 2007
- CSERC (Grid Code_ First Amendment) Regulations, 2008.
- CSERC (Security Deposit_ First Amendment) Regulations, 2007
- CSERC (License) Regulations, (First Amendment) 2008.
- CSERC (Terms and conditions for determination of generation tariff and related matters for electricity generated by plants based on non-conventional sources of energy) Regulations, 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

1.6 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.

1.7 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 05, 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 as 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.

1.8 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.

1.9 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.

1.10 The companies (CSPGCL, CSPTCL and CSPDCL) and SLDC submitted their respective Business Plans to the Commission in March 2010, which were, after thorough scrutiny, approved by the Commission in June, 2010. The tariff petitions for the MYT period beginning in FY 2010-11 were, however, submitted by the companies only in October, 2010. Since the tariff petitions, based on MYT principle, were filed by the companies for the first time, there were short-comings in the data/information, which were collected and the petitions could be registered only in the month of December 2010. The petitions submitted by the companies CSPGCL, CSPTCL and CSPDCL were registered as Petition No. 53/2010(T), 49/2010(T) and 51/2010(T) respectively. The SLDC filed its MYT tariff petition in January, 2011 and was registered by the Commission as Petition No. 09/2011(T) in January, 2011.

1.11 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, 2005, 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, 2010 by CSPGCL & CSPTCL & on December 31, 2010 by CSPDCL. 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 January 21, 2011 for their comments.

1.12 The Commission received objections and suggestions from a total of 565 objections from 557 stakeholders on a variety of issues, which are detailed in the next section of this order.

1.13 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, Raipur & Bilaspur	23.01.2011
Dainik Bhaskar, Raipur & Bilaspur	23.01.2011
Hari Bhumi, Bilaspur	23.01.2011
The Hitvada, Raipur	23.01.2011
Desh Bandhu, Raipur	23.01.2011
Nai Dunia, Raipur	23.01.2011

1.14 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
04.02.2011	"Astha" Assembly Hall, Collector Parisar, Jagdalpur	9:30 AM to 1:30 PM (on petitions of CSPGCL, CSPTCL & CSPDCL including on retail tariff proposals for all EHT, HT & LT consumers)
08.02.2011	Jila Panchayat Assembly Hall, Ambikapur	10:00 AM to 2:00 PM (on petitions of CSPGCL, CSPTCL & CSPDCL including on retail tariff proposals for all EHT, HT & LT consumers)
11.02.2011	Conference Room, Revenue Board, Bilaspur	11:00 AM to 2:00 PM (On petitions of CSPGCL, CSPTCL & CSPDCL including on retail tariff proposals for LT consumers) 3:00 PM to 5:00PM (On retail tariff proposals for S.E.C.L., Railway and all EHT and HT consumers)
17.02.2011	Assembly Hall, New Circuit House, Civil Lines, Raipur	11:00 AM to 2:00 PM (on petitions of CSPGCL & CSPTCL) 3:30 PM to 5:30 PM (On petition of CSPDCL including on retail tariff proposals for all LT domestic, agriculture , LT industrial and non-domestic consumers)
18.02.2011	Assembly Hall, New Circuit House, Civil Lines, Raipur	11:00 AM to 2:00 PM (on retail tariff proposals for all HT consumers) 3:30 PM to 5:30 PM (for Bhilai Steel Plant, BALCO and on tariff proposals for all EHT consumers)

1.15 The Commission has also taken *suo-motu* decision to introduce a new consumption slab (0-100 units) in the Domestic Category from FY 2011-12 for the benefit of consumers with lower consumption. The public notice for this proposal was published in the leading newspapers of the state on 22.01.2011.

State Advisory Committee Meeting

1.16 A meeting of the State Advisory Committee, constituted under Section 87 of the Act, was convened on February 22, 2011 to discuss the tariff petitions and seek the advice of the Committee. The companies gave a presentation in the meeting on the salient features of the tariff application. Various aspects of the tariff application were discussed by the Members of the Committee in the meeting and following suggestions were given by the Members for consideration of the Commission:

(a) The tariff for public utilities like street lights and public water works should not be increased.

(b) The proposal of CSPDCL to levy additional surcharge on consumers residing in theft prone areas should not be accepted.

(c) The tariff for industries (including small scale industries) should not be increased as it will have an adverse impact on the industrial growth of the State. The proposal of kVAh billing (instead of kWh billing) for industrial consumers as submitted by CSPDCL should not be accepted.

(d) The distribution and transmission loss reported by the companies are high. CSPDCL and CSPTCL should make efforts to ensure reduction in the same.

(e) Instead of increasing the retail tariff rates, CSPDCL should be asked to improve the efficiency of its system. CSPDCL should improve its meter reading, billing and revenue realisation.

(f) The Commission may consider introducing telescopic tariff structure instead of non-telescopic tariff for domestic consumers.

(g) The proposal for increase in tariff for domestic consumers was also objected.

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) and Chhattisgarh State Power Distribution Company Limited (CSPDCL) filed separate petitions for approval of ARR and determination of tariff for MYT Control Period from FY 2010-11 to FY 2012-13. However, the petitions filed by all three companies 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 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 objectioners 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 Common to All Successor Companies

A) Contribution to Pension and Gratuity Fund and its Functioning

2.4 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. It is to be noted that the successor companies have not made any contribution to the fund in subsequent years and are deliberately showing that contribution to PF is increasing in the MYT period. On the contrary, the companies have claimed that during FY 2009-10 they have reportedly pumped Rs.416 Cr into the fund vis-à-vis approved contribution of Rs.300 Cr. Further 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.

Petitioner's Reply

2.5 Payment of pension and other terminal benefits to the employees of the organization is a legitimate responsibility of CSEB/Successor Companies as per terms of employment till 2004. Therefore, the companies cannot skip from this legal financial responsibility. The ARR of the companies is their annual budget thus such legitimate expenses are to be met through provisions under ARR.

2.6 The Commission has approved a total contribution of Rs.930 Cr. Till FY 2009-10, CSEB/ successor companies had contributed about Rs.790 Cr towards the fund with balance Rs.140 Cr to be contributed on the basis of availability of funds. Thus allegations of excess contribution to the fund are baseless. Further, the contribution of

Rs.200 Cr during FY 2005-06 has been shown in the books of CSEB accounts as provision only and carried forward as liability. The reason for not considering actual payment during FY 2005-06 was substantial amount of Fringe benefit tax which has been abolished subsequently. Pending liability of Rs.200 Cr shall be met in due course of time.

2.7 CSPDCL has appointed experts to study and report on management of P&G funds. CSPDCL also refuted claims of wrong doings and presented the following data for perusal of the Commission:

Table 3: Details of Contribution to Pension & Gratuity Fund (in Rs. Cr)

Financial Year	Lump sum contribution to Corpus of Trust	Monthly contribution from CSEB	Monthly payments to pensioners	Net income of Trust	Closing Balance of Corpus and Reserve & Surplus
2001-02	140.00	17.64	17.64	7.94	147.94
2002-03	-	35.47	35.47	9.04	156.98
2003-04	600.00	48.03	47.93	9.36	766.44
2004-05	400.00	58.08	58.08	32.29	1198.73
2005-06	-	74.21	74.22	57.80	1256.53
2006-07	100.00	76.27	76.27	102.18	1458.71
2007-08	100.00	88.45	83.61	130.83	1694.37
Less: Prior period adjustment due to change in method of recording of investment	(-) 12.19				
Net Balance of Corpus and Reserves as on March'08	**1682.18**				
2008-09 *	300.00	105.92	102.91	129.21	2114.41
2009-10	290.00	126.16	128.48	169.66	2571.75
Total	**1930.00**	**630.22**	**624.60**	**648.32**	

** Note: The payment to pensioners for FY 2008-09 includes Rs.4.84 Cr towards payment to pensioners for the month of March 2008*

Commission's View

2.8 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.

B) Working Capital requirement and its interest cost

2.9 The additional interest on account of working capital should not be allowed as pass through in ARR as proposed by all the companies during the MYT period. No such component was approved by the Commission in previous tariff orders and hence the same principle should be followed for the MYT period. Further discrepancies have been noted in interest on working capital requirements for the MYT period as filed by all three companies:

- Interest on Working Capital is calculated @ 11.75% on entire capital requirement without deducting the margin (equity).
- CSEB (all companies together) would have required only Rs.823 Cr as working capital and Rs.97 Cr as interest thereon; but when it is bifurcated into three companies, working capital requirement and interest cost has increased substantially to carry out the same business.

Petitioner's Reply

2.10 CSPDCL has submitted that during the tenure of erstwhile CSEB, working capital was required to be borrowed very often; however it was not claimed in advance. Since April 1, 2010, the working capital borrowing became the immediate and routine requirement and thus it is been claimed separately now. CSPGCL has further added that the provision for interest on working capital has been estimated in accordance with the CSERC's MYT Regulations 2010.

Commission's View

2.11 For determination of ARR and Tariff for the MYT Control period it has to be guided by the CSERC MYT Regulations, 2010, which allow for normative interest on working capital. The Central Commission has also made such provisions in their regulations.

C) Difference in true-up petition of CSEB submitted by CSPDCL and CSPTCL

2.12 There are discrepancies in true up petition for the period FY 2005-06 to FY 2008-09 (up to December 31, 2008) as submitted by CSPDCL and CSPTCL.

Petitioner's Reply

2.13 CSPTCL has submitted that the true-up petition in respect of period of erstwhile CSEB as submitted by CSPDCL should be treated as actual.

Commission's View

2.14 The Commission also noted that the true up petitions submitted by CSPTCL and CSPDCL were different with regards to methodology adopted for computation of Return on equity. However as against submitted by the petitioner, the Commission has considered the petition submitted by CSPTCL as the methodology for RoE submitted by them is more in line with the Commission's approach adopted in previous tariff orders.

D) Delay in MYT filing by the companies

2.15 There has been undue delay in filing of MYT petition by all three companies. The companies were supposed to file tariff petitions under the MYT principles by November 2009 so that new tariff order could take effect from April 1, 2010. However, the petitions were filed by December 2010 only. This raises questions on the current exercise of determination of retail supply tariff for FY 2010-11 as the tariff should have been applicable from FY 2010-11 while now it can be made applicable from FY 2011-12 only.

Petitioner's Reply

2.16 Commission had notified the new set of MYT Regulations on January 9, 2010. So it wasn't possible to file MYT petition prior to that. The tariff petition for MYT period by each company was filed in October 2010 but it was admitted by the Commission only in December 2010, which lead to further delay in the proceedings. There was also time lag in submission and admission due to the fact that the Commission considered it fit that provisional true-up for FY 2008-09 (January to March period) and FY 2009-10 should also be filed along with MYT petition.

2.17 The petitioner has also submitted that as per the decision of APTEL, in case of delay in filing of ARR petition and subsequent delay in tariff-enforcement, only carrying cost will be denied to the licensee and not the legitimate claim.

Commission's View

2.18 The Commission asked the petitioners to submit the tariff petitions timely. However, they filed the petitions in October 2010. The Commission had noted several discrepancies in the initial filing by the companies for which the Commission provided the companies timelines for rectification of deficiencies and additional information. However the companies submitted the same in December 2010, and thereafter the petitions were admitted. Further, the Commission considers the provisions made in the previous tariff order, Clause 6 Page iv, "ARR for the year FY 2008-09 has not been approved by the Commission. It will be scrutinized and approved on the basis of actual expenditure when the tariff petition for the year 2010-11 is submitted by CSPDCL." Without approving ARR of FY 2008-09 and completing True-up of FY 2009-10, it would have been inappropriate to finalize ARR for MYT period FY 2010-11 to FY 2012-13. Further, considering the above said order of APTEL and the provisions of the Act, the petitions were admitted.

E) Statutory Audit of Annual Accounts

2.19 The data for FY 2007-08, FY 2008-09 and also for the base year i.e. FY 2009-10 is not audited. Further the data provided as per provisional accounts varies greatly from that approved in previous tariff orders. In the absence of Statuary Audit, data provided may be unauthentic and suspicious. As per Clause 8.2.1.2 of the National Tariff Policy (NTP) empowers the SERCs to independently assess baseline data for each distribution circle of the licensee and complete such exercise by March 2007. Thus, the Commission should act on its own to get reliable information/data from the utilities.

Petitioner's Reply

2.20 CSPDCL has submitted that audit of accounts by the Auditor General (AG) is held as per a fixed schedule and any company or erstwhile CSEB has no say in this. It is possible that AG office started audit of the CSEB accounts late on account of delay in apportioning of assets and liabilities between CSEB and MPSEB. Further, the companies were established on January 1, 2009 only, which makes it impossible to provide financial accounts and other data such as O&M expenses for the last five years.

2.21 In addition, CSPGCL has submitted that audit of its accounts for post CSEB era by statutory auditors appointed by CAG is in advance stage and is expected to be completed shortly. For FY 2009-10, auditors have been appointed and audit shall be taken up by them soon thereafter.

Commission's View

2.22 The Commission agrees with the view of the objectioners and hence has not carried out the final true up for FY 2007-08 to FY 2009-10 in 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.

F) Quality of petitions and content

2.23 The quality of the contents and presentation of the petition submitted by the companies is very poor and it seems that this was done to conceal necessary facts and information.

Petitioner's Reply

2.24 Petitioner has submitted that the quality and presentation is comparable to the quality and presentation of the petitions filed by NTPC.

Commission's View

2.25 Wherever the Commission has noted any discrepancy in the petition or requirement for additional information, it has raised its concerns with the companies and had asked for additional information. The same has been highlighted and addressed appropriately in this order.

G) Combined vs. separate petitions

2.26 It was noted that consolidated statements of ARR and expenses of erstwhile CSEB are produced in the true up petition which does not allow comparison of individual entities with previous tariff orders. Further, ARR for FY 2008-09 has been produced in two parts –for period from April-December 2008 and for period from January-March 2009. In absence of segregated data, it is very difficult to compare any variance and to check efficiency/mal-functioning of the utility.

Petitioner's Reply

2.27 It was the direction of the Commission to obtain and file the true up of CSEB accounts from the custodian successor company i.e. CSPHCL. CSPDCL, CSPGCL and CSPTCL have filed the same accounts of the erstwhile CSEB for true up. Also, while technical parameters of functional performance of individual functions (G,T and D) were regularly submitted by the erstwhile CSEB separately, allocation of expenses was considered in CSEB's tariff petitions on the basis of certain assumption just to determine function-wise tariff at the time of restructuring of CSEB and to monitor a reasonable performance. The Commission may combine the two ARR components for FY 2008-09 after reasonable assumptions for combining the ARRs of all the three Companies for three months.

Commission's View

2.28 The Commission has aggregated the data submitted for the period April-December 2008 and January-March 2009 in their respective true-up petitions and has carried out a consolidated provisional true up for FY 2008-09 which has been incorporated in this order.

H) Income tax liability

2.29 The income tax liability of Rs.463 Cr for the erstwhile CSEB till December 2008 on account of non-applicability of Section 80 IA due to lapses in filing ITR timely must not be burdened on consumers.

Petitioner's Reply

2.30 The income tax liability of erstwhile CSEB is on account of a case pending in the High Court on its claim on exemption of income tax under the IT Act. This was an effort by the erstwhile CSEB to reduce burden on consumers from undue tax liability.

Commission's View

2.31 The Commission has not considered the income tax liability of erstwhile CSEB as it is subjudice. The same would be taken care of once the final decision is made in this regard.

Generation specific issues

A) Plant Load Factor (PLF)

2.32 CSPGCL has proposed the Normative Annual Plant Availability Factor (NAPAF) for its thermal generating stations at approx. 85% for the MYT control period as per the CSERC's MYT Regulations 2010. However, the actual PLF for its stations in previous years has been higher. This has resulted in under estimation of actual generation and hence increasing the cost per unit. Thus the Commission should allow a higher PLF than 85%, in accordance with past year's performance for all the generating stations of CSPGCL.

CSPGCL's Reply

2.33 CSPGCL has submitted that as per the EA 2003 and Tariff Policy, for determining generation tariff for state utilities, regulation framed by the State Commission is the governing provision. Hence, CSERC MYT Regulations should be followed in the matter of PLF.

Commission's View

2.34 The Commission has considered more or less the actual PLF achieved for the FY 2010-11. For the FY 2011-12 and FY 2012-13, the provisions of the CSERC MYT Regulations, 2010 have been followed.

B) Specific Oil Consumption

2.35 There has been a substantial increase in consumption of specific oil for Korba East and DSPM in past years. Owing to this, it has been proposed that while allowing the specific oil consumption for these thermal stations, the Commission considers the best of past 3 years.

CSPGCL's Reply

2.36 CSPGCL has submitted that best of last 3 years is a new philosophy. Tariff should be decided on the benchmark parameters as laid down in the CSERC MYT Regulations 2010 and any adjustment vis-à-vis the actual performance would be undertaken during truing up exercise.

Commission's View

2.37 The Commission has considered reasonable parameters while framing the CSERC MYT Regulations, 2010 and has followed the said Regulations in determining the ARR of CSPGCL for the control period.

C) Auxiliary Consumption

2.38 The norm for auxiliary consumption for the Korba East TPS should be in accordance to the CERC Tariff Regulations, 2009.

CSPGCL's Reply

2.39 CSPGCL has submitted that fixation of intra-state generation tariff is the prerogative of the State Commission and not of Central Commission. Thus the norms for auxiliary consumption for each station are in accordance with the CSERC MYT Regulations 2010.

Commission's View

2.40 The Commission has considered reasonable parameters while framing the CSERC MYT Regulations, 2010 and has followed the said Regulations in determining the ARR of CSPGCL for the control period.

D) Non-compliance of the directives of the Commission

2.41 The Commission had directed CSPGCL to install weightometers at all of its generating stations and also to carry out energy audit of all its power stations and submit action report on the same. However CSPGCL has not shown any action towards this in its MYT petition.

CSPGCL's Reply

2.42 CSPGCL has submitted that the compliance report towards the directives of the Commission has been submitted from time to time and it is not mandatory under any of the regulations to reproduce such reports in the petition.

Commission's View

2.43 The Commission has considered this issue separately in the Directives Section of this order.

E) Discrepancy in Quantum & Cost of Power from CSPGCL

2.44 In the MYT Petitions for FY 2010-11, all three licensees i.e. CSPGCL, CSPTCL and CSPGCL have reported different quantum of power sent-out by CSPGCL. Similarly, the cost of power as mentioned by CSPGCL and CSPDCL are also different.

CSPGCL's Reply

2.45 CSPGCL has submitted that it has estimated the generation from each station on the basis of normative parameters in accordance to the CSERC's MYT Regulations 2010. CSPTCL, on the other hand, has proposed on the basis of PLF @ 85% and auxiliary consumption @ 9%, hence there is variation in power sent out from CSPGCL and that available for transmission by CSPTCL. However, CSPTCL has clarified below that the generation sent out as submitted by CSPGCL would be the final submission for FY 2010-11. Further the quantum of power sold by CSPGCL and power purchase by CSPDCL is same, just that 11942.85 MU is round off to 11943 MU.

2.46 With regards the cost of power purchase from CSPGCL stations, CSPGCL has submitted that generation tariff is based on its ARR without statutory taxes and duties (being a pass through to the beneficiary), while for distribution licensee the cost implies generation tariff plus taxes and duties.

Commission's View

2.47 The Commission had noted some discrepancies in the petitions submitted by the three companies. However, the Commission is satisfied by the justification provided by the companies.

F) Price and transportation charges of coal

2.48 Coal Prices projected by CSPGCL during FY 2010-11 are very high and unrealistic. There are a lot of anomalies in the coal prices and transportation charges proposed by CSPGCL for FY 2010-11, as summarized below:

- Coal price at DSPM is very high and no reason for variance is given.
- Surface transportation charges are already charged by SECL but again added by CSPGCL.
- Transportation charges are also varying and are very high for DSPM and no reason for variance is given.
- Coal prices mentioned as weighted average price of Jan-March 2010 are on much higher side as compared to actual SECL Price Structure.
- Annexure III in the True-up Section indicates that there are no Surface Transportation Charges for Korba East but CSPGCL has shown such charges.
- CSPGCL has not reported levy of Clean Energy Cess of Rs.50/MT since July 1, 2010 which shows its lack of sincerity while preparing the Petition.

CSPGCL's Reply

2.49 CSPGCL has submitted that the surface transportation charges (STC) levied by Coal India and transportation charges shown in the petition are two distinct heads. STC is levied by SECL when the distance between the mouth of the mine and loading point is higher than pre-defined limit, while the transportation charge is the cost of transportation incurred directly by the purchaser for carrying coal from loading point at SECL end to the unloading point at the power station. Further the non-applicability of STC at KTPS as per quoted circular, CSPGCL has submitted that the circular indicated applicability at that point of time and that too only with respect to Manikpur mines which have dedicated linkage for KTPS. KTPS coal is also procured from other mines to meet out quantity shortages. Further with passage of time, the distance and applicability also changes.

2.50 Regarding higher coal cost at DSPM, it may be noted that the fuel is transported by Indian Railways in case of DSPM, while for other stations there are other arrangements such as own railway line or conveyor system. Thus the coal brought to DSPM also attracts additional entry tax, freight and engine shunting charges as payments to Indian Railways. Further higher sizing charges are applicable for DSPM at Rs.61 per ton instead of Rs.39 per ton for other thermal stations. CSPGCL has also submitted copy of coal bills to the Commission for verification of its claim.

2.51 The imposition of clean energy cess is w.e.f. July 1, 2010, while CSPGCL was constraint (as per MYT Regulations 2010) to provide values in prescribed formats for the month of January - March 2010, hence the same has not been incorporated in the MYT petition.

Commission's View

2.52 The Commission has addressed this issue while determining the ARR and tariff for MYT period for CSPGCL in this order.

G) Transit & Handling Losses and Calorific Value of Coal

2.53 The objections/suggestions submitted regarding proposed transit losses and calorific value of coal for the thermal stations for MYT period are:

- At HTPS and Korba (E) Power Stations transit losses are increasing which is not acceptable and need thorough investigation.
- High transit losses due to reluctant approach of CSPGCL are not acceptable and should be loaded on the utility itself. Thus CERC norm for transit loss @ 0.3% for pithead stations should be accepted for all CSPGCL stations.
- The resultant impact of installing weightometers at Korba (W) was that the transit & stacking losses, earlier estimated to be 2%, actually came down as low as to 0.2%. Therefore, it will not be justifiable to put the losses and cost being incurred because of delay in installing weightometers in power stations on the shoulders of consumers.
- A prudence check is required while ascertaining GCV of Coal received at various generating stations.

CSPGCL's Reply

2.54 CSPGCL has submitted that it has prepared the MYT petition in accordance with the CSERC's MYT Regulations 2010. Accordingly transit losses are also considered as per norms. It further stresses that at the time of tariff fixation, benchmark norms fixed in the Regulation have to be considered.

2.55 Regarding calorific value, CSPGCL has submitted that the values indicated by the objector are factually incorrect and do not match with the actual calorific value.

Commission's View

2.56 The Commission has considered reasonable parameters while framing the CSERC MYT Regulations, 2010 and has followed the said Regulations in determining the

ARR of CSPGCL for the control period.

H) Station Heat Rate

2.57 Station Heat Rate for FY 2010-11 has been projected to be on higher side from base year i.e. FY 2009-10. This has been done in order to increase generation cost, hence should not be allowed.

CSPGCL's Reply

2.58 CSPGCL has replied that the concept of base year data is applicable only for working out the O&M cost projections for such plants which are not covered with normative cost criterion as laid down in the CSERC's MYT Regulations 2010. It is not applicable for already notified norms of operation including PLF, SHR, aux. consumption, specific oil consumption, etc. Hence the SHR for all its thermal stations has been considered as per the above mentioned regulations.

Commission's View

2.59 The Commission has considered reasonable parameters while framing the CSERC MYT Regulations, 2010 and has followed the said Regulations in determining the ARR of CSPGCL for the control period.

I) Price and calorific value of Secondary fuel

2.60 Price of secondary fuel varies greatly for different stations but their calorific value remains same as projected for FY 2010-11.

CSPGCL's Reply

2.61 CSPGCL has submitted that price of oil varies during the year as it is purchased at different times by different stations and oil prices are not constant over the year. Hence there are minor deviations in prevailing rates. In addition, HFO supply to HTPS is by way of railway rake and as it is inter-state transport, entry tax of 10% is further attracted on the purchaser. The calorific value, on the other hand, for HFO & LSD is approx.10000 kcal/litre and hence is taken as constant across stations for the MYT period.

Commission's View

2.62 The Commission has considered the reasonable data after prudence check.

J) O&M expenses

2.63 CSPGCL has proposed an increase of 42% in O&M Expenses in FY 2010-11 over previous year. However total generation from all stations of CSPGCL is proposed to be reduced by 1% in FY 2010-11 over previous year. Thus increase in O&M cost should is not justified.

CSPGCL's Reply

2.64 O&M expenses for various power stations have been worked out in accordance to the CSERC's MYT Regulations 2010 and the prescribed formats.

Commission's View

2.65 The Commission has considered the provisions of the CSERC MYT Regulations, 2010 and the reasonable data after prudence check.

Transmission specific issues

A) Transmission losses

2.66 Transmission losses projected by CSPTCL for FY 2010-11 i.e. 4.60% are high in comparison to actual loss levels during past years from FY 2004-05 to FY 2007-08. Further the estimation of transmission losses for FY 2010-11 is not done properly and is not made public as per Form 20. It is to be noted that the approved transmission losses in neighboring state of Madhya Pradesh are very low. Thus the transmission losses for FY 2010-11 should be lower than the approved transmission loss for FY 2007-08 i.e. 4.03%.

CSPTCL's Reply

2.67 CSPTCL has replied that the transmission losses mainly depend upon a) increase/ decrease in energy demand across the state; b) fluctuation in spatial distribution of the load; and c) fluctuation in power factor. However over the years, CSPTCL has maintained the transmission losses at 4.65% during FY 2009-10 as against target of 4.90% by the Commission. Efforts are being made to reduce losses further by augmenting the CSPTCL's transmission network. Further, the transmission losses for the years FY 2007-08 to FY 2012-13 have already been provided in Form 21.

Commission's View

2.68 The Commission has addressed this issue while determining the ARR and tariff for MYT period for CSPTCL and has considered appropriate data after prudence check.

B) Transmission charges

2.69 CSPTCL has increased transmission charges by 100% for FY 2010-11 as against the approved charges for FY 2009-10 i.e. Rs.0.15 per unit. This is a very huge increase and should not be allowed.

CSPTCL's Reply

2.70 CSPTCL has submitted that the MYT petition for the control period FY 2010-11 to FY 2012-13 is in accordance with the CSERC MYT Regulations 2010, which clearly specifies norms for working out the fixed cost for Transmission Company.

Commission's View

2.71 The Commission has considered the provisions of CSERC MYT Regulations, 2010.

C) Operation & Maintenance (O&M) costs

2.72 The proposed O&M expenses during FY 2010-11 towards 33kV network i.e. Rs.88.50 Cr is very high. The major increase is due to the proposed increase in base year employee cost i.e. FY 2009-10 of 66% vis-à-vis the approved employee expenses for FY 2009-10, which is very high. Further proposed additional provision for wage revision and contribution towards pension and gratuity fund of Rs.44.66 Cr has also increased the employee cost substantially. Such unprecedented increase in employee costs should not be allowed.

CSPTCL's Reply

2.73 CSPTCL has submitted that O&M expenses proposed for the MYT control period pertaining to the 33 kV bays existing in the EHV grid substation are in accordance with the norms prescribed in the CSERC's MYT Regulations.

2.74 With regards to employee cost for FY 2009-10, CSPTCL has replied that the consolidated expenditure on wages/salary for FY 2009-10 have increased mainly on account of hike in dearness allowance and pensioner's gratuity payment. Owing to this, a provision towards wage revision amounting to Rs.98 Cr for all the companies has been made in accounts vide order no. 1196 dated April 5, 2010 and subsequent 8% additional pay w.e.f. April 1, 2009. Thus CSPTCL has added a provision of Rs.12.37 Cr for wage revision in the employee expenses during FY 2009-10, as although the orders for revision for wages was issued in FY 2010-11, but this was effective from April 1, 2009.

2.75 CSPTCL also submitted that the credit under employee cost is due to allocation of expenses of combined services to other companies/holding company. During transition period, civil department was working under Transmission Company and therefore, employee costs of civil dept. have been allocated to the other companies by crediting to the employee cost.

2.76 Further an additional contribution of Rs.44.66 Cr has been made in the pension and gratuity fund on account of huge gap between actual corpus of pension and gratuity fund and requirement as per actuarial report and also keeping in view the further increase due to wage revision.

Commission's View

2.77 The Commission has considered the provisions of CSERC MYT Regulations, 2010 in determining the O&M expenditure.

D) Discrepancy in quantum of power transmitted by CSPGCL

2.78 The projected quantum of power sent out during the MYT control period from CSPGCL's stations is not in accordance with the power projected to be transmitted by CSPTCL during MYT period.

CSPTCL's Reply

2.79 CSPGCL has projected the generation from its stations during the MYT control period at Normative Annual Plant Availability Factor (NAPAF) and normative auxiliary consumption as per the CSERC MYT Regulations, 2010. However CSPTCL has proposed the power availability during MYT period from CSPGCL based on 85% PLF and 9% auxiliary consumption. Due to the above reason there has been a discrepancy in the values provided. However, CSPTCL has clarified that the annual power availability for the transmission system from CSPGCL stations during MYT period is as per the normative generation parameters as submitted by CSPGCL.

Commission's View

2.80 The Commission appreciates the concerns raised by the objectioner and the issue has been addressed appropriately in this order.

E) Depreciation of Transmission Company

2.81 The methodology adopted for estimating depreciation for MYT period by CSPTCL is based on WDV method to save tax. However this causes an artificial revenue loss in ARR and thus increases the burden on consumers. This should not be allowed.

CSPTCL's Reply

2.82 CSPTCL has submitted that it estimated depreciation for the MYT period based on both SLM and WDV method. The WDV method was adopted while preparing provisional accounts for FY 2009-10 as per the Company's Act. However, CSPTCL has submitted that for estimation of the ARR, depreciation may be arrived by taking SLM method in accordance with the MYT Regulation.

Commission's View

2.83 The Commission has considered the provisions of CSERC MYT Regulations, 2010 for determining depreciation.

F) Non-compliance of Directives of Commission

2.84 It was alleged that CSPTCL has not produced the quarterly compliance reports in accordance with the directives given by the Commission.

CSPTCL's Reply

2.85 CSPTCL has submitted that as directed by the Commission in para 8.3.1.1 of Tariff order of 2009-10, it is in the process of obtaining quarterly state energy account from SLDC.

Commission's View

2.86 The Commission has considered this issue separately in the Directives Section of this order.

Distribution specific issues

A) Proposed retrospective effect of new tariff

2.87 CSPDCL has proposed that the revised (new) tariff for FY 2010-11 to be made effective from a retrospective date. This should not be allowed as it is against the stand taken by the Commission in its previous Tariff Order for FY 2009-10 which clearly states as under:

"In this order the Commission has approved the ARR of the three companies for FY 2009-10 and has determined generation tariff, the transmission charges and the retail tariff for the consumers for the current year. This order shall remain in force till 31st March 2010 or till the next tariff order of this Commission, whichever is later."

CSPDCL's Reply

2.88 CSPDCL has submitted that the Commission should consider the new retail tariff of CSPDCL to be made effective with retrospective effect from April 1, 2010.

Commission's View

2.89 As per Clause 10.9 of CSERC MYT Regulations 2010- "*tariff shall take effect only after minimum seven days from the date of such publication*", the Commission has determined the retail tariff for FY 2011-12 to be effective after seven days from the date of publication by CSPDCL.

B) Cross subsidy

2.90 While fixing tariff for MYT period, it is proposed to ensure tariff stability for the consumers or at least provide for a tariff cap approach especially for those categories (HT categories) which are cross subsidizing LT categories. Further, tariff stability is essential for power-intensive HT industries such as steel industries as any tariff hike will give them a huge shock which they won't be able to sustain. This would make the HT industries move away from CSPDCL's supply.

2.91 Further as mandated by the EA 2003 and National Tariff Policy, cross-subsidies should be progressively reduced and should be +/- 20% of cost of supply. Hence, there is scope of significant reduction in the tariff applicable for HT categories (subsidising categories). Further, the Commission had also directed in its Tariff Order for FY 2005-06 that tariff should progressively reflect cost of supply and reduction & elimination of cross subsidies should be done within the period specified by the Commission in accordance with Section 61 of EA 2003.

2.92 Also, agriculture tariff may be increased in a manner so that in the next five years, commencing FY 2005-06, the tariff progressively reflects at least 75% of the cost of supply. The Commission had also noted that a balance in tariff setting between subsidized and subsidizing categories needed to be maintained. However none of these principles have been followed by CSPDCL.

2.93 Further it is to be noted that while calculating cross subsidy charges, CSPDCL has reported average supply rate of HV Categories as Rs.5.20 per unit and cross subsidy surcharge as Rs.0.82 per unit. But Form R-16 shows that HV Categories will provide revenue of Rs.2,456 Cr on consumption of 4.645 MU implying an average supply rate of Rs.5.29 per unit and Cross Subsidy Surcharge of Rs.0.91 per unit.

CSPDCL's Reply

2.94 CSPDCL has submitted that it has tried to adopt a policy of reduction of cross subsidy as far as possible. However, it is to be noted that the steel industry category despite being a group of HT industries has been availing cross subsidized tariff which was objected many times by other industrial consumers. Besides, this concessional tariff was wrongly utilized by some steel industries having captive power plants during volatile electricity market conditions. Therefore, it was considered appropriate to raise the tariff of steel industries to reduce the burden of cross subsidies on other industries.

2.95 CSPDCL further submits that Cross subsidy is never decided on the basis of cost of supply, but on the basis of social requirements. However it is to be noted that CSPDCL has already undertaken the study for determining the actual cost of supply for each consumer category and voltage levels and has hired independent consultants for the same. Once the results of the study are obtained, CSPDCL will submit it to the Commission for approval and then only will it be available for implementation. 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.

2.96 But this exercise is of academic interest, 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 has 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.

2.97 CSPDCL has submitted its proposal in compliance to the mandate of NTP to the extent possible. The tariffs of highly cross subsidized categories are proposed to be increased in higher proportion. CSPDCL has proposed a 140% hike in agriculture tariff from Re.1.00 per unit to Rs.2.40 per unit.

2.98 It is the prerogative of the Govt. to provide subsidy for a particular segment or person. Normally the state governments provide subsidies on social and economical grounds to the needy, but no one can claim that because state governments provide the subsidy to one particular class of consumers, therefore government should provide the same subsidy to each class. State governments normally do not provide subsidy to industrial consumers, but Chhattisgarh government has provided subsidy to Steel Industries.

2.99 At present Chhattisgarh government is not providing subsidy to any consumer, however the electricity bills of BPL consumers up to 30 units per month and energy charges of agriculture consumers up to 5 HP pump entitle for relief under Krishak Jeevan Jyoti Yojna where up to 6000 units per annum are reimbursed to CSPDCL as per prescribed tariff.

2.100 The issue of cross subsidy surcharge is irrelevant to the Railways because it is not availing power under open access in Chhattisgarh. The proposal of cross subsidy surcharge for HV category of consumers @ Rs. 0.91 per unit is correct and should be considered as the correct assumption.

2.101 Further, the Commission has modified its directions in orders following FY 2005-06 and the erstwhile CSEB and CSPDCL have tried to comply with these directions to the best possible extent.

Commission's View

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

C) True-up for FY 2009-10

2.103 The increase in controllable costs on account of true up exercise should not be pass-through in ARR as this amount to safe-guarding interest of the licensees while passing the burden to consumers. Thus deficit of Rs.412 Cr on account of true up of revenue and expenses for FY 2009-10 should not be allowed as pass-through.

CSPDCL's Reply

2.104 Determination of tariff is based exclusively on the estimates which is always subject to change as per actual. This is the reason for undertaking true up on account of actual situation as prescribed under the Regulations. Also, a true up of previous accounts can only be undertaken by the Commission as per provisions of the Regulations under which the tariff order was issued. Therefore, the provisions of MYT Regulation 2010 have no relevance to the true up of previous accounts whether of CSEB or of successor companies. Thus the loss incurred by CSPDCL is predominantly on account of not increasing the tariff of CSPDCL by the Commission despite substantial increase in power purchase cost from CSPGCL, as approved by the Commission in previous tariff orders. The proposed deficit of Rs. 412 Cr may kindly be considered subject to prudent validation by the Commission.

Commission's View

2.105 The Commission has examined the data submitted by the petitioner. After due prudence of this data it has carried out a provisional true up for the year which shall be subject to a final true up in the subsequent orders.

D) Revenue surplus/deficit

2.106 The approved revenue surplus for FY 2009-10 amounting to Rs.231 Cr as per Tariff Order 2009-10 has not been accounted for by CSPDCL while reporting the loss of Rs.412 Cr during FY 2009-10 in its present petition. Any previous surplus or loss should be adjusted over a period of time i.e. next three years in this case. Therefore, making adjustment of previous loss in FY 2010-11 only is not acceptable.

2.107 Further, during the MYT period, CSPDCL has projected a revenue deficit of Rs.1506 Cr and Rs.1,880 Cr during FY 2010-11 and FY 2011-12 respectively at prevailing tariff charges. Since FY 2010-11 will be over by the time tariff order is passed, CSPDCL should propose how it will meet the earlier deficit of Rs.1918 Cr (412 + 1,506) in FY 2011-12 when it is already projecting a deficit of Rs.1880 Cr for FY11-12. Losses of Rs.1,506 Cr during FY 2010-11 should not be loaded on consumers as they are a result of delay in filing the MYT petition.

CSPDCL's Reply

2.108 Petitioner has submitted that Rs. 231 Cr was already deducted from the ARR of CSPDCL during 2009-10 and should not be adjusted during the true up of losses for FY 2009-10. Further the proposal to avail the complete benefit of surplus in one stroke but recover deficit in phased manner is not acceptable.

2.109 The revenue deficit for the FY 2009-10 is on actual basis and will not change under normal circumstances. However, the deficit for future years is a projection and is subject to change as per actual, but sizable loss will indeed accrue till the revision of tariff occurs. Thus, it has been requested to the Commission to decide how to adjust it in future ARRs. The deficit in revenue is not merely on account of delay but also on account of disallowing CSPDCL to recover the increase in power purchase cost from its consumers and also on account of recovery of CSEB's surplus from the CSPDCL's ARR alone. All these reasons have led to accumulated losses to CSPDCL.

Commission's View

2.110 The Commission has taken a reasonable view on this matter as per the provisions of the Act and the relevant regulations. The issue has been appropriately addressed by the Commission in the section dealing with true up and also while determining ARR for CSPDCL for the MYT period in the this order.

E) Tariff Hike

2.111 It has been submitted that there should be no tariff hike and tariff should be designed keeping in mind tariff stability and not leading to a tariff shock.

CSPDCL's Reply

2.112 CSPDCL has submitted that there has been a continuous reduction of tariff since last 4-5 years despite continuous increase in input costs. Hence it is essential to increase the tariff on the basis of actual costs which would result in hike in tariff. Still the average cost of supply as proposed by CSPDCL for the year 2010-11 is quite less as compared to the proposal of neighboring States as shown below:

Table 4: Proposed average cost of supply in other States for FY 2010-11

Particulars	Madhya Pradesh	Maharashtra	Orissa	Andhra Pradesh	Chhattisgarh
Avg. COS (Paise/Unit)	541	479	457	436	438

2.113 Stability of tariff can only be ensured if cost of inputs is stabilized in market. When the input costs are continuously rising, no Regulation can stabilize the tariff. Besides, tariff is changed at the most once in a year that too after the proceedings on the proposal for 3 to 4 months and the tariff is always made effective for the subsequent consumption; therefore, the problem of costing the product cannot arise.

2.114 Electricity tariff is not the chief incentive to attract investors in the State. The major attractions are easy availability of raw material and continuous supply of electricity.

2.115 CSPDCL would never wish that captive power plants sell their generated power to CSPDCL at higher cost and their captive load may simultaneously avail cheaper power from CSPDCL. Once a CPP is installed, it should supply to its captive load. The reduction in EHV sales is predominantly due to installation of CPP by Bhilai Steel Plant and this facility is available to every consumer under the Act. CSPDCL shall plan its business only with consumers willing to avail supply from it. There is only one HT consumer who opted for availing open access in the State during last four years that too from its Captive Power Plant. If the open access was so lucrative, then the facility would have been availed by many consumers.

Commission's View

2.116 Taking an overall view of the situation, the Commission has tried to avoid tariff shock to the consumers as far as possible. The Commission has decided to defer recovery of Rs 343 Cr of cost to FY 2012-13.

F) Tariff Structure

2.117 Recovery of fixed charges should be linked with load factor to incorporate flexibility in tariff design.

CSPDCL's Reply

2.118 CSPDCL has submitted that the demand charges are meant to recover the fixed cost which is not dependent on sale of energy. The higher the consumption for a given load, the lesser would be the per unit fixed cost. This mechanism is equivalent to the load factor incentive for all consumers.

Commission's View

2.119 The Commission agrees with the view of CSPDCL that demand charges are meant to recover fixed cost and hence has considered the issue accordingly in this order.

G) Unrealistic Projections

2.120 The projections of expenses and cost of supply made by CSPDCL seem unrealistic. It is suggested that the present proposal of average cost of supply of Rs 4.38 per unit should be dealt with precaution with focus on efficiency and target to avoid tariff shock to consumers.

CSPDCL's Reply

2.121 All the successor companies are still under transition till a final Transfer Scheme is notified. During the transition, data base is subject to possible change and is not stable. However, CSPDCL has made sincere efforts to stabilize the data to the best possible extent. The projections are based on past experience and expected trend and are not arbitrary.

Commission's View

2.122 The Commission has projected the cost and revenue of the petitioner after due prudence check of the data submitted and wherever necessary the projections for the control period have been suitably modified.

H) Street light and Pubic water works

2.123 The tariff for public utilities such as street light and public water works consumer categories should not be hiked.

CSPDCL's Reply

2.124 CSPDCL has submitted that its cost of supply has increased substantially, thus it is necessary for it to increase the tariff for each consumer category to sustain its operations. Further according to the NTP, cross subsidy should be reduced gradually and tariff for each category should be +/- 20% of cost of supply. Thus according to the mandate of tariff policy it is necessary to increase the tariff of cross subsidized categories such as public utilities. However, CSPDCL recognizes that these services are related to public welfare and thus it has proposed relatively lower increase in this category as compared to others including the BPL categories.

Commission's View

2.125 The Commission agrees with the views of CSPDCL and has addressed the issue suitably in this order.

I) Merit order schedule of power purchase

2.126 CSPDCL has not provided the details of merit order schedule for power purchase for the MYT period.

CSPDCL's Reply

2.127 CSPDCL has submitted that the merit order schedule cannot be prepared unless the approved rates are known. The tariff of CSPGCL stations are yet to be determined by the Commission, therefore, merit order schedule shall be prescribed by the Commission after approval of tariff for CSPGCL.

Commission's View

2.128 Agreeing with the views of the objector the Commission has suitably incorporated the conditions regarding merit order purchase in this order.

J) Tariff Stabilization Fund

2.129 The reported surplus of Rs.422 Cr till December 2008 and additional surplus of Rs.64 Cr for CSPDCL during January-March 2009, makes the total reported surplus as Rs.486 Cr. Out of this, Rs.231 Cr were provided for ARR of FY 2009-10, leaving net Reported Surplus of Rs.255 Cr. As per the previous Tariff Order and MYT Regulations'2010, above Reported Surplus must be used to create a Tariff Stabilization Fund. CSPDCL cannot use this surplus for payment of its disputed income tax liability of Rs.463 Cr.

CSPDCL's Reply

2.130 CSEB and CSPDCL are two different entities and the accounts of the two cannot be clubbed together to arrive at any sum. Any surplus or deficit of CSEB may or may not be distributed amongst all the successor Companies as per provisions of Transfer Scheme. Accordingly, the earlier adjusted surplus of Rs.231 Cr from the ARR of CSPDCL has been referred back to the accounts of CSEB so as to reflect the actual surplus of Rs.191 Cr in CSEB accounts. The surplus of Rs.64 Cr in CSPDCL's accounts has indeed been added to the revenue of CSPDCL and allowed to be pass on directly to its consumers.

Commission's View

2.131 This issue has been appropriately addressed by the Commission while determining the ARR for CSPDCL in the present order by adjusting the surplus of previous years.

K) Distribution losses

2.132 The distribution loss of 39.28% as proposed by CSPDCL in FY 2009-10 is very high in comparison to the approved losses of 34.32% in the Tariff Order for 2009-10 and should not be allowed. The inefficiency of CSPDCL should not be passed on to consumers. Further the target reduction proposed during the MYT period is only 1.46%, 2.00% & 2.00% for FY 2010-11, FY 2011-12 and FY 2012-13 respectively. While the Abraham Committee Report suggest a reduction of AT&C Loss targets should be 4.00%, 3.00% and 3.00% for the MYT period.

2.133 It is to be added that the losses in Chhattisgarh have been historically high when compared to some other states in the country. Also, the national average of T&D losses for FY 2008-09 was 28.44% only. Thus the losses should be reduced in accordance to the loss reduction trajectory determined by the Commission. Further CSPDCL should segregate losses as technical and commercial losses as main reason for increase in losses is due to theft of electricity. Hence CSPDCL should take measures to reduce the theft of electricity instead of burdening the consumers.

CSPDCL's Reply

2.134 CSPDCL has submitted that the distribution losses have not increased because of the inefficiency of the company but as a result of inadequate expansion of distribution network and intensive rural electrification which has led to a substantial increase of power flow in LT system. Further with the increase in metered consumption, more realistic loss figures are being obtained. CSPDCL is making sincere efforts for reduction of losses because ultimately it is an essential requirement for the well being of the Company. However steep reduction in losses requires time and can only be achieved gradually. Andhra Pradesh and Gujarat are the only Utilities in the nation where distribution losses have reduced substantially that too they achieved this through continuous efforts since 2000 i.e. about 10 years.

2.135 Commercial loss is a major factor attributing to high distribution losses. Therefore, Company is paying more attention on reduction of commercial losses besides reduction of technical losses. CSPDCL has also appointed a consultant to carry out study for determination of consumer category wise cost of supply and voltage level wise loss study. The outcome of the study would enable to segregate the technical and commercial losses.

2.136 The assumption of respondents that CSPDCL does not want to reduce the losses is contrary to fact. Loss trajectory cannot be unilaterally decided by the Commission without taking stock of actual situation. The Commission should set out the targets for reduction of losses to the extent really achievable and not for the sake of targets.

2.137 CSPDCL has clarified that before unbundling, the proposed and approved losses in the Tariff Orders were the combined T&D losses while after restructuring of CSEB, the proposed and approved losses for CSDPCL under Tariff Order are the distribution losses alone. Therefore, the two cannot be compared directly. The distribution losses are normally more than T&D losses.

Commission's View

2.138 The Commission agrees with the views of the objector that the distribution losses should be reduced. After prudence of the data the Commission has allowed only reasonable level of distribution loss and suitable distributional loss targets have been given for the years FY 2010-11 to FY 2012-13.

L) Interstate transmission losses

2.139 Interstate Transmission Losses as reported by CSPDCL are higher than those as per the records of PGCIL and WRLDC.

CSPDCL's Reply

2.140 The interstate transmission losses are evaluated by RLDC on weekly basis and not twice in a year as indicated by respondents. These losses fluctuate in a wide range depending upon the size of transactions. Therefore, for the purpose of annual accounting, CSPDCL has considered the average annual loss of interstate region which is quite reasonable.

Commission's View

2.141 The Commission has conducted prudence check of the data submitted to it and the issue has been appropriately addressed in this order.

M) Non-telescopic vs. telescopic tariff

2.142 Some consumers of domestic category have objected the existing modality of non-telescopic billing. Tariff for domestic consumers should move from non-telescopic to telescopic structure as non-telescopic structure would lead to increase in revenue of CSPDCL disproportionately.

CSPDCL's Reply

2.143 CSPDCL has submitted that it is incorrect to say that the revenue from domestic category is increased disproportionately due to non-telescopic tariff structure. The billing for this category is in accordance with the tariff schedule prescribed by the Commission in its Tariff Order for FY 2009-10. Further the non-telescopic structure has been adopted in view of reducing cross subsidy within the domestic category.

Commission's View

2.144 Non-telescopic billing modality was introduced for the first time in the tariff order 2006-07. The same modality was approved in the tariff order 2007-08 and 2009-10. Since 2006-07, the domestic consumers are being billed according to the non-telescopic modality. However, changing the billing system from non-telescopic to telescopic requires thorough study. But looking at the objections of the consumers, CSPDCL is directed to examine the same and submit its report accordingly.

N) BPL connections

2.145 CSPDCL should clarify its approach to estimate consumption by the BPL consumer category. Also this category is being cross subsidized by other domestic categories, which should not be allowed.

2.146 Further, in the previous Tariff Order, Commission had directed CSPDCL to migrate all such BPL consumers to other domestic subcategory whose monthly consumption is above 30 units and/or connected load is above 120W by September 30, 2009. However, CSPDCL has been able to migrate only 75,000 such consumers out of reported 5,50,000 consumers till March 31, 2010.

CSPDCL's Reply

2.147 CSPDCL has considered the same approach for estimation of energy requirement of BPL consumers which was approved by the Commission in its previous Tariff Order. However, minimum consumption has been revised to 50 units/consumer/ month instead of the earlier figure of 30 units/consumer/month in accordance with the proposal to raise such limit to arrest avoidable commercial losses. Further this category is not availing any cross subsidy. Instead a BPL subsidy upto 30 units/month is being given by the state government to these consumers i.e. the bills of BPL consumers up to 30 units/ month are reimbursed by the government at the tariff prescribed by the Commission for BPL consumers and not to CSPDCL. Thus there arises no question of loading the cost of BPL consumers to other domestic users.

2.148 In the context of migration of BPL users having consumption beyond 30 units /month, CSPDCL submits that approx. 128,491 BPL connections have been shifted to other domestic category till date. Further it proposes to remove the existing load and consumption restrictions for BPL consumers and bill the excess consumption beyond prescribed limit for monthly consumption at appropriate domestic tariff. If this proposal of CSPDCL is accepted by the Commission, no migration of consumers shall be required thereafter for BPL consumers.

Commission's View

2.149 This issue has been appropriately addressed by the Commission in the chapter on tariff principles and design in this order.

O) Agriculture Consumers

2.150 The forecast made by CSPDCL regarding the agricultural load needs to be clarified by the company. The forecasted consumption of agriculture pumps during FY 2010-11 at 166 units/HP/month with an average load of 4 HP per pump amounts to a load factor of 30.90%. This is very high as compared to earlier projections and should be clarified by CSPDCL.

2.151 Further, the proposed increase in agricultural tariff i.e. from Rs.1.00 per unit to Rs.2.40 per unit (approx. 140%) should not be accepted.

2.152 Finally, it is proposed that CSPDCL should install capacitors for the farmers and charge the installation fees in line with installing meters for each consumer. Also maintenance of capacitors should also be borne by them.

CSPDCL's Reply

2.153 CSPDCL submits that about 13,413 pump works have been completed by it during FY 2010-11 till January 2011 and about 12,128 pump applicants have already completed formalities. Besides, applications for 19,373 new pump connections are pending. Therefore, CSPDCL's estimates are realistic. Further the average load factor of agriculture pumps is high in Chhattisgarh on account of low ground water levels and more energy is required to lift the water from deeper sources.

2.154 CSPDCL has submitted that increasing agriculture tariff is a step to move towards cost of supply as mandated by EA 2003 and NTP. Further the proposed tariff is still below the average cost of supply. Also CSPDCL has submitted that agriculture consumers having connected load upto 5 HP are entitled to receive 6000 units p.a. at zero cost under the Krishi Jeevan Jyoti Programme of the state government. Thus these consumers would remain unaffected by the tariff hike proposed by the utility and thus it should be approved.

2.155 With regards the installation of capacitors, CSPDCL has submitted that it will consider the proposal made by the respondent.

Commission's View

2.156 This issue regarding average consumption of agriculture pumps has been appropriately addressed by the Commission in this order. Taking overall view of the situation the Commission has fixed reasonable tariff for agriculture pumps.

2.157 With regards to the installation of capacitors by CSPDCL in more than 3 and upto 5 HP pumps, CSPDCL has been directed to conduct a detailed study and submit its proposal.

P) Power Purchase

2.158 **Power purchase from central generating stations -** there are discrepancies between quantity of power purchased as reported by CSPDCL during FY 2009-10 and FY 2010-11 and the quantity as reported by Western Region Load Dispatch Center (WRLDC) and State Load Dispatch Center (SLDC).

2.159 **Power purchase from CSPGCL –** the cost of power purchase from CSPGCL to the CSPDCL is only Rs.0.50 per unit which should reduce the power purchase cost of the company substantially.

CSPDCL's Reply

2.160 CSPDCL has submitted that the accounting system of WRLDC and Chhattisgarh SLDC are different. CSPDCL is accounting the power being sourced from NSPCL (328.25 MW in FY 2009-10) as state sector power while WRLDC is accounting it under central sector power which is creating the discrepancy.

2.161 CSPDCL also submits that it is incorrect to say that the power purchase cost from CSPGCL is only Rs.0.50 per unit. According to CSPGCL MYT Petition this cost is as high as Rs.1.96 per unit and same has been applied while determining the power purchase cost of CSPDCL for the MYT period.

Commission's View

2.162 After prudence check of the data the issue has been appropriately addressed by the Commission in this order.

Q) Interstate sale of power and UI charges

2.163 CSPDCL has projected a power surplus of 959 MU during FY 2010-11 out of which 500 MU will be disposed through Unscheduled Interchange (UI) mechanism and remaining 459 MU will be sold through interstate sales. These projections are lower than those reported for FY 2008-09 and FY 2009-10. Also, the average realization rate for CSPDCL for interstate sale of 2,996 MU in FY 2009-10 is approximately Rs.2.79 per unit which is lower than the purchase price as well as market rates prevailing at that time.

2.164 Similarly revenues from UI charges projected for FY 2010-11 are not in accordance with numbers for FY 2008-09 and FY 2009-10. Further as per the information available from Western Region Power Committee (WRPC), CSPDCL had received Rs.751 Cr from regional level UI Pool during FY 2009-10 but this is not reflected in the ARR for the period.

CSPDCL's Reply

2.165 CSPDCL's prime function is to undertake distribution within the state. Trading of power is a consequential activity and not a core activity. Only surplus power on account of variation in demand is available for interstate sale. During FY 2009-10 CSPDCL has sold about 70 MU power in interstate region and received about Rs.54 Cr as revenues. 2,996 MU is the total interstate sale by all the entities exporting power from the State.

2.166 UI depends on the status of availability and demand in national and state markets. Therefore, whatever prudent assumption was possible was considered. Besides, the units considered for UI during previous years are not exclusive energy available through CSPDCL, but also include the transactions of embedded customers. Therefore, the comparison across the years by the respondent is not justified.

2.167 The quantum of energy under UI as shown in energy balance account for FY 2009-10 is for all the open access customers of the region, including CSPDCL, and not of CSPDCL alone. CSPDCL has included in its financial accounts whatever amount it has received through UI transactions.

Commission's View

2.168 This issue has been appropriately addressed by the Commission while determining the ARR for CSPDCL in the present order.

R) KVAh billing

2.169 CSPDCL has proposed kVAh billing for HT consumers, through its proposal to increase Power Factor (PF) surcharge on LT & HT consumers without citing any reasons substantiating its proposal. If it is assumed that on an average, HT consumers are maintaining PF of 0.95, in such a case, kVAh billing will increase their energy charge by about 5% which is unacceptable. Further, Reactive Energy Accounts of Western Region Power Committee (WRPC) shows that CSEB/CSPDCL is receiving revenue from Reactive Energy Pool which confirms maintenance of satisfactory level of PF within the state grid.

CSPDCL's Reply

2.170 KVAh billing system is a more accurate & effective cost system to extend the uniform incentive/penalty on account of low or good PF. It is now being adopted fast by many states such as Uttar Pradesh & Delhi. Other states like Orissa and Andhra Pradesh have also proposed to implement kVAh billing.

2.171 The current proposed tariff is based on kWh consumption for all the consumers except Railways. In case the Hon'ble Commission allows kVAh billing to other HT consumers, the tariff determined on kVAh basis shall be less than kWh tariff using the average PF. Receipts amounting to a few lakhs towards reactive energy charge as indicated by the respondent do not mean that the average PF of the state grid is very good. The criterion of levy of reactive energy charge in interstate region is based on voltage profile at which the reactive energy is injected or drawn and PF has no direct role to play in it. The average PF of the Chhattisgarh grid is between 85-90% which is lower than the desired levels.

Commission's View

2.172 This issue has been appropriately addressed by the Commission in the chapter on tariff principles and design in the present order.

S) Withdrawal of incentives

2.173 **Load Factor based incentives:** CSPDCL's proposal to withdraw Load Factor (LF) based incentives would be detrimental to industries such as Steel which is the core industry for Chhattisgarh. Such industries are source of cross subsidy and also maintain good PF and collection efficiencies.

2.174 **Tariff incentives based on ToD usage:** CSPDCL has proposed to discontinue incentive on consumption during night hours. This would cause HT and EHT consumers to become uncompetitive against similar other industries having captive power plants.

CSPDCL's Reply

2.175 Under the prevailing arrangement, the effective tariff of Steel Industries at EHV is Rs.2.61 per unit which is less than the average cost of supply. Cross subsidization of tariff for industries is not desirable. The policy to incentivise more consumption by steel industries, through achieving higher LF is in contrast with the penalty being levied to a domestic consumer on consuming more energy even with the same load.

2.176 Two-part tariff structure has an inbuilt incentive for more consumption within a given load. The cost of per unit demand charge is reduced with increase in LF. Therefore, separate provision for LF concession is not justified and is an indirect reduction in tariff.

2.177 CSPDCL does not obtain power at cheaper rates during night hours for a predominant period of the year. Also, CSPDCL did not observe any appreciable change in demand pattern even with ToD tariff for certain HT categories of consumers. Thus, CSPDCL's proposal to discontinue incentive based on ToD is justified.

Commission's View

2.178 This issue has been appropriately addressed by the Commission in the chapter on tariff principles and design in the present order.

T) Peak rates

2.179 CSPDCL's peak rates are 30% higher than normal tariff during peak hours. Also, CSPDCL has proposed to increase duration of peak hours from 5 to 6 hours. As Chhattisgarh's load curve is under control, CSPDCL should reduce peak rates to 20% in excess of normal charges. Moreover, CSPDCL's proposal to apply peak usage charges to LT industries (with connected load of more than 50 HP) would hamper industrial growth and creation of job opportunities in the State.

CSPDCL's Reply

2.180 CSPDCL faces power shortage during peak hours and does not sell power to other states. CSPDCL purchases power at higher cost during peak hours and proposes to retain the tariff structure. Change in duration of peak hours is proposed to match State's peak hour burden with that of interstate region.

2.181 The motive behind application of ToD tariff to LT consumers is to reduce investment in capacity addition in power generation to meet out the peak demand, as the gap between peak and off peak demands is very high. Gradually, ToD tariff shall be introduced to all consumers except domestic and emergency services. CSPDCL does not intend gaining financially out of this exercise and this is a purely operational matter.

Commission's View

2.182 After examining the relevant data the Commission has found that it is not necessary to increase the peak hours from 5 hours to 6 hours at present and has decided to retain the timings of the peak hours from 6 pm to 11 pm. It has also decided to retain the ToD tariff for HT category. It has not accepted CSPDCL's proposal to introduce ToD tariff for LT industries at present.

U) Restriction on switching from HV1 to HV4 category

2.183 CSPDCL's proposal to restrict switching over from HV1 to HV4 consumer categories to once in two years is objectionable.

CSPDCL's Reply

2.184 CSPDCL has submitted that with frequent changes in market conditions if the consumers are also allowed to frequently change their options of tariff, then CSPDCL's expected revenue will have no consistency and will be reduced invariably.

Commission's View

2.185 This issue has been appropriately addressed by the Commission in the chapter on tariff principles and design in this order.

V) Control of theft

2.186 **Additional Surcharge on Theft prone areas**: Though CSPDCL has proposed to levy additional surcharge on theft-prone areas/feeders but it has not proposed any rates of such surcharges and mechanism to apply such surcharge. MYT Regulation 2010 does not specify a theft-prone area instead makes reference to high-loss prone areas. Further, there is no provision to levy such surcharge on feeder basis. CSPDCL has not proposed any incentive/ disincentive scheme for their staff linked to the reduction of losses as per the provisions of MYT Regulations 2010.

2.187 **Recovery from cases of theft**: CSPDCL has neither projected any recovery from theft case in the ARR for FY 2010-11 nor reported its performance during FY 2009-10. As per the press release by ED (vigilance), one out of every three connections checked in FY 2010-11 has an irregularity. This performance is dismal when compared to that in previous years.

CSPDCL's Reply

2.188 CSPDCL has proposed additional surcharge in theft prone or high loss areas on the basis of provision under the NTP. The Commission should decide to what extent the consumers in such areas should be burdened if the proposal is accepted. CSPDCL has used the words "theft prone" on the ground that theft is a commercial loss only and does not include the technical losses which are within the domain of Licensee. Therefore, "high losses" on account of technical reasons cannot be attributed to levy the surcharge on consumers. Further it is not the requirement of Tariff petition to factor in theft of electricity as source of revenue and hence the same has not been provided separately. During FY 2010-11, 26,370 cases of theft/pilferage of electricity have been detected of which an amount of Rs.19.38 Cr. has been recovered. This aspect is being regularly monitored by the Hon'ble Commission separately. Further CSPDCL is taking steps to ensure reduction in theft and increasing recovery of theft.

Commission's View

2.189 The Commission agrees that theft of power must be reduced. However, it does not agree with CSPDCL's proposal to levy additional surcharge on consumers in theft prone areas at present.

W) Collection efficiency

2.190 CSPDCL has not provided any projection for collection efficiency for MYT Period. Further, CSPDCL is reporting a collection efficiency of less than 92% during FY 2008-09 and FY 2009-10, while the outstanding arrears are soaring high. It should be noted that the Commission in the Tariff Order for 2007-08 had directed the erstwhile CSEB to ensure collection efficiency of 92% during FY 2007-08.

CSPDCL's Reply

2.191 Collection efficiency may be a performance parameter but it doesn't influence the determination of tariff as tariff determination is based on revenue demand and not collection, thus it is not a requirement of tariff determination.

2.192 Further the outstanding arrears are primarily on account of a disputed amount of Rs.1,433.18 Cr receivable from the Indian Railways. Other arrears are due from consumers such as public utilities. It is to be noted that excluding the arrears due from Indian Railways, CSPDCL's current collection efficiency is more than 95% as summarised in table below.

Table 5: Collection efficiency (%)

Sl. No.	Financial Year	Demand (Rs Cr)	Collection (Rs Cr)	Collection Efficiency (%)
1	2006-07	3159.79	3059.2	96.82
2	2007-08	3550.91	3556.87	100.17
3	2008-09	3881.14	3748.11	96.57
4	2009-10	4657.45	3559.92	97.33
5	2010-11 (till Dec.10)	3007.11	2924.03	97.24

Commission's View

2.193 The Commission is of the view that collection efficiency is an important performance parameter and therefore the distribution company should make efforts for improving collection efficiency. The target for the same has been given in the relevant section of this order.

X) Railway tariff

2.194 The Railways is a bulk traction supply consumer of CSPDCL and deserves special consideration for fixing Railway traction tariff. Article 187 of the Constitution of India states that, "the price of electricity sold to the Government of India for consumption by the government, or to any such Railway company as aforesaid for consumption in the construction, maintenance or operation of any Railways shall be less by the amount of the tax than the price charged to other consumers of a substantial quantity of electricity. Also single part tariff should be made applicable for this category. Other points raised for this category are as follows:

- **Demand charges:** reconsider recording of maximum demand for traction supply points integrated over 30 minutes period with block type window and also reduce the demand charges from existing Rs. 300 per kVA.
- **Energy charges:** cross-subsidy levels should be monitored while determining tariff. Energy charges may be reduced further from the existing as an EHT consumer in public service, as the demand charges are already on a higher side. Only losses and actual maintenance charges (if any) should be levied and unit cost fixed accordingly.
- **Recording of maximum demand:** CSERC should pass an order as deem fit and proper for adoption of recording of simultaneous maximum demand for Railway traction or single point metering by providing meter at Barsur Grid from which all 6 traction sub-stations are fed.
- **Penalty for violation of contract demand:** CSERC should allow some relaxation to Railway traction category for exceeding the contract demand by a) allowing some cushion in demand as implemented by other SERCs; b) waive off the penalties for energy consumption as it is practically less than 1% during CD violation period; and c) reducing the penalty from existing 1.5 times as against the proposal of CSPDCL to increase the penalty to 2 times.
- **Change in metering technique:** the existing metering technique of lag + lead logic is to be reverted back to the old scheme i.e. lag logic only, in the lines of MPERC, UPERC and TNERC.
- **Monthly meter rent:** meter rent should be stopped after realization of the cost of the meter or the present meter rent is to be reduced.
- **Stand-by feeder maintenance charges:** CSERC should waive off the stand-by feeder maintenance charges for Railway traction category as CSPTCL is looking over transmission lines and these transmission charges were already taken into consideration and accounted by the Commission, while fixing the tariffs for transmission licensees.
- **Incentive on early payment:** incentive should be given to Railways on early payment of energy bills to CSPDCL, i.e. within 3 days after receiving the bills should be implemented, as implemented by OERC and other SERCs.

CSPDCL's Reply

2.195 CSPDCL has replied that Railway is an esteemed consumer and they care for it accordingly. The Tariff Policy mandates the applicability of two part tariffs and in compliance, the CSERC has determined two part tariff for all the consumers of CSPDCL. Therefore, no justification persists for considering single part tariff for Railway Traction. There are special circumstances prevailing in AP where the Govt. subsidizing the Railway as electricity consumer, but the same has not been followed elsewhere. Further, no tax (Electricity Duty and Cess) is levied on the electricity consumption for traction. Therefore, the constitutional requirement has been complied with.

2.196 **Demand charges -** The demand charges are prescribed for recovery of fixed costs of Licensee. The prevailing and even proposed demand charges are not sufficient to recover the complete fixed costs of CSPDCL and so a minor increase was considered under the proposal. States like Orissa, Jharkhand and West Bengal may have small fixed costs and so could sustain with lower demand charges. The latest technology considers even 5 minutes integration for calculation of Demand Charges. Therefore, CSPDCL is billing to Railways on more accurate demand consumption.

2.197 **Energy charges** - CSPDCL has submitted that the energy charges of a Licensee depend upon power purchase costs and will vary accordingly. It is not possible to maintain it uniformly. Also, when cost of every commodity was increasing, the tariff of Railway was decreasing which was not justified. Such acts only led to this steep rise in tariff this time.

2.198 **Recording of maximum demand -** CSPDCL has submitted that this is not a tariff related issue and has already been raised before CSERC through a separate petition. This petition has been rejected by Commission after adjudication. Therefore, it will be of no use to repeat the same unnecessarily.

2.199 **Penalty for violation of contract demand -** CSPDCL is required to pay heavy compensations in terms of UI and congestion charge for exceeding the schedules; hence it expects its consumers to restrict their demands to contracted level otherwise pay compensation. Therefore, such request has no merit for consideration.

2.200 **Change in metering technique and Monthly meter rent** - this is not an issue relevant to tariff petition.

2.201 **Stand-by feeder maintenance charges** - This is not an issue related to tariff petition, however, Railway has already filed a separate petition for this issue and the same was rejected after adjudication. Therefore, there is no need to repeat the same issue.

2.202 **Incentive on early payment -** CSPDCL has submitted that it will try to consider an appropriate incentive scheme for immediate payment.

Commission's View

2.203 The Commission does not agree with the proposal of Railways for consideration 30 minutes time block for metering. As such, railway traction is a highly fluctuating load and for all other EHV and HV consumers provision of 15 minutes integration for fluctuating load has been made. Looking at the important nature of service provided by railways, a special relaxation on billing in case of exceeding the contract demand in emergency (being moving load in nature) has already been provided to the Railways.

2.204 Regarding other issues raised by Railways, the Commission generally agrees with the view expressed by CSPDCL.

Y) O&M Expenses

2.205 O&M expenses should be as per the norms specified by the Commission in its MYT Regulations 2010. In addition the increase in O&M expenses on account of provision for wage revision has resulted in hike of 40% which is very high.

2.206 Further in the Tariff Order for FY 2009-10, entire 33kV network was considered under CSPDCL but under the bifurcation scheme, some part of 33kV network has been transferred to CSPTCL. While CSPTCL has increased its projection of O&M expenses by about Rs.88.50 Cr. However CSPDCL has not reduced this amount from its petition correspondingly

CSPDCL's Reply

2.207 No norms have been prescribed by the Hon'ble Commission under the MYT Regulation 2010 for O&M expenses for the Distribution Licensee.

2.208 Since the actual wage revision was fully made effective in the month of May 2010, the financial accounts represent employee expenses under two headings, one as per prevailing rates and two reflecting effect of wage revision. The overall employee expenses have remained unchanged and nothing has been considered for any new wage revision.

2.209 33 kV equipments installed at EHV sub-stations are the property of CSPTCL and maintained by them only. Therefore, both CSPDCL and CSPTCL will claim the O&M expenses of their respective assets separately.

Commission's View

2.210 After prudence check of the data this issue has been appropriately addressed by the Commission while determining the ARR for CSPDCL.

Z) Peak demand

2.211 CSPDCL has not reported the peak demand expected during FY 2010-11 in its MYT petition. CSPDCL has reported that it has available capacity of 2930 MW during FY 2010-11. But 279 MW from SSTPS and KSTPS were not available till the filing of the petition. Therefore, actual firm availability is only 2651 MW and there appears to be a shortage of 500-600 MW which is about 25% of the demand. Therefore, it is the duty of State Government to sign PPAs in favour of CSPDCL to the extent of load deficit. However, the trading company or the State Government has not entered into any PPA with any CPP or IPP.

CSPDCL's Reply

2.212 CSPDCL has submitted that the peak demand for the state is 3,216 MW instead of 3,306 MW as given in the MYT petition which was a typographical error. CoD of SSTPS and KSTPS plants has been delayed by NTPC. However, these are the long term contracts for power purchase and in the event of non availability of power from these sources; arrangements to meet the demand are ensured from alternate sources. There is no threat as stipulated.

Commission's View

2.213 The distribution company should prepare a long term plan for estimating the long term demand so that it makes arrangements for long term power procurement through PPA mode. This is likely to ensure power availability in the state at low cost. However after prudence check of the data the issue has been addressed appropriately in the order.

AA) Metering

2.214 Although CSPDCL has claimed to have achieved 100% metering for retail supply including all BPL and agriculture consumers, it has still assumed consumption of BPL and agriculture consumers in the MYT petition. This clearly indicates that all meters are not been read regularly and R-15 data does not clearly reflect the actual consumption. Further, CSPDCL has projected retail sale for FY 2010-11 as 12,763 MU in the MYT petition (in Table 86), while elsewhere (form R-15), it is stated to be only 12,749 MU. A difference of 14 MU amounts to about Rs.4.00-5.00 Cr in state market and Rs.9.00-10.00 Cr in interstate market. Further meter reading is not done in timely and regular manner.

CSPDCL's Reply

2.215 Meters are available for all the connections but regular meter reading has not been arranged so far for all the meters due to staff constraints and failure of contract assignments. Therefore, in absence of metered consumption data for BPL consumers, estimation according to earlier studies has been considered appropriate. Further CSPDCL has clarified that the sale projections of 12,763 MU as on Page 74 (Table 86) of MYT petition is correct and has been considered for calculations.

2.216 In addition, CSPDCL has submitted that it is in the process of improving the meter reading through installation of automatic meters.

Commission's View

2.217 The Commission is of the firm opinion that CSPDCL should immediately make improvement in the process of meter reading and hence specific directive in this regard has been given in the Directives Section of this order.

BB) Non-compliance of directives of the Commission

2.218 It has been alleged that CSPDCL has not complied t the Commission's directives in the following regards:

- To create separate cell to reduce distribution and AT&C losses
- To fix up circle-wise trajectory for loss reduction
- To improve the collection efficiency
- To maximize revenue through sale of surplus power
- To prepare R-15 statements correctly

CSPDCL's Reply

2.219 CSPDCL has submitted that appropriate action has been taken regarding the above directives and compliance reports submitted to the Commission.

Commission's View

2.220 The Commission has considered this issue separately in the Directives Section of this order.

CC) Separate category for SEZ consumers

2.221 It has been submitted to create a separate category for SEZ consumers with a preferential tariff that is closer to average pooled power purchase cost of CSPDCL which is approx. Rs.1.72 per unit.

CSPDCL's Reply

2.222 CSPDCL has replied that creation of a new consumer category is in the jurisdiction of the Commission.

Commission's View

2.223 In absence of any specific, justified and detailed proposal for SEZ consumers, the Commission has not considered at present a separate tariff for SEZ consumers.

DD) Pelletisation industry

2.224 It has been submitted that 'pelletisation' industry should be considered a part of steel making industry and be included in the steel industries category in the tariff proposed by CSPDCL.

CSPDCL's Reply

2.225 The request of the respondent had already been turned down by the Commission under its order dated August 10, 2010. In addition, CSPDCL submits that mining is a distinct activity which includes ore benefication process, hence iron ore pelletisation activity cannot be included and categorised as steel manufacturing activity.

Commission's View

2.226 The Commission has already addressed this issue in a separate order.

3 BACKGROUND FOR TRUING UP FOR THR PERIOD FY2005-06 TO FY 2009-10

Background

3.1 The utility makes certain estimates and projections of expenses and revenue, while submitting the ARR and tariff petition. The Commission also makes certain assumptions and norms while approving the expenses and revenue, on the basis of data available at that point in time. However, the actual expenses and revenue can be higher or lower than the amounts projected/approved by the Commission in its order, due to variation in controllable factors such as the efficiency parameters like station heat rate, auxiliary consumption, transit loss, etc., as well as variation in uncontrollable parameters like fuel cost, taxes and duties etc. In a cost-plus regulatory regime, the utility is entitled to recover the actual costs and the reasonable return, subject to efficiency parameters, norms and prudence check by the Commission, and should neither be subjected to the risk of under-recovery nor be in a position to earn additional return, due to fluctuations in uncontrollable factors, which have no bearing to the efficiency of the utility. The only way to ensure this is to institute a mechanism for truing up the actual expenses and revenue vis-à-vis the expenses and revenue considered in the Commission's order, subject to prudence check.

3.2 The Hon'ble Appellate Tribunal for Electricity (ATE) has ruled in Appeal No. 77, 78 and 79 of 2006 dated December 13, 2006, in the matter of SOUTHCO, WESCO and NESCO vs. OERC that *"truing up is an essential exercise required to be undertaken by the Regulator on a regular basis, where in actuals are compared with those approved and necessary results flow from it."*

3.3 Based on the ATE Order, the Commission has now carried out the truing up exercise for various years on the following basis:

(a) **FY 2005-06 & FY 2006-07:** In the Tariff Order for FY 2009-10, in the absence of audited annual accounts, the Commission had carried out the provisional true up of erstwhile CSEB for FY 2005-06 and FY 2006-07. The annual statements for FY 2005-06 and FY 2006-07 have now been audited and the Commission has carried out the final true up for FY 2005-06 and FY 2006-07 based on audited annual accounts of erstwhile CSEB.

(b) **FY 2007-08:** In the Tariff Order for FY 2009-10, in the absence of audited annual accounts, the Commission had also carried out the provisional true up of erstwhile CSEB for FY 2007-08. The companies have now again requested for provisional true-up for FY 2007-08 as the audit of accounts is reported to be in process by AG audit. However, the expenditure FY 2007-08 has already been provisionally trued-up in the tariff order for FY 2009-10, and hence the Commission does not find it appropriate to carry out second provisional true-up of ARR for the year 2007-08. The final true up will be carried out for FY 2007-08 with the next tariff petition, provided audited accounts are made available for the year.

(c) **FY 2008-09:** At the time of Tariff Order for FY 2009-10, FY 2008-09 had ended and thus the Commission did not make any projections for the year. However, the Commission had stated that it would undertake review of the expenses for FY 2008-09 during the tariff exercise for FY 2010-11. During

FY 2008-09, CSEB operated as a bundled utility till December 31, 2008 and as separate entities from January 1, 2009. The petitioner has filed separate petitions for the true up for the erstwhile CSEB for April-December 2008 and for the successor companies for January-March 2009. However, the Commission is of the view that it is not practical to break the financial year to carry out the true up separately for CSEB period and for the companies. Thus for the purpose of provisional truing up for FY 2008-09, the Commission has combined the provisional accounts for last quarter of FY 2008-09 as given by the companies with the provisional accounts of CSEB for first three quarters to arrive at the consolidated balance sheet and financial position of the CSEB for FY 2008-09.

(d) **FY 2009-10:** In the tariff order for FY 2009-10 the Commission had approved the ARR for FY 2009-10 separately for the three companies CSPGCL, CSPTCL and CSPDCL. The companies have now requested for a provisional true-up for the year based on the provisional accounts of the respective companies.

3.4 The component-wise description of erstwhile CSEB submission and Commission's analysis for truing up from FY 2005-06 to FY 2008-09 for CSEB and for FY 2009-10 for successor companies is given in the following sections.

4 FINAL TRUING UP FOR FY 2005-06 AND FY 2006-07

Energy Sales

4.1 An overview of the actual sales approved as per audited accounts are given below:

Table 6: LV Sales (MUs) from FY 2005-06 to FY 2006-07

Consumer Categories		2005-06	2006-07
		Actual	Actual
LV-1	BPL Consumers	258	304
LV-1	Other Domestic	1162	1236
LV-2	Non Domestic	270	288
LV-3.1	Agriculture Metered	15	21
LV-3.2	Agriculture Flat Rate	430	565
LV-4	Agriculture Allied Services	0	0
LV-5	LV Industrial	357	374
LV-6	Public Utilities (PWW & SL)	109	109
LV-7	Temporary	136	110
	Sub Total – LV	**2,737**	**3,007**

Table 7: EHV Category wise Sales (MUs) from FY 2005-06 to FY 2006-07

Consumer Categories		2005-06	2006-07
		Actual	Actual
EHV-1	Railway Traction	617	653
EHV-2	Heavy Industries	1588	1445
EHV-3	Steel Industries	81	108
EHV-4	Coal Mine, Cement & Other EHV Industries	468	426
	Sub Total - EHV	**2,753**	**2,632**

Table 8: HV category-wise Sales (MUs) from FY 2005-06 to FY 2006-07

HV Categories		2005-06	2006-07
		Actual	Actual
HV-1	Steel Industries	1371	1838
HV-2	Coal Mines & Cement Ind.	189	172
HV-3.1	Other HT Industries	385	462
HV-3.2	Other HT Industries	14	17
HV-4.1	Low Load Factor Industries	66	81
HV-4.2	Low Load Factor Industries	1	1
HV-5.1	Residential Purpose	233	220
HV-5.2	Residential Purpose	4	4
HV-6.1	General Purpose Non Industrial	107	111
HV-6.2	General Purpose Non Industrial	38	39
HV-7.1	Public Water works & Irrigation	25	28
HV-7.2	Public Water works & Irrigation	10	10
HV-8.1	Start Power	0	0

HV Categories		2005-06 Actual	2006-07 Actual
HV-8.2	Start Power	0	0
HV-8.3	Start Power	0	0
HV	Temporary Supply	0	0
HV	Temporary Supply	0	0
	Sub Total – HV	**2,444**	**2,983**

Transmission and Distribution Loss

4.2 In tariff order for FY 2005-06 and FY 2006-07 the Commission had approved T&D loss for CSEB as a whole at 35.81% and 33.81% respectively, against which erstwhile CSEB reported actual T&D loss at 36.19% and 35.54% respectively. The Commission has accepted the actual distribution and transmission loss of erstwhile CSEB at the time of the provisional true up for the two years and has considered the same for setting the distribution loss targets for the licensee for future years.

Table 9: Approved Transmission and Distribution Loss for FY 2005-06 and FY 2006-07

Particulars	FY 2005-06	FY 2006-07
Transmission Loss		
Approved in Tariff Order for the year	3.71%	3.93%
Actual	3.93%	4.03%
T&D Loss		
Approved in Tariff Order for the year	35.81%	33.81%
Actual	36.19%	35.54%

Power Purchase Cost and Transmission Charges

4.3 The petitioner has submitted the actual power purchase cost for FY 2005-06 and FY 2006-07 was Rs.901 Cr and Rs.1044 Cr, respectively.

Commission's View

4.4 The Commission has considered the power purchase cost for FY 2005-06 and FY 2006-07 as per the audited annual accounts of respective years. There is a change in the representation of power purchase cost and revenues on account of UI income as the Commission is of the view that income from UI should be reduced from power purchase cost and should not be included in revenue from sale of power as done by the petitioner. Accordingly, the income from UI for FY 2005-06 and FY 2006-07 has been reduced from the overall power purchase cost.

Table 10: Power Purchase Cost (PPC) for FY 2005-06 & FY 2006-07 (Rs Cr)

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
PPC	1623	901.00	901.36	1113	1,044.00	1,032.91

Generation cost

4.5 The petitioner has submitted the actual generation cost as per the audited annual accounts for FY 2005-06 and FY 2006-07 was Rs.459 Cr and Rs.511 Cr, respectively.

Commission's View

4.6 The Commission asked the petitioner to submit additional information on station-wise actual generation and other operational parameters for erstwhile CSEB for FY 2005-06 and FY 2006-07.

4.7 The Commission examined the actual performance of petitioner vis-à-vis the approved operational parameters as summarized in Table 11

Table 11: Station-wise operational parameters approved in previous Tariff Order and actual submitted now for FY 2005-06 & FY 2006-07

Station Name	FY	PLF (%)		Aux. Cons. (%)		SOC (ml/kWh)		SHR (kCal/kWh)	
		App. in TO	Actual	App. in TO	Actual	App. in TO	Actual	App. in TO	Actual
HTPS	2005-06	76	78	9.50	9.58	1.25	1.12	2,600	2,515
	2006-07	78	81	9.50	9.37	1.25	1.27	2,575	2,670
KTPS – PH II	2005-06	80	92	10.25	10.18	2.00	1.25	2,780	3,055
	2006-07	89	93	10.15	10.16	1.50	1.20	2,780	2,954
KTPS – PH III	2005-06	80	76	9.50	8.84	2.53	2.00	2,600	2,855
	2006-07	80	79	9.00	8.48	2.00	1.48	2,600	2,654
Hydro	2005-06	-	-	0.21	0.43	-	-	-	-
	2006-07	-	-	-	0.80	-	-	-	-

4.8 As can be seen from table above, the actual performance for CSEB in case of thermal plants has been better than the norms approved by Commission except for Korba Phase-III. The performance of Korba Phase-III was also close to norms and variation was observed as the plant was under refurbishment up till August 2005. The actual generation of CSEB during FY 2005-06 and FY 2006-07 has also been higher than the approved generation in previous tariff orders of the Commission as shown in Table 12

Table 12: Station-wise generation as approved in previous Tariff Order and actual submitted now for FY 2005-06 & FY 2006-07

Station Name	FY	Gross Gen. (MU)		Net Gen. (MU)	
		App. in TO	Actual	App. in TO	Actual
HTPS	2005-06	5,592	5,746	5,061	5,196
	2006-07	5,740	5,944	5,195	5,387
KTPS – PH II	2005-06	1,402	1,610	1,258	1,447
	2006-07	1,551	1,623	1,394	1,458
KTPS – PH III	2005-06	1,682	1,587	1,522	1,447
	2006-07	1,682	1,660	1,531	1,519

Station Name	FY	Gross Gen. (MU)		Net Gen. (MU)	
		App. in TO	Actual	App. in TO	Actual
Hydro	2005-06	428	372	428	371
	2006-07	392	394	392	391
Kawardha Co-gen	2005-06	-	-	-	-
	2006-07	8.64	2.71	8.64	1.29
TOTAL	**2005-06**	**9104**	**9316**	**8269**	**8460**
	2006-07	**9374**	**9624**	**8520**	**8757**

4.9 It is evident from above that the actual gross generation of CSEB was higher than the approved gross generation by 211 MU and 250 MU in FY 2005-06 and FY 2006-07, respectively. Similarly the actual net generation was higher by 192 MU and 236 MU in FY 2005-06 and FY 2006-07, respectively. Thus there has been an increase of approx. 3% in FY 2005-06 and FY 2006-07 in actual generation over the targeted generation. On the other hand, the increase in the actual cost vis-à-vis targeted cost as per tariff orders for FY 2005-06 (Rs.454 Cr) and FY 2006-07 (Rs.471 Cr) was 1% and 8%, respectively.

4.10 The petitioner has further submitted that the reason for increase in generation cost in FY 2006-07 is due to the increase in cost of coal. The approved cost of coal in FY 2006-07 was Rs.600/MT while the actual coal cost was approx. Rs.645/MT which is an increase of approx. 8%.

4.11 The Commission with the view that as the overall performance of CSEB in FY 2005-06 and FY 2006-07 is higher than the targeted performance and the increase in generation cost is not substantially high, has approved the actual generation cost incurred by CSEB during FY 2005-06 and FY 2006-07. The generation cost as proposed by petitioner and as now approved by Commission has been summarized in Table 13

Table 13: Generation cost (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Generation cost	454	459	459	471	511	511

4.12 The Commission in its tariff order of FY 2005-06 and FY 2006-07 had allowed that any variation in the cost of coal/other fuels and power purchase cost during the year is to be claimed through VCA formula approved by the Commission. However, no petition in this regard was filed by the erstwhile CSEB. Since the Commission has now approved the actual fuel and power purchase cost incurred by erstwhile CSEB, the variation in fuel and power purchase cost has also been taken into account and there shall be no scope for any further adjustment under the VCA formula for these years.

Employee cost

4.13 The petitioner has submitted the actual employee cost as per the audited annual accounts for FY 2005-06 and FY 2006-07 of Rs.636 Cr and Rs.580 Cr respectively.

Commission's View

4.14 The employee cost comprises of two major components i.e. salaries and wages and the terminal benefits. The Commission has approved the actual salaries and wages paid in FY 2005-06 and FY 2006-07 as per the audited annual accounts of respective years. Meanwhile, all the payments towards terminal benefits are to be made from a separate Pension and Gratuity Fund set up for this purpose. CSEB makes annual contribution to the fund and has submitted, as part of additional information, that for FY 2005-06 it has made no contribution to the fund and for FY 2006-07 it has contribute Rs.100 Cr. In accordance with the principles adopted by the Commission in the Tariff Orders for FY 2005-06 and FY 2006-07, the Commission has approved, in case of true up for FY 2005-06, only the actual payment made to employees i.e. Rs.79.6 Cr as terminal benefits and disallowed the provisions made for contribution to fund of Rs.200 Cr. In case of FY 2006-07, the Commission has approved Rs.177.95 Cr as terminal benefits including actual contribution made to the fund of Rs.100 Cr and payment made to employees of Rs.77.95 Cr. The proposed and approved employee cost for FY 2005-06 and FY 2006-07 is shown Table 14

Table 14: Employee cost (Rs Cr) for FY 2005-06 & FY 2006-07

	Particulars	FY 2005-06			FY 2006-07		
		Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
1.	Salaries & wages (excl. terminal benefits)		356.38	356.71		402.05	402.23
2.	Terminal benefits						
	Contribution to Gratuity & Pension Fund		200.00	0.00		100.00	100.00
	Payment made to Retired employees		79.62	79.62		77.95	77.95
	Sub-total (2)		*279.62*	*79.62*		*177.95*	*177.95*
3.	**Total Employee Cost (1+2)**	**470**	**636.00**	**436.33**	**638**	**580.00**	**580.18**

Repair and Maintenance (R&M) cost

4.15 The petitioner has submitted actual R&M cost as per the audited annual accounts for FY 2005-06 and FY 2006-07 was Rs.142 Cr and Rs.166 Cr, respectively.

Commission's View

4.16 The Commission has approved the R&M cost for FY 2005-06 and FY 2006-07 as per the audited annual accounts for respective years. The R&M cost as proposed by petitioner and as approved by Commission has been summarized below:

Table 15: R&M cost (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
R&M cost	145	142	142	147	166	166

Administration & General (A&G) cost

4.17 The petitioner has submitted actual A&G cost as per the audited annual accounts for FY 2005-06 and FY 2006-07 was Rs.89 Cr and Rs.61 Cr, respectively.

Commission's View

4.18 The petitioner has submitted that during FY 2005-06 it had contributed Rs.30 Cr towards Chief Minister's Relief Fund which has been shown as part of A&G costs in the audited accounts. The Commission is of the view that this contribution was done by the Board for the welfare of society and should be funded through its own reserves and surplus and should not be passed on to the consumers of the Board. Thus for FY 2005-06, the Commission has approved the A&G cost as per the audited annual accounts excluding the contribution made to CM's Relief fund. While for FY 2006-07, the Commission has approved the A&G cost as per audited annual accounts for the year. The A&G cost as proposed by petitioner and as approved by Commission has been summarized in Table 16.

Table 16: A&G cost (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
A&G cost	56	89	59	47	61	61

Depreciation

4.19 The petitioner has estimated depreciation on the Gross Fixed Assets (GFA) on the basis of Straight Line Method (SLM) and as per the rates specified in the CSERC (Terms and Conditions for Determination of Tariff) Regulations, 2006. The depreciation cost for FY 2005-06 and FY 2006-07 as submitted by petitioner was Rs.41 Cr and Rs.57 Cr, respectively.

Commission's View

4.20 The Commission has approved the depreciation cost considered by the petitioner except the cost pertaining to consumer contributions during the year, which is on assets created out of consumer contribution and not chargeable for depreciation. Hence the Commission has disallowed the depreciation amount pertaining to consumer contributions during the years. The depreciation cost as proposed by petitioner and as approved by Commission has been summarized in Table 17

Table 17: Depreciation (Rs Cr) for FY 2005-06 & FY 2006-07

Sl. No.	Particulars	FY 2005-06			FY 2006-07		
		Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
A	Opening GFA (with consumer contribution)		1915.68	1915.68		2636.99	2636.99
B	Opening consumer contribution			442.32			585.74
C	*Share of consumer contribution in opening GFA (%)*			*23%*			*22%*

Sl. No.	Particulars	FY 2005-06			FY 2006-07		
		Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
D	**Depreciation on total GFA**		**41**	**41**		**57**	**57**
E	*Less:* Depreciation on account of consumer contribution *(C * D)*		-	10		-	12
F	**Net Depreciation**	**111**	**41**	**31**	**61**	**57**	**45**

Interest & Finance Charges

4.21 The petitioner has submitted actual interest and finance charges for FY 2005-06 and FY 2006-07 was Rs.239 Cr and Rs.166 Cr respectively.

Commission's View

4.22 The Commission has approved the interest & finance charges for FY 2005-06 and FY 2006-07 as per the audited annual accounts for respective years. The interest & finance charges as proposed by petitioner and as approved by Commission are summarized in Table 18

Table 18: Interest & finance charges (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Interest & finance charges	225	239	239	287	166	165

Interest & other expenses capitalized

4.23 The petitioner has submitted actual interest & other expenses capitalized as per the audited annual accounts during FY 2005-06 and FY 2006-07 was Rs.54 Cr and Rs.49 Cr respectively.

Commission's View

4.24 The Commission has approved the interest & other expenses capitalized during FY 2005-06 and FY 2006-07 as per the audited annual accounts for respective years. The interest & other expenses capitalized during the year as proposed by petitioner and as approved by Commission has been summarized in Table 19

Table 19: Interest & other expenses capitalised (Rs Cr) during FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Interest & other expenses capitalized	84	54	54	95	49	49

Return on equity (RoE)

4.25 CSPDCL and CSPTCL have submitted different computation of RoE for the true up period pertaining to erstwhile CSEB for FY 2005-06 to FY 2008-09 (upto December 31, 2008). However, the Commission has considered the petition submitted by CSPTCL as the methodology for computation of capital expenditure for the year, as submitted by CSPTCL, is more in line with the annual accounts for the true up period.

4.26 The erstwhile CSEB had made an equity investment of Rs.1093 Cr and Rs.393 Cr during FY 2005-06 and FY 2006-07 respectively. Further the petitioner has estimated the RoE @ 14% on normative equity i.e. 30% of net capital expenditure during the year and @ 8.5% on equity over and above the normative equity. The computation of RoE as submitted by the petitioner has been summarized in Table 20

Table 20: Computation of RoE (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06	FY 2006-07
Capital Expenditure as per audited annual accounts	1367	1617
Less: Grants and consumer contributions	143	525
Net capital expenditure	**1224**	**1092**
Less: Loan for incurring capital expenditure	131	699
Equity incurred for capital expenditure during the year	**1093**	**393**
Normative equity (30% of net capex)	367	328
RoE on normative equity @ 14%	*51*	*46*
Interest on balance equity component @ 8.5%	*62*	*6*
RoE during the year	**113**	**52**
Return on Equity (RoE)		
Opening RoE (RoE as per equity invested in Capex till 31.03.05 as per calculation presented in Commission's Tariff Order)	157	157
Add: RoE on equity investment upto previous year	*0*	*113*
Add: Additional RoE during the year (upto 30% at 14% and 8.5% on the balance equity component)	*113*	*52*
Total RoE during the year	**270**	**322**

Commission's View

4.27 The Commission observed that the petitioner has computed the RoE for the true up period in erroneous manner. In FY 2005-06 and FY 2006-07 CSEB was only allowed to claim RoE only on assets added till the beginning of the year. Further, petitioner has also proposed RoE on the capital works in progress (CWIP) which is not in line with the methodology presented in Commission's previous tariff orders. Thus the Commission has recomputed the RoE on the basis of methodology approved by it in previous tariff orders.

4.28 The total net equity invested by erstwhile CSEB upto FY 2005-06 was Rs.1113 Cr. The RoE approved during FY 2005-06 is Rs.156 Cr (Rs.1113Cr x 14%) against Rs 176 Cr approved by the Commission in the tariff order of FY 2005-06.

4.29 In Tariff Order for FY 2006-07 RoE was approved on equity addition upto the beginning of the year and 30% of asset capitalized upto previous year was considered normative equity and remaining was treated as normative debt. The Assets capitalized during FY 2005-06 was Rs.1224 Cr. Thus RoE on asset addition during FY 2005-06 has been estimated to be @ 14% on normative equity addition i.e. 30% of total asset capitalized and @ 8.5% on equity addition over and above normative equity. Further the Commission has not allowed RoE on portion attributable to CWIP as per the methodology followed by the Commission in the tariff order for the year. Thus the Commission has approved Rs.145 Cr towards RoE for FY 2006-07 against Rs 162 Cr approved by the Commission in the tariff order of FY 2006-07. The RoE computation as approved by Commission for FY 2005-06 and FY 2006-07 has been summarized in Table 21.

Table 21: RoE (Rs Cr) for FY 2005-06 & FY 2006-07 as approved by Commission

Particulars	FY 2005-06	FY 2006-07
Opening Gross Fixed Assets (GFA)	1915.68	2636.99
Opening Capital Work in Progress (CWIP)	1198.28	1844.51
Total	**3113.96**	**4481.50**
(-) Consumers Contributions /Capital Grants	442.32	585.74
Opening Capital cost of project	**2671.64**	**3895.76**
Opening Debt	**1558.49**	**1949.22**
Debt ratio (%)	*58%*	*50%*
Opening Equity		
Equity Share Capital	23.12	23.12
Reserves / Surplus	1004.10	1406.83
Internal Accruals	942.41	951.64
Gross Equity	**1969.63**	**2381.58**
(-) Investments	1036.06	917.51
(-) Other Assets	1.77	8.06
(-) Net Current Assets	-181.35	-490.53
Net Opening Equity invested in Capex	**1113.15**	**1946.54**
Equity ratio (%)	*42%*	*50%*
Return on Equity (RoE)		
RoE @ 14% on opening equity	155.84	155.84
Add: RoE @ 14% on 30% of additional Capital Cost at the beginning of the year	-	51.41
Add: Interest on normative loan @ 8.5% on the additional equity invested till the beginning of the year	-	39.62
Gross RoE on the basis of above total net equity invested in capital expenditure including CWIP	**155.84**	**246.88**
Less: RoE portion attributable to CWIP at beginning of the year	-	101.61
Net RoE on assets added till the beginning of the year	**155.84**	**145.27**

Non Tariff Income (NTI)

4.30 The petitioner has submitted Non tariff income as per audited annual accounts for FY 2005-06 and FY 2006-07 was Rs.188 Cr and Rs.211 Cr, respectively.

Commission's View

4.31 The Commission observed that income from meter rent and other miscellaneous charges forming part of NTI had been included in revenue from sale in the audited income statement of erstwhile CSEB for FY 2005-06 and FY 2006-07. Thus the Commission has included this income as part of NTI and deducted it from revenue from sale of power. The NTI as proposed by petitioner and as approved by

Commission has been summarized in Table 22

Table 22: Non tariff income (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Non tariff income as per audited income statement		188	188		211	211
Add: Income from meter rent & misc. charges forming part of NTI		-	70		-	73
Total NTI	**204**	**188**	**258**	**282**	**211**	**284**

Other debits

4.32 The petitioner has submitted that other debits including provision for bad & doubtful debts for FY 2005-06 and FY 2006-07 was Rs.151 Cr and Rs.95 Cr, respectively.

Commission's View

4.33 The Commission observed that the bad debts submitted by the Petitioner at Rs 151 Cr are 5% of the total receivables for the year against the Rs 72 Cr of approved bad debts for the year (2.5% of the receivables for the year) and is much higher than the norm of 1% of receivables laid down by the Commission in CSERC Tariff Regulations, 2006. The Commission had allowed the total bad debts in Tariff Order of FY 2005-06 as Rs. 72 Cr (for all functions), with the condition that Board should strictly maintain the record of debt/ receivables written off and furnish this information to the Commission.

4.34 The Petitioner provided details of the actual debt written off during FY 2005-06 during the technical validation session at Rs 151 Cr. However, the Commission does not believe that it would be correct to burden the consumers with such high debts as submitted by the Petitioner as they are higher than the norms approved by the Commission. The Commission has thus approved only Rs.72 Cr as other debits including bad & doubtful debts for FY 2005-06 in accordance with the amount approved by it in Tariff Order for FY 2005-06.

4.35 For FY 2006-07, the Commission has gone by the provisions of the CSERC Tariff Regulations, 2006 which states that *"The Commission may consider a provision for writing off of bad and doubtful debts of distribution licensee upto 1% of receivables subject to actual writing off of bad and doubtful debts in the previous year in accordance with procedure laid down by the licensee."*

4.36 Thus the Commission has allowed bad and doubtful debts as 1% of the actual receivables during FY 2006-07. The other debits including bad and doubtful debts as proposed by petitioner and as approved by Commission has been summarized in Table 23.

Table 23: Other debits incl. bad & doubtful debts (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Other debits incl. bad & doubtful debts	72	151	72	30	95	33

Net Prior Period Expenses

4.37 The petitioner has submitted net prior period credit for FY 2005-06 was Rs.36 Cr, while net prior period debit for FY 2006-07 was Rs.18 Cr.

Commission's View

4.38 As per the audited annual accounts, there was a net prior period credit (income) of Rs.36 Cr during FY 2005-06 and net prior period debit (expense) of Rs.18 Cr during FY 2006-07. The Petitioner has wrongly considered Rs 36 Cr as an expense during FY 2005-06 and Rs 18 Cr as an income during FY 2006-07.

4.39 Accordingly, the Commission has reduced Rs 36 Cr from the expenses of FY 2005-06 and added Rs 18 Cr to the expenses of FY 2006-07 and approved net prior period charges for the respective years accordingly. The net prior period credits as proposed by petitioner and as approved by Commission has been summarized in Table 24

Table 24: Net prior period credit (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06		FY 2006-07	
	Petition	Approved	Petition	Approved
Net prior period expenses	36	(-) 36	(-)18	18

Income tax

4.40 The petitioner has submitted actual income tax paid during FY 2005-06 and FY 2006-07 was Rs.232 Cr and Rs.85 Cr respectively.

Commission's View

4.41 Income tax is a statutory requirement and the Commission has approved the actual income tax paid as pass through during FY 2005-06 and FY 2006-07. The proposed and approved income tax liability for FY 2005-06 and FY 2006-07 has been summarized below.

Table 25: Income tax (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Income tax actually paid	89	232	232	160	85	85

Revenue from sale of power

4.42 The petitioner has submitted revenue from sale of power as per audited annual accounts for FY 2005-06 and FY 2006-07 was Rs.2808 Cr and Rs.2923 Cr, respectively.

Commission's View

4.43 As noted above, the revenue from sale of power includes income from meter rent and other miscellaneous charges which form part of NTI. Thus the Commission has deducted the components of NTI from total revenue from sale of power and has considered it as a part on NTI for the respective year as shown in Table 22 above. The revenue from sale of power as proposed by petitioner and as approved by Commission has been summarized Table 26

Table 26: Revenue from sale of power (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Revenue from sale of power as per audited income statement		2808	2808		2923	2923
Less: Income from UI			0			11
Less: Income from meter rent & misc. charges forming part of NTI		-	70		-	73
Total Revenue from sale of power	**3087**	**2808**	**2738**	**2764**	**2923**	**2839**

Annual Revenue Requirement (ARR)

4.44 The annual revenue requirement (ARR) as proposed by petitioner and as approved by the Commission for FY 2005-06 and FY 2006-07 has been summarized in Table 27

Table 27: Annual Revenue Requirement (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Power Purchase Cost	1623	901	901	1113	1044	1033
Generation Cost	454	459	459	471	511	511
Employee Expenses	470	636	436	638	580	580
R&M Expenses	145	142	142	147	166	166
A&G Expenses	56	89	59	47	61	61
Depreciation	111	41	31	61	57	45
Interest & Finance Charges	225	239	239	287	166	165
Less: Int. & Other Expenses Capitalized	84	54	54	95	49	49
Other Debits (Incl. prov. For Bad Debts)	72	151	72	30	95	33
Misc. - Net Prior Period Credit		36	-36		-18	18
Income Tax Actually Paid	89	232	232	160	85	85
Total Expenses	**3161**	**2872**	**2482**	**2860**	**2698**	**2647**

Particulars	FY 2005-06			FY 2006-07		
	Approved in TO of FY 2005-06	Petition	Approved	Approved in TO of FY 2006-07	Petition	Approved
Add: Reasonable Return	176	270	156	162	322	145
Less: Other Non Tariff Income	204	188	258	282	211	284
Annual Revenue Requirement	**3133**	**2954**	**2380**	**2740**	**2809**	**2508**

Revenue Surplus/Deficit for FY 2005-06 and FY 2006-07

4.45 Based on above true up analysis, the revenue surplus/deficit as proposed by the petitioner and approved by the Commission for FY 2005-06 and FY 2006-07 has been summarized in Table 28

Table 28: Revenue Surplus/ deficit (Rs Cr) for FY 2005-06 & FY 2006-07

Particulars	FY 2005-06		FY 2006-07	
	Petition	Approved	Petition	Approved
Annual Revenue Requirement	2954	2380	2809	2508
Revenue from Sale of Power	2808	2738	2923	2839
Revenue Surplus/(Deficit)	**-146**	**358**	**114**	**331**

4.46 The revenue surplus for FY 2005-06 and FY 2006-07 has been carried forward while estimating the ARR for future years.

5 PROVISIONAL TRUING UP FOR FY 2007-08

5.1 The petitioner has submitted revised estimates for truing up ARR and revenue from sale of power for FY 2007-08 based on provisional annual accounts of erstwhile CSEB for FY 2007-08. The petitioner has proposed revenue surplus of Rs.88 Cr for FY 2007-08.

Commission's View

5.2 The audit of annual accounts of erstwhile CSEB for FY 2007-08 is reported to be in process by AG audit. This implies that the projections made for expenditure and income are liable to change. Further the expenditure of year 2007-08 has already been provisionally trued-up in the tariff order for FY 2009-10, and hence the Commission does not find it appropriate to carry out second provisional true-up of ARR for FY 2007-08. The Commission shall conduct the final true up for FY 2007-08 only after audited accounts are made available. The proposed and approved ARR and revenue surplus/gap for CSEB for FY 2007-08 has been summarized below:

Table 29: ARR and Revenue surplus/deficit (Rs Cr) for FY 2007-08

Particulars	Approved in TO FY 2007-08	Petition	Approved as per TO 2009-10
Power purchase cost	1216	1577	1207
Generation cost	538	676	612
Employee expenses	625	704	705
R&M expenses	142	179	179
A&G expenses	61	66	66
Depreciation	88	108	90
Interest & finance charges	396	276	277
Less: Int. & other expenses capitalized	206	121	127
Other debits (incl. prov. for bad debts)	31	12	12
Misc. - Net prior period credit		7	0
Income tax actually paid	10	32	191
Total expenses	**2901**	**3516**	**3212**
Add: Reasonable return	177	368	167
Less: Non tariff income	137	212	302
Less: Sale of power outside state		588	219
Annual Revenue Requirement (ARR)	**2941**	**3084**	**2858**
Revenue from sale of power within state	3046	3172	3078
Revenue surplus/(deficit)	**105**	**88**	**220**

6 PROVISIONAL TRUE UP FOR FY 2008-09

6.1 The petitioners have filed a true up petition for the period April-December 2008 for the erstwhile CSEB has been summarized below:

Table 30: ARR and Revenue surplus/(deficit) (Rs Cr) for CSEB for FY 2008-09 (upto December 31, 2008)

Particulars	Submitted by Petitioner
Power purchase cost	1384
Generation cost	685
Employee expenses	590
R&M expenses	169
A&G expenses	71
Depreciation	177
Interest & finance charges	263
Less: Int. & other expenses capitalized	-13
Other debits (incl. prov. for bad debts)	2
Misc. - Net prior period credit	0
Income tax actually paid	10
Total expenses	**3338**
Add: Reasonable return	477
Less: Non tariff income	-138
Less: Sale of power outside state	-1337
Annual Revenue Requirement (ARR)	**2339**
Revenue from sale of power within state	2689
Revenue surplus/(deficit)	**350**

6.2 The three successor companies, CSPGCL, CSPTCL and CSPDCL have also submitted separate True Up Petitions for the period January-March 2009 which has been summarized in Table 31

Table 31: ARR and Revenue surplus/deficit (Rs Cr) for CSPGCL, CSPTCL & CSPDCL for FY 2008-09 (January-March, 2009)

Particulars	CSPGCL	CSPTCL	CSPDCL
Power purchase cost	0	0	795
Generation cost	237	0	0
Employee expenses	111	33	215
R&M expenses	38	4	13
A&G expenses	11	5	22
Depreciation	31	28	12
Interest & finance charges	66	11	12
Less: Int. & other expenses capitalized	0	-1	-3
Other debits (incl. prov. for bad debts)	0	0	0.20
Misc. - Net prior period credit	0	0	-9
Income tax actually paid	0	0	4
Generation incentive	13	0	0
Total expenses	**507**	**79**	**1061**
Add: Reasonable return	41	0	25
Less: Non tariff income	4	1	26
Less: Sale of power outside state	0	0	0

Particulars	CSPGCL	CSPTCL	CSPDCL
Annual Revenue Requirement (ARR)	**544**	**78**	**1060**
Revenue from sale of power within state	368	56	1123
Revenue surplus/(deficit)	**-176**	**-22**	**64**

Commission's View

6.3 As elaborated earlier, the Commission has processed the true up petitions made by CSEB and the successor companies together. The provisional accounts for last quarter of FY 2008-09 as given by the companies have been combined with the provisional accounts of CSEB for first three quarters to arrive at the consolidated balance sheet and financial position of the CSEB for FY 2008-09.

6.4 The component-wise description of Commission's analysis for truing up FY 2008-09 for CSEB is given below.

Energy Sales

6.5 The Petitioner has submitted category wise sales for FY 2008-09 as recorded in the R-15 format. It has also restated sales for un-metered BPL and agricultural consumers for the purpose of distribution loss calculation. The Petitioner has considered the norm of 30 units /consumer/month for estimating sales to un-metered BPL consumers. For restating sales to unmetered agriculture category, it has considered the norm of 138 units/HP/month as had been considered by the Commission for projecting sales to this category in FY 2009-10. The restated sales for FY 2008-09 as submitted by petitioner are given in Table 32.

6.6 The Commission has considered the methodology of re-stating sales as proposed by the Petitioner for re-estimation of sales for un-metered BPL and agricultural consumers as it is in accordance with the methodology followed by the Commission in its previous tariff orders. Accordingly, it has considered the total sales for FY 2008-09 as 10918 MU as submitted by the Petitioner.

Table 32: Category wise energy sales for FY 2008-09 (MU)

Consumer Categories		Submitted	Approved
	LT Consumers		
LV-1.1	BPL Consumers	310	310
LV-1.2	Other Domestic	1607	1607
LV-2	Non Domestic	376	376
LV-3.1	Agriculture Metered	49	49
LV-3.2	Agriculture Flat Rate	1097	1097
LV-4	Agriculture Allied Services	6	6
LV-5	LT Industrial	400	400
LV-6	Public Utilities (PWW and SL)	125	125
LV-7	Temporary	97	97
	Sub Total – LT	**4068**	**4068**
EHV-1	Railway Traction	701	701
EHV-2	Heavy Industries	1831	1831
EHV-3	Steel Industries	143	143
EHV-4	Coal Mine, Cement & Other EHV Industry	505	505
	Total EHV	**3180**	**3180**

Consumer Categories		Submitted	Approved
HV-1	Steel Industries	2140	2140
HV-2	Coal Mines & Cement Ind.	361	361
HV-3.1	Other HT Ind 33 kV	424	424
HV-3.2	Other HT Ind 11 kV	19	19
HV-4.1	Low Load Factor Industries 33 kV	82	82
HV-4.2	Low Load Factor Industries 11 kV	1	1
HV-5.1	Residential Purpose 33 kV	**236**	**236**
HV-5.2	Residential Purpose 11 kV	3	3
HV-6.1	General Purpose Non Industrial 33 kV	183	183
HV-6.2	General Purpose Non Industrial 11 kV	61	61
HV-7.1	Public Water works & Irrigation 33 kV	25	25
HV-7.2	Public Water works & Irrigation 11 kV	14	14
	Temporary Supply 33 kV	4	4
	Temporary Supply 11 kV		
	Total HV	**3670**	**3670**
	Grand Total	**10918**	**10918**

Transmission and Distribution Loss

6.7 The Petitioner has submitted intra-state transmission loss of 5.04% for FY 2008-09.The Petitioner submitted distribution loss at 41.52% for FY 2008-09 based on the total energy input and output in the state.

Table 33: Distribution Loss for FY 2008-09 submitted by CSPDCL (MUs)

Particulars	Petition
Energy input from CSPGCL Station at 132 kV & above	12315
Energy Input from CPP/IPP at 132 kV & above	4399
Energy Input from CGS at Ex-WR	4173
Less Interstate Transmission Losses	233
Net Energy Input from CGS at Ex-CG	3940
Energy Input from Others (Traders, SWAPs)	172
Total Energy Input	**20826**
Interstate Sales at Ex-WR	1812
Add Interstate Transmission Loss	107
Interstate Sales at Ex-WR with Losses	1920
Open Access Exchanges at Ex-WR	954
Add Interstate Transmission Losses	57
Add Intrastate Transmission Loss	54
Net Open Access Exchanges	1064
Net (OD)/UD	1515
Net Energy Available for CSPDCL	**16327**
Intrastate Transmission Losses	823
Net Energy Available after Transmission Loss	**15504**
EHV Sales	3180
Energy Input from CSPGCL Station at 33 kV	32
Energy Input from CPP/IPP at 33 kV	876
Net Energy Input at 33 kV	**13232**

Particulars	Petition
Energy Sales to LV (Sales restated for unmetered BPL and	4068
Energy Sales to HV	3670
Total Energy Sales to LV + HV	**7737**
Distribution Losses w.r.t 33 kV Distribution input	**41.52%**

6.8 The Commission has considered the transmission loss as submitted by the Petitioner (at 5.04%) for FY 2008-09.

6.9 The Commission has not considered the methodology adopted by the Petitioner in calculation of distribution loss for the year. Following the methodology adopted by it in its previous tariff order, the Commission has re-calculated the distribution loss for FY 2008-09 at 42.02% as shown in Table 34.

6.10 The Commission has noted with concern that the distribution loss of the Petitioner has increased sharply in FY 2008-09 and was more than 4% higher than even the approved loss level of FY 2007-08.

6.11 The Commission does not wish to burden the consumers with the inefficiencies of CSPDCL on account of increase in distribution loss and has therefore decided to approve the distribution loss at a reasonable level only. The Commission had set CSPDCL a distribution loss target of 37.92% in FY 2007-08[1]. While the Commission had not come out with tariff order for FY 2008-09 for the Petitioner and had therefore not set any distribution loss target for that year, it expects that the distribution loss should not have increased beyond the loss approved by it for FY 2007-08. In fact the Petitioner should have made all efforts to decrease the loss and achieve a level of loss at least below the approved loss of FY 2007-08. As per the submission of the Petitioner it achieved a reduction of 0.77% in distribution losses in FY 2007-08. The Commission has approved the distribution loss for FY 2008-09 considering the same reduction in loss level over the approved loss level of FY 2007-08. Thus the Commission has approved the distribution loss for FY 2008-09 at 37.15% only. It has also decided to disallow the power purchase cost corresponding to the additional energy procured by the Petitioner.

Table 34: Distribution Loss for FY 2008-09 approved by the Commission

	Re-calculated by the Commission	Approved Distribution Loss
Energy delivered to DISCOM on 33 KV side of power	12465	
Add: Energy Input from CSPGCL Station at 33 kV	43	
Add: Energy Input from CPP/IPP at 33 kV	839	
Energy Input at Distribution Periphery below EHV level (MU)	13347	12312
Energy Sales to LV	4068	4068
Energy Sales to HV	3670	3670
Distribution Loss (MU)	5609	4574
Distribution Loss (%)	**42.02%**	**37.15%**

[1]Till FY 2007-08, the Commission computed distribution loss by considering the total energy input in the system and total sales, including EHV sales and had accordingly approved distribution loss for FY 2007-08 at 29.71%. Re-computed as per the current methodology, the approved loss for FY 2007-08 was 37.92%.

Power Purchase Cost and Transmission Charges

6.12 The Petitioner has submitted power purchase cost for April-Dec 2008 as Rs 1384 Cr including cost of power purchased from CGS stations, CPP/IPPs, biomass, UI (but not including income earned from UI) and inter-state transmission charges.

6.13 The power purchase cost for Jan-Mar'09 has been submitted separately at Rs 795 Cr which includes cost of power purchased from CGS stations, CSPGCL, biomass, and intra-state transmission charges and inter-state transmission charges. However, as per the provisional accounts submitted by CSPDCL, the power purchase cost for Jan-Mar'09 was Rs 792 Cr only which includes Rs 459 Cr as payment made to CSPGCL and CSPTCL and Rs 333 Cr as cost of power purchase from other sources including CGS, biomass etc.

Segregation of Power Purchase Cost between CSPDCL and CSPTrCL for Jan-Mar'09

6.14 During the TVS, CSPDCL submitted that the accounting transactions of all the successor companies of CSEB for the Jan-Mar'09 have been undertaken by CSPHCL as per terms of Government of Chhattisgarh notification no F – 21/13/2009/13/2 dt. 31-03-2010. The segregation of accounts between respective successor companies were also undertaken by CSPHCL. Further, the segregation of accounts between CSPDCL and CSPTrCL has been undertaken as per the report of the High Power Committee.

6.15 As per the said report the total power purchased from all sources has been segregated between CSPDCL and CSPTrCL considering the revised transfer scheme (CSEB Transfer Scheme Rules, 31.3.2010) issued by the Govt. of Chhattisgarh in supersession of the scheme earlier notified vide notification dated 31.12.2008.

6.16 Accordingly, it has been inferred that power from all sources with which the erstwhile CSEB had a long term contract shall be in account of CSPDCL and all short term power purchase shall be in the account of the CSPTrCL.

6.17 Thus all power from CSPGCL and firm allocation to the state from the Central Generating Stations should belong to CSPDCL. Also, M/s Jindal Steel and Power Limited (JSPL) power should be in the account of the CSPDCL as erstwhile CSEB had a long term contract with M/s JSPL and that of M/s Jindal Power Limited (JPL) power shall be in the account of the trading company. Rest all of the CPPs and IPPs, which have short term contract (for a period of one year), should be in the account of the trading company. Further, due to the fact that CSPDCL is a member of the UI pool account the entire UI should go to CSPDCL.

6.18 Following the above principle the power purchase cost on account of short term power procured from CPPs/IPPs, which has been sold as bilateral sales or at the power exchanges, has been transferred to CSPTrCL. Only the cost of short term power procured from CPP/IPPs that has been used by CSPDCL for meeting demand of its consumers has been borne by CSPDCL.

6.19 During the process of segregation of accounts, the transmission charges payable to CSPTCL for the use of transmission system have also been shared between CSPDCL and CSPTrCL.

6.20 For the approval of ARR for FY 2008-09, the Commission is considering the ARR for the Board as a whole. In calculating the power purchase for the Board as a whole for FY 2008-09, the Commission has considered power purchase cost at Rs 1369 Cr as per the provisional accounts of CSEB for the period April-Dec'08, which includes cost of power purchased from CGS, CPP/IPPs and inter-state transmission charges.

6.21 With regards to the power purchase cost for Jan-Mar'09, the Commission at present has considered, provisionally, the scheme of segregation of power purchase cost, including intra-state transmission charges, between CSPDCL and CSPTrCL as per the Report of the High Power Committee. It has also considered the power purchased from biomass generators in the account of CSPDCL. However, the matter is yet to be resolved and will be re-looked into by the Commission in the subsequent final true up. Thus for the purpose of this provisional true up the Commission has considered the power purchase cost for the period Jan-Mar'09 as per the provisional accounts of CSPDCL for the period. Since the ARR has been allowed for the Board as a whole the Commission has only considered the cost of power purchase from CGS, biomass, and inter-state transmission charges even for Jan-Mar'09. The cost of power purchase from CSPGCL and intra-state transmission charges payable to CSPTCL have not been considered as a part of the power purchase cost for calculation of ARR for the Board as a whole as the cost of these two functions has already been included in the other components of the ARR of the Board.

UI Income

6.22 The Commission has also reduced net UI income for the year from the power purchase cost and has not considered it as revenue from inter-state sales as had been done by the Petitioner. The net UI income for April-Dec'08 has been considered as Rs 495 Cr as per the provisional accounts of CSEB for the period.

6.23 For the period Jan-Mar'09, CSPDCL has submitted that out of the total revenue of Rs 292 Cr from inter-state sales shown in the provisional accounts, Rs 280 Cr is on account of income from UI and the remaining is on account of income from bilateral sales. The Commission has considered the actual UI amount received by CSPDCL during the period i.e. Rs 280 Cr and has reduced the same from the power purchase cost for period.

Table 35: Power Purchase Cost for FY 2008-09 (Rs Cr)

Particulars	Apr-Dec'08		Jan-Mar'09		FY 2008-09 (Total)	
	Petition	**Commission (as per A/cs)**	**Petition**	**Commission (as per A/cs)**	**Petition**	**Commission (as per A/cs)**
Power Purchase from CGS & private sector	1,370	1,319.55	334	564.36	-	1,883.91
Less: Power Purchase Cost transferred to CSPTrCL				250.87		250.87
Inter-state transmission charges		50.18		19.94		70.11
Power Purchase from CSPGCL and intra-state transmission Charges			461	459.42	-	*
Total Power Purchase		**1,369.73**		**792.85**		**1,703.16**
UI Charges/ (Net UI Income)	14	(495.29)		(280.69)		(775.98)
Net Power Purchase	**1,384**	**874.44**	**795**	**512.16**	**1,718**	**927.18**

*The cost of power purchase from CSPGCL and intra-state transmission charges payable to CSPTCL have not been considered as a part of the power purchase cost for calculation of ARR for CSEB as a whole as the cost of these two functions has been included in the other components of the ARR of CSEB.

Disallowance of Power Purchase Cost

6.24 As has been mentioned in 6.11 the Commission does not wish to burden the consumers with the inefficiencies of the Petitioner and has therefore decided to approve the distribution loss at a stringent level for FY 2008-09. It has also decided to disallow the power purchase cost corresponding to the additional energy procured by Petitioner due to its inability to reduce the distribution loss during FY 2008-09.

6.25 Accordingly, the Commission has disallowed power purchase cost corresponding to 1034 MUs at the average power purchase rate of Rs 1.49/unit i.e. Rs 154 Cr. The average power purchase rate has been calculated taking into account the power purchase from CGS, generating stations of CSPGCL (at the approved rate for generation for the year i.e. Rs 1.08/unit) and CPP/IPPs, less the power purchase cost of energy transferred to CSPTrCL.

Table 36: Approved Power Purchase Cost for FY 2008-09

Source	Cost (Rs Cr)
Power Purchase Cost	**927.18**
Less: Power Purchase Cost Disallowed	154.19
Net Power Purchase Cost	**772.99**

Generation cost

6.26 The Commission asked the petitioner to submit additional information on station-wise actual operational parameters and generation for erstwhile CSEB for April-December 2008 and for CSPGCL for January-March 2009. The station-wise actual performance of petitioner for FY 2008-09 has been summarized below:

Table 37: Station-wise actual operational parameters & generation for FY 2008-09

Station Name	Financial Year	PLF (%)	Aux. Cons. (%)	SOC (ml/kWh)	SHR (kCal/kWh)	Gross Gen. (MU)	Net Gen. (MU)
HTPS	2008-09 (Apr-Dec 08)	82.95	8.84	0.76	2,625	4,599	4,192
	2008-09 (Jan-Mar 09)	98.38	8.33	0.23	2,529	1,785	1,636
	2008-09 (Total)	**86.52**	**8.70**	**0.61**	**2,596**	**6,384**	**5,829**
KTPS – PH II	2008-09 (Apr-Dec 08)	79.21	11.77	3.34	3,224	1,046	923
	2008-09 (Jan-Mar 09)	92.44	10.43	1.37	3,253	399	358
	2008-09 (Total)	**82.47**	**11.40**	**2.80**	**3,228**	**1,445**	**1,280**
KTPS – PH III	2008-09 (Apr-Dec 08)	76.88	8.87	4.16	2,844	1,218	1,110
	2008-09 (Jan-Mar 09)	86.79	8.55	1.36	2,809	450	411
	2008-09 (Total)	**79.33**	**8.78**	**3.40**	**2,834**	**1,668**	**1,521**
DSPM	2008-09 (Apr-Dec 08)	82.38	7.50	1.71	2,444	2,719	2,515
	2008-09 (Jan-Mar 09)	92.17	7.51	0.41	2,420	995	921
	2008-09 (Total)	**84.80**	**7.51**	**1.36**	**2,437**	**3,714**	**3,435**
Hydro	2008-09 (Apr-Dec 08)	-	0.60	-	-	229.13	227.75
	2008-09 (Jan-Mar 09)	-	0.52	-	-	69.69	69.33
	2008-09 (Total)	**-**	**0.58**	-	-	**298.83**	**297.08**
Kawardha Co-gen	2008-09 (Apr-Dec 08)	-	-	-	-	5.30	3.66
	2008-09 (Jan-Mar 09)	-	-	-	-	1.33	0.79
	2008-09 (Total)	-	-	-	-	**6.63**	**4.45**

Station Name	Financial Year	PLF (%)	Aux. Cons. (%)	SOC (ml/kWh)	SHR (kCal/kWh)	Gross Gen. (MU)	Net Gen. (MU)
Total	2008-09 (Apr-Dec 08)	81.55	8.61	-	-	9815	8971
	2008-09 (Jan-Mar 09)	94.41	8.23	-	-	3701	3396
	2008-09 (Total)	**84.72**	**8.50**	-	-	**13516**	**12367**

6.27 As the Commission has not approved any targets/benchmarks for FY 2008-09, the comparison of actual performance has been done with the approved benchmarks for FY 2009-10 in previous tariff order wherein the Commission had approved overall PLF for thermal stations for FY 2009-10 to be 82.66%. In comparison, the overall PLF for thermal stations achieved in FY 2008-09 is 84.72% i.e. an increase of approx. 2 percentage points. Similarly the auxiliary consumption for all stations for FY 2009-10 was approved at 9.00%, while the actual auxiliary consumption achieved in FY 2008-09 is 8.50%. Further, the actual gross generation for FY 2008-09 of 13516 MU is higher than the approved total gross generation for FY 2009-10 of 13267 MU. Similarly, actual net generation in FY 2008-09 of 12367 MU is higher than the approved net generation for FY 2009-10 of 12073 MU. Thus it can be seen that the actual performance of the generating stations of erstwhile CSEB/CSPGCL during FY 2008-09 has been better than the approved generation for FY 2009-10.

6.28 In view of the above, the Commission has approved the actual cost incurred for generation on the basis of provisional accounts for FY 2008-09. The actual generation cost for erstwhile CSEB for the period April-December 2008, as per provisional accounts, was Rs.685 Cr, which has been approved by Commission. The actual generation cost as per provisional accounts for January-March 2009 period was Rs.221 Cr. However this amount does not include internal coal transport cost for Korba West and Korba East of Rs.2.55 Cr and other fuel related expenses of Rs.16.50 Cr, hence they have been added to the generation cost. Further it includes Rs.3.60 Cr on account of coal conveyor and crusher expenses which are not part of coal cost, hence this has been reduced from the generation cost. Thus the adjusted generation coal cost for the period January-March 2009 was Rs.236.70 Cr, which has been approved by the Commission. Thus the total generation cost approved for FY 2008-09 was Rs.922 Cr as summarized in Table 38

Table 38: Generation cost (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Generation cost	922	685	237	922

Employee cost

6.29 The actual salaries and wages incurred during FY 2008-09, as per the provisional accounts, was Rs.543 Cr which included Rs.406.26 Cr for April-December 2008 period for erstwhile CSEB and Rs.136.48 Cr for January-March period for the successor companies taken together. The contribution made to the Pension Fund made by CSEB during April-December 2008 period was Rs.100 Cr and by all three power companies together during January-March 2009 was Rs.195.59 Cr (excluding contribution to the Fund on account of CSPHCL employees). In addition, the annual outgo to retired employees during the year was Rs.111.63 Cr.

6.30 The Commission has allowed actual contribution made to the pension fund during FY

2008-09. In accordance with the principles adopted by the Commission in the tariff order for FY 2007-08, the Commission has not separately considered the annual outgo during FY 2008-09. The Commission would like to clarify that as the contribution towards pension fund is allowed in ARR, the companies should meet the annual outgo of terminal benefits out of contribution made to the fund and interest earned from the deposits made in the fund. There is thus no need to separately allow any annual outgo towards terminal benefits. Thus the Commission has approved Rs.838.33 Cr as the employee cost for FY 2008-09 as summarized below:

Table 39: Employee cost (Rs Cr) for FY 2008-09

Sl. No.	Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
1	Salaries & wages (excl. terminal benefits)		406.26	136.48	542.75
2	Terminal benefits				
	Contribution to Gratuity & Pension Fund		100.00	195.59	295.59
3	**Total Employee Cost (1+2)**	**949**	**506.26**	**332.07**	**838.33**

Repair and Maintenance (R&M) cost

6.31 The actual R&M cost incurred during FY 2008-09, as per the provisional accounts, was Rs.219 Cr which included Rs.169 Cr for April-December 2008 period for erstwhile CSEB and Rs.50 Cr for January-March period for the successor companies taken together. The Commission has approved the actual R&M cost for FY 2008-09 as summarized below:

Table 40: R&M cost (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
R&M cost	223	169	50	219

Administration & General (A&G) cost

6.32 The total A&G expenditure during FY 2008-09 taken together for erstwhile CSEB for April-December 2008 and for CSPGCL, CSPTCL and CSPDCL for January-March 2009 has been projected to be Rs.109 Cr. While the A&G expenditure reported for FY 2007-08 was Rs 78 Cr only. Thus the Commission considers the A&G expenses submitted by the companies as excessively high and unreasonable.

6.33 During TVS, the companies submitted that the increase in A&G cost is mainly on account of inter-company allocation of expenditure of common services department i.e. CSPHCL as per the revised CSEB Transfer Scheme. Out of the total A&G expenditure of Rs.109 Cr, Rs.13.53 Cr is the employee and other expenses of CSPHCL that have been allocated to the three successor companies and remaining Rs.95 Cr is the actual A&G expenditure of the board during FY 2008-09. The Commission has observed that the increase in A&G expenses has not been only on account of allocation of CSPHCL expenses as argued by the companies and no suitable explanation has been given for the net A&G expenditure of Rs.95 Cr.

6.34 Thus the Commission has approved Rs.86.12 Cr as the net A&G expenses for the board during FY 2008-09 which is an increase of 10% over the A&G expenses of FY 2007-08 i.e. Rs.78 Cr. The Commission has also allowed the share of employee expenses of the CSPHCL allocated to the companies i.e. Rs.13.53 Cr. Thus, the Commission has approved total A&G expenses of Rs.99.65 Cr for FY 2008-09 as summarized below:

Table 41: A&G cost (Rs Cr) for FY 2008-09

	Submitted as part of the Additional Information			Approved		
	A&G Expenses	CSPHCL Expenses	A&G Expenses	A&G Expenses	CSPHCL Expenses	A&G Expenses
A&G cost	95.15	13.53	108.69	86.12	13.53	99.65

Depreciation

6.35 The Commission observed that the petitioner's had calculated depreciation on assets of CSEB added till 31 December, 2008 twice – first as a part of the petition submitted for CSEB (till Dec 31 2008) and also in the petition submitted by successor companies for Jan-Mar 2009 – leading to high depreciation expenses being submitted for the year. The Commission has estimated depreciation for FY 2008-09 on the opening GFA as per the rates specified in the CSERC's Tariff Regulations 2006 on the basis of SLM methodology and on additions in GFA during the year on pro-rata basis. Further, the Commission has also reduced depreciation on account of consumer contribution and grants from the gross depreciation. Thus the net depreciation approved for FY 2008-09 was Rs.144.60 Cr as summarised below:

Table 42: Depreciation (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Depreciation	249	101	43	144

Interest & finance charges

6.36 In the previous tariff orders, Commission has approved actual interest & finance charges incurred during the year but excluding interest on working capital. Same methodology has been adopted for truing up interest & finance charges for FY 2008-09. The actual interest & finance charges excluding interest on working capital incurred during FY 2008-09, as per the provisional accounts, was Rs.322 Cr which included Rs.250 Cr for April-December 2008 period for erstwhile CSEB and Rs.72 Cr for January-March period for the successor companies taken together. The Commission has approved the actual interest & finance charges for FY 2008-09 as summarized below:

Table 43: Interest & Finance charges (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Interest & finance charges	352	250	72	322

Interest & other expenses capitalized

6.37 The interest & other expenses capitalised during FY 2008-09, as per the provisional accounts, was Rs.17.39 Cr which included Rs.12.87 Cr for April-December 2008 period for erstwhile CSEB and Rs.4.52 Cr for January-March period for the successor companies taken together. The Commission has approved the actual interest & other expenses capitalised during FY 2008-09 as summarized below:

Table 44: Interest & other expenses capitalised (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Interest & other expenses capitalized	17	12.87	4.52	17.39

Return on equity (RoE)

6.38 The Commission observed that the petitioner's had calculated RoE on assets of CSEB added till 31 December, 2008 twice – first as a part of the petition submitted for CSEB (till Dec 31 2008) and also in the petition submitted by successor companies for Jan-Mar 2009 – leading to high RoE expenses being submitted for the year. The Commission has estimated the RoE till beginning of FY 2008-09 as per the methodology approved by it in the Tariff Order for FY 2007-08 as given below.

Table 45: RoE (Rs Cr) till beginning of FY 2008-09 as approved by Commission

Particulars	Upto 31.03.2008
RoE @ 14% on total net Equity Invested in Capex up to 31.3.2005	155.84
Add: RoE @ 14% on 30% of additional capital cost incurred during 31.03.2005 to 31.03.2008	131.32
Add: Interest on normative loan @ 8.5% on the additional equity invested till 31.03.2008	73.04
Gross RoE on the basis of above net equity invested in Capex including CWIP	**360.20**
Less: RoE portion attributable to CWIP as on 31.03.2008	81.30
Net RoE on assets added till 31.03.2008	**278.89**

6.39 The Commission has also allowed RoE on equity portion of additional capitalization during FY 2008-09 on pro-rata basis as summarized below:

Table 46: Approved RoE (Rs Cr) on additional capitalisation for FY 2008-09

Particulars	FY 2008-09
GFA as on 01.04.2008	5444
GFA as on 31.12.2008	6253
Additional capitalization during Apr-Dec 2008	809
Normative equity component @ 30% of capitalization	*243*
RoE on normative equity @ 14%	**17**
Additional capitalization during Jan-Mar 2009 (total for CSPGCL, CSPTCL, CSPDCL)	234
Normative equity component @ 30% of capitalization	*70*
RoE on normative equity @ 14%	**5**
Total RoE on additional capitalization during FY 2008-09	**22**

Note: This does not include GFA for the holding company i.e. CSPHCL of Rs.9.33 Cr

6.40 The approved total RoE for FY 2008-09 is as summarized below:

Table 47: RoE (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Total	543	279	22	301

Non Tariff Income (NTI)

6.41 The actual non tariff income for the period April-December 2008 for the erstwhile CSEB, as per the provisional annual accounts, was Rs.138 Cr. However the Commission observed that income from meter rent and other miscellaneous charges of Rs.65 Cr which forms part of NTI had instead been included in revenue from sale of power. Thus the Commission has added this income in NTI and deducted it from revenue from sale of power resulting in adjusted NTI of Rs.203 Cr for April-December 2008.

6.42 The actual NTI for the period January-March 2009 for the three successor companies together, as per provisional accounts, was Rs.32 Cr. This also includes NTI on account of income from meter rent and other miscellaneous charges of Rs.22 Cr. This has been added to NTI by the Commission resulting in adjusted NTI for the period January-March 2009 of Rs.54 Cr. The approved NTI for FY 2008-09 has been summarized below:

Table 48: Non tariff income (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Non tariff income as per provisional accounts	169	138	32	170
Add: Income from meter rent & misc. charges		65	22	87
Total Non tariff income	**169**	**203**	**54**	**257**

Other debits

6.43 The other debits during FY 2008-09, as per the provisional accounts, was Rs.1.98 Cr which included Rs.1.77 Cr for April-December 2008 period for erstwhile CSEB and Rs.0.21 Cr for January-March period for the successor companies taken together. The Commission has approved the other debits for FY 2008-09 as summarized below:

Table 49: Other debits (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Other debits	2	1.77	0.21	1.98

Net prior period Expenses

6.44 As per the provisional annual accounts, there was a net prior period credit of Rs.17 Cr during FY 2008-09, which included net prior period credit of Rs.0.50 Cr for erstwhile CSEB for the April-December 2008 period and Rs.16 Cr for the successor companies taken together for January-March period. The Commission has approved net prior period charges as per the provisional accounts for FY 2008-09 as summarized below:

Table 50: Net prior period expenses (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Net prior period Expenses	-9	(-)0.50	(-)16	(-)17

Income tax

6.45 Income tax is a statutory requirement and hence is a pass through in ARR. The actual income tax paid during April-December 2008 by erstwhile CSEB was Rs.10 Cr and this has been approved by Commission. During the period January-March 2009, the three successor companies have submitted no income tax was actually paid during the period even though CSPDCL has submitted tax on RoE as Rs 4 Cr separately in its petition. Since no tax was actually paid during January-March 2009, the Commission has approved no income tax for the last quarter. The approved income tax liability for FY 2008-09 has been summarized below:

Table 51: Income tax (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Income tax	14	10	0	10

Generation incentive

6.46 As per Regulation 23 of CERC Regulations 2004 read with regulation 5 (1) of CSERC Tariff Regulations 2006, generation company is entitled for incentive at a flat rate of 25 paise/kWh for actual ex-bus energy in excess of target ex-bus energy. CSPGCL has claimed separate generation incentive for its above par performance during the period January-March 2009. The comparative of the sent out energy during January-March 2009 is as given below:

Table 52: Ex-bus energy approved v/s actual sent out energy (MU)

Particulars	As per TO 09-10 *	Actual as per true up petition	Difference claimed
Sent out energy (ex-bus)	2892	3396	504

*Note: * taken as pro-rata for three months on basis of approved generation in Tariff order 2009-10*

6.47 Accordingly, CSPGCL has claimed generation incentive on the excess generation of 504 MU @ 25 paise/kWh amounting to Rs.12.60 Cr for the period January-March 2009.

6.48 The Commission appreciates the efforts made by CSPGCL to achieve higher generation. However it is of the view that during FY 2008-09, CSPGCL has recovered the cost at average tariff and not in two part tariff. Thus the component of incentive pertaining to fixed cost has been already allowed to CSPGCL. Thus the Commission has not approved generation incentive separately as summarized below:

Table 53: Generation incentive (Rs Cr) for January-March 2009

Particulars	Proposed by CSPGCL	Approved
Generation incentive	12.60	0

Revenue from sale of power

Revenue from Inter-State Sales

6.49 The revenue from inter-state sales for the erstwhile CSEB during April-December 2008, as per provisional accounts, was Rs.1337 Cr. For the period Jan-Mar'09, CSPDCL has submitted that the total revenue from inter-state sales was Rs 292 Cr as shown in the provisional accounts for the period.

Segregation of Revenue from inter-state sales between CSPDCL and CSPTrCL

6.50 CSPDCL has also submitted that the revenue from inter-state sales included in the ARR is as per the provisional accounts of the company for the year. The accounting transactions of all the successor companies of CSEB for the Jan-March 2009 period have been undertaken by CSPHCL as per terms of Government of Chhattisgarh notification no F – 21/13/2009/13/2 dt. 31-03-2010. The segregation of accounts between respective successor companies was also undertaken by CSPHCL. Further, the segregation of accounts between CSPDCL and CSPTrCL has been undertaken as per the Report of the High Power Committee.

6.51 As per the Report of the High Power Committee the total power purchased from all sources has been segregated between CSPDCL and CSPTrCL considering the revised transfer scheme (CSEB Transfer Scheme Rules, 31.3.2010) issued by the Govt. of Chhattisgarh in supersession of the scheme earlier notified vide notification dated 31.12.2008.

6.52 Accordingly, it has been inferred that power from all sources with which the erstwhile CSEB had a long term contract shall be in account of CSPDCL and all short term power purchase shall be in the account of the trading company.

6.53 Thus all power from CSPGCL and firm allocation to the state from the Central Generating Stations should belong to CSPDCL. Also, M/s Jindal Steel and Power Limited (JSPL) power should be in the account of the CSPDCL as erstwhile CSEB had a long term contract with M/s JSPL and that of M/s Jindal Power Limited (JPL) power shall be in the account of the trading company. Rest all of the CPPs and IPPs, which have short term contract (for a period of one year), should be in the account of the trading company. Further, due to the fact that CSPDCL is a member of the UI pool account the entire UI should go to CSPDCL.

Following the above principle the revenue from sale of power through bilateral sales and power exchanges has been divided between CSPDCL and CSPTrCL.

6.54 The Commission has stated in its previous tariff orders that the UI income earned by CSPDCL should be reduced from the total power purchase cost of the company and should not be included as a part of income from inter-state sales. Accordingly, the Commission has reduced UI income from the total power purchase cost and revenue from inter-state sales for the purpose of provisional true up.

6.55 With regards to the revenue from inter-state sales the Commission at present has considered, provisionally, the scheme of segregation of revenue from inter-state sales between CSPDCL and CSPTrCL as proposed by CSPDCL. However, the matter is yet to be completely resolved and will be re-looked into by the Commission during the final true up for FY 2009-10.

6.56 The Commission has observed net revenue from inter-state sales at Rs.839 Cr during the year 2008-09 as per the submissions made by the petitioners. The same will however be re-looked into, and trued up, during the final true up for FY 2008-09.

6.57 As stated above, the Commission has reduced net UI income for the year from the power purchase cost and has not considered it as a part of the revenue from inter-state sales during the period. The UI income during April-December period as per provisional accounts was Rs.495 Cr which has been reduced from the revenue from inter-state sales for the period as shown in Table 35. Similarly, for the period Jan-Mar'09, CSPDCL has submitted Rs 280 Cr is on account of income from UI and the remaining is on account of income from bilateral sales. The Commission has considered the actual UI amount received by CSPDCL during the period i.e. Rs 280 Cr and has reduced the same from the revenue from inter-state sales.

Revenue from sale of power within state

6.58 The revenue from sale of power within the state for erstwhile CSEB for the period April-December 2008 and for CSPDCL for the period January-March 2009, as per the provisional accounts, was Rs.2689 Cr and Rs.831 Cr, respectively. However as noted above, the revenue from sale of power within state includes income from meter rent and other miscellaneous charges which form part of NTI. Thus the Commission has considered the components of NTI in NTI for the year and not in total revenue from sale of power within state. The approved revenue from sale of power within state for FY 2008-09 has been summarized below:

Table 54: Revenue from sale of power (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09*
Revenue from sale of power within state	3812	2689	831	3520*
Less: Income from meter rent & misc. charges forming part of NTI		64	22	86
Total revenue from sale of power within state	**3812***	**2625**	**809**	**3434***

*Revenue from inter-state sales and UI were considered as a part of revenue from sale of power by the Petitioner (for Jan-Mar 2009). However, the Commission has reduced income from UI from power purchase cost and has considered revenue from inter-state sales separately.

Annual Revenue Requirement (ARR) for FY 2008-09

6.59 The annual revenue requirement (ARR) as approved by the Commission for FY 2008-09 has been summarized below.

Table 55: Annual Revenue Requirement (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved FY 2008-09
Power Purchase Cost (excluding state generating stations)	1718	773*
Generation Cost	922	922
Employee Expenses	949	838
R&M Expenses	223	219
A&G Expenses	109	100
Depreciation	249	145
Interest & Finance Charges	352	322
Less: Int. & Other Expenses Capitalized	17	17
Other Debits (Incl. prov. For Bad Debts)	2.20	1.98
Misc. - Net Prior Period Expenses	-9	-17

Particulars	Petition FY 2008-09	Approved FY 2008-09
Income Tax Actually Paid	14	10
Generation incentive	13	0
Total Expenses	**4524**	**3296**
Add: Reasonable Return	543	301
Less: Other Non Tariff Income	169	257
Less: Revenue from inter-state sales	1337*	839*
Annual Revenue Requirement	**3560**	**2501**

*Net UI income has been reduced from power purchase cost and has not been considered as revenue from sale of power as submitted by the Petitioner

Revenue Surplus/Deficit for FY 2008-09

6.60 Based on above true up analysis, the revenue surplus/deficit as proposed by the petitioner and approved by the Commission for FY 2008-09 has been summarized below.

Table 56: Revenue Surplus/deficit (Rs Cr) for FY 2008-09

Particulars	Petition FY 2008-09	Approved Apr-Dec 2008	Approved Jan-Mar 2009	Approved FY 2008-09
Annual Revenue Requirement	**3560**	**1728.45**	**772.41**	**2501**
Revenue from sale of power within state	3812	2625	809	3434
Revenue surplus/(deficit)	**252**	**896.47**	**36.49**	**933**

6.61 The revenue surplus for FY 2008-09 has been carried forward while estimating the ARR for future years.

7 PROVISIONAL TRUING UP FOR CSPGCL FOR FY 2009-10

7.1 This section contains a summary of the True up Petition for the period FY 2009-10 as submitted by Chhattisgarh State Power Generation Company (CSPGCL) and the analysis/ observation/ of the Commission thereof.

Generation cost

7.2 The Commission in Tariff Order for FY 2009-10 had approved Rs.855 Cr as the generation cost. However the actual generation cost has increased due to increase in coal transport cost which was not considered earlier and rise in oil prices during FY 2009-10. Further the actual generation in FY 2009-10 was also higher than the targeted generation which has also resulted in increase in costs. Thus CSPGCL has submitted that actual generation cost for FY 2009-10 based on provisional accounts and other adjustments was Rs.950 Cr.

Commission's View

7.3 The Commission asked CSPGCL to submit additional information on station-wise actual generation and other operational parameters for FY 2009-10. The Commission examined the actual performance of petitioner vis-à-vis the approved operational parameters as summarized below:

Table 57: Station-wise operational parameters approved in Tariff Order 2009-10 vs. actual

Station Name	PLF (%)		Aux. Cons. (%)		SHR (kCal/kWh)		SOC (ml/kWh))	
	App. in TO	Actual	App. in TO	Actual	App. in TO	Actual	App. in TO	Actual
HTPS	82.00	88.60	9.00	8.72	2,650	2,560	1.00	0.48
KTPS - Ph II	84.00	80.07	11.00	11.44	2,915	3,355	1.50	3.01
KTPS - Ph III	79.00	72.85	9.00	9.35	2,677	2,977	1.50	2.56
DSPM	85.00	87.65	9.00	7.78	2,500	2,482	1.00	0.76
Hydro	-	-	0.60	0.77	-	-	-	-

7.4 As can be seen, the overall performance vis-à-vis operational parameters have been better than the targeted parameters especially in case of HTPS and DSPM thermal stations. Further, the actual generation during FY 2009-10 has also been higher than the approved generation as shown below:

Table 58: Station-wise generation as approved in Tariff Order 2009-10 vs. actual

Station Name	Gross Generation (MU)		Net Generation (MU)	
	App. in TO	Actual	App. in TO	Actual
HTPS	6,034	6,520	5,491	5,951
KTPS - Ph II	1,472	1,403	1,310	1,242
KTPS - Ph III	1,661	1,532	1,511	1,388
DSPM	3,723	3,839	3,388	3,540
Hydro	361.26	247.15	359.08	245.25
Kawardha Cogeneration	15.80	5.73	14.22	3.97
Total	**13,267**	**13,546**	**12,073**	**12,371**

7.5 The actual gross generation during FY 2009-10 was higher than the approved gross generation by 279 MU. Similarly the actual net generation was higher by 298 MU. Thus the actual generation is higher by 2% over the approved generation for FY 2009-10. On the other hand, the increase in the actual cost vis-à-vis approved cost was 11%. The Commission observed that the main reason for increase in generation cost is increase in other charges like ED, cess on auxiliary consumption and water charges. These are statutory charges and thus are pass-through expenses. Further there has also been an increase in oil prices by approx. 50% in FY 2009-10. The Commission is of the view that increases in coal/oil prices and statutory charges are uncontrollable parameters and any increase/decrease in them has to be pass-through. Thus the Commission has approved the actual generation cost incurred by CSPGCL during FY 2009-10 based on the provisional accounts. The generation cost as approved by Commission in Tariff Order for FY 2009-10 and the revised estimates proposed by CSPGCL now has been summarized below:

Table 59: Generation cost (Rs Cr) for FY 2009-10

Particulars	Approved in Tariff Order FY 2009-10	Proposed by CSPGCL in True up Petition	Approved
Generation cost	855.46	949.87	938.23

Employee cost

7.6 CSPGCL has submitted that the actual employee cost for FY 2009-10, as per the provisional annual accounts, was Rs.361.57 Cr which comprised of Rs.252.73 Cr on account of salaries and wages and Rs.108.84 Cr on account of CSPGCL's annual contribution to the Pension & Gratuity Fund. Further, Rs.15.88 Cr related to internal coal transportation cost pertaining to Korba West and Korba East TPS was incorrectly included in employee cost in the provisional accounts and the same has been reduced now. Thus the adjusted employee cost for FY 2009-10 as submitted by CSPGCL works out to be Rs.345.69 Cr.

Commission's View

7.7 The Commission noted that the actual employee cost, as per the provisional accounts for FY 2009-10, was Rs.366.25 Cr instead of Rs.361.57 Cr as submitted by CSPGCL. The actual salaries and wages paid in FY 2009-10, as per the provisional annual accounts was Rs.257.41 Cr which has been approved by the Commission. With regards to the payments on account of terminal benefits, during the TVS, the companies have submitted that for FY 2009-10 a payment of Rs.290 Cr was made to the pension fund and Rs.126 Cr was paid to employees as pension and gratuity to employees of the erstwhile CSEB.

7.8 The Commission in its previous tariff order had allowed a lump sum contribution of Rs.300 Cr to the Pension Fund for CSPGCL, CSPDCL and CSPTCL taken together. The Commission had also clarified that as the contribution towards pension fund is allowed in ARR, the companies should meet the annual outgo of terminal benefits out of contribution made to the fund and interest earned from the deposits made in the fund and had not considered the annual outgo during FY 2009-10 separately.

7.9 Following the principle as stated in the previous tariff order, the Commission has approved actual contribution made to the pension fund of Rs.290 Cr for FY 2009-10 as part of the employee expenses for the three companies but has disallowed the actual annual outgo of Rs.126 Cr as submitted by the petitioners. The total contribution of Rs.290 Cr has been divided amongst the three companies in proportion of the actual number of employees of three companies in FY 2009-10. Accordingly, the Commission has approved Rs.77.30 Cr as share of CSPGCL in the total contribution to the pension fund.

7.10 Further the Commission has not considered any adjustment on account of internal transfers, such as coal transportation cost included in employee cost of Rs.15.88 Cr, as the accounts have not being finalized and any adjustment would be done on the basis of audited accounts only and in accordance with the Auditor's notes.

7.11 The proposed and approved employee cost for FY 2009-10 has been summarized below.

Table 60: Employee cost (Rs Cr) for FY 2009-10

Sl. No.	Particulars	Approved in Tariff Order FY 2009-10	Proposed by CSPGCL in True up Petition	Approved
1.	Salaries & wages (excl. terminal benefits)	189.55	236.85	257.41
2.	Terminal benefits (contribution to Gratuity & Pension Fund)	77.55	108.84	77.30
3.	**Total Employee Cost (1+2)**	**267.10**	**345.69**	**334.71**

Administration & General (A&G) cost

7.12 CSPGCL has submitted the actual A&G cost as per the provisional annual accounts for FY 2009-10 was Rs.65 Cr. However this includes Rs.26 Cr towards water charges forming part of coal cost and hence should not be included in A&G cost. Further, cost towards coal transport for Korba West and Korba East TPS of Rs.0.23 Cr and expenses capitalized amounting to Rs.1.31 Cr during 2009-10 also have to be reduced from the A&G cost. Thus the adjusted A&G cost for FY 2009-10 as submitted by CSPGCL is Rs.37.49 Cr as against Rs.26 Cr as approved by Commission in previous tariff order.

Commission's View

7.13 The Commission has noted that the A&G expenses of all the three companies taken together have increased significantly during FY 2009-10. The total A&G expenditure of CSPGCL, CSPTCL and CSPDCL has been projected to be Rs.145 Cr during FY 2009-10. While in its previous tariff order, the Commission had approved A&G expenses of only Rs.78 Cr for the three successor companies and considers the A&G expenses submitted by the companies as excessively high and unreasonable.

7.14 During TVS, the companies submitted that the increase in A&G cost is mainly on account of inter-company allocation of expenditure of common services department i.e. CSPHCL as per the revised CSEB Transfer Scheme. Out of the total A&G expenditure of Rs.145 Cr, Rs.38 Cr is the employee expenses of CSPHCL that have been allocated to the three successor companies and Rs.106 Cr is the actual A&G expenditure of the successor companies.

7.15 The Commission has observed that the increase in A&G expenses has been not only on account of allocation of CSPHCL expenses as argued by the companies and no suitable explanation has been given for the net A&G expenditure of Rs.106 Cr.

7.16 Thus the Commission has approved an overall increase of 10% over the net A&G

expenses approved for FY 2008-09 i.e. Rs.94.73 Cr for all three companies for FY 2009-10. These have been allocated to each company in the ratio of the overall A&G expenses submitted by the three companies. Accordingly, the Commission has allowed net A&G expenses of Rs.29.11 Cr for CSPGCL for FY 2009-10. The Commission has also allowed the share of employee expenses of the CSPHCL allocated to the companies – Rs.38 Cr, as it does not wish to penalize the employees of the holding company. Accordingly, it has also allowed Rs.6.42 Cr of allocated expenses of CSPHCL as a part of the A&G expenses of CSPGCL. Thus, the Commission has approved total A&G expenses of Rs.35.53 Cr for CSPGCL for FY 2009-10.

7.17 The A&G cost as proposed by petitioner and as approved by Commission has been summarized below:

Table 61: A&G cost (Rs Cr) for FY 2009-10

		Submitted as part of the Additional Information			Approved		
	Approved in TO 2009-10	A&G Expenses	CSPHCL Expenses	Total A&G Expenses	A&G Expenses	CSPHCL Expenses	Total A&G Expenses
CSPGCL	26	32.60	6.42	39.02	29.11	6.42	35.53
CSPTCL	22	14.54	5.28	19.82	12.98	5.28	18.26
CSPDCL	30	58.94	26.75	85.69	52.63	26.75	79.38
Total	**78**	**106.08**	**38.45**	**144.53**	**94.73**	**38.45**	**133.18**

Repair and Maintenance (R&M) cost

7.18 CSPGCL has submitted the actual R&M cost as per the provisional annual accounts for FY 2009-10 was Rs.149 Cr. However this does not include cost of Rs.12.58 Cr and Rs.9.50 Cr towards conveyor & crusher charges and cost of lubricants, consumables & station supplies. These expenses form part of R&M cost and hence have been added back. Further, cost towards coal transport for Korba West and Korba East TPS of Rs.17.60 Cr and expenses capitalized amounting to Rs.1.28 Cr during 2009-10 also have to be reduced from the total R&M cost. Thus the adjusted R&M cost for FY 2009-10 as submitted by CSPGCL is Rs.151.69 Cr as against Rs.135.92 Cr as approved by Commission in previous tariff order.

Commission's View

7.19 The Commission has approved Rs.148.51 Cr as the R&M cost for FY 2009-10 as per the provisional annual accounts, which implies an increase of 9% over the approved cost of Rs.136 Cr. Any change in cost would be adjusted during the final true up based on audited accounts. The R&M cost as proposed by CSPGCL and as approved by Commission has been summarized below:

Table 62: R&M cost (Rs Cr) for FY 2009-10

Particulars	Approved in Tariff Order FY 2009-10	Proposed by CSPGCL in True up Petition	Approved
R&M cost	135.92	151.69	148.51

Depreciation

7.20 CSPGCL has estimated depreciation on the opening GFA on the basis of SLM methodology as per the rates specified in the CSERC Tariff Regulations 2006. The revised depreciation cost for FY 2009-10 was Rs.128.75 Cr as against Rs.106 Cr approved in previous tariff order.

Commission's View

7.21 The Commission observed that CSPGCL has estimated depreciation on opening GFA only and not on the additions during the year. However as per the methodology adopted by Commission in previous tariff order, it has also allowed depreciation on additions during the year. Thus the Commission has approved the depreciation as calculated by CSPGCL on opening GFA and also on additions in GFA during the year on prorata basis. The depreciation cost as proposed by CSPGCL and as approved by Commission has been summarized below:

Table 63: Depreciation (Rs Cr) for FY 2009-10

Particulars	Approved in Tariff Order FY 2009-10	Proposed by CSPGCL in True up Petition	Approved
Depreciation	106.02	128.75	129.17

Interest & finance charges

7.22 CSPGCL has submitted interest and finance charges (excluding interest on working capital) for FY 2009-10 was Rs.184.34 Cr as against Rs.241.47 Cr approved by Commission in previous tariff order.

Commission's View

7.23 The Commission has approved the interest & finance charges for FY 2009-10 as proposed by CSPGCL as summarized below:

Table 64: Interest & finance charges (Rs Cr) for FY 2009-10

Particulars	Approved in TO 09-10	Proposed by CSPGCL	Approved
Interest & finance charges	241.47	184.34	184.34

Interest on working capital

7.24 CSPGCL has computed interest on working capital on normative basis. CSPGCL has further cited the judgment made by Hon'ble Appellate Tribunal for Electricity (ATE) in the Appeal No. 137, 138 and 139 of 2008 (Tata Power Company v/s MERC), wherein interest on working capital was allowed as a separate component entitled to be recovered as part of tariff. It rejected the MERC contention that because no outflow of funds took place by way of interest on working capital hence it can be presumed that entire amount was a gain to the utility. The Tribunal observed:

".... the licensee can never have funds which has no cost. The internal accruals are not like some reserve which does not carry any cost...." .

7.25 Accordingly, CSPGCL has claimed interest on normative working capital during FY 2009-10 as summarized below:

Table 65: Computation of Interest on working capital (Rs Cr) for FY 2009-10 submitted by CSPGCL

Particulars	Norms for WC requirement	Amount
Cost of coal	$1^{1}/_{2}$ months	106.21
Cost of secondary fuel	2 months	6.74
Operation and maintenance expenses	1 month	35.50
Maintenance spares	20% of O&M	85.21
Receivables	2 months	320.75
Total working capital requirement		**554.41**
Rate of interest @ SBI PLR for the Year		12.25%
Interest on working capital		**67.91**

Commission's View

7.26 The Commission has considered the Judgment by the Hon'ble ATE in Appeal No. 137, 138 and 139 of 2008 in Tata Power Company v/s MERC while preparing the CSERC MYT Regulations 2010. In the regulations, the Commission has allowed interest on working capital as a separate component to be pass through in ARR. However these regulations are applicable from FY 2010-11 only. Thus in case of FY 2009-10, the Commission is guided by CSERC's Tariff Regulations 2006 and precedence made in previous tariff orders. The actual interest on borrowing for working capital during FY 2009-10 was Rs.2.5 Cr only. Further in its previous order Commission has not allowed interest on working capital as a separate component. Thus for FY 2009-10, the Commission does not allow interest on working capital as a pass through expense. The proposed and approved interest on working capital for FY 2009-10 has been summarized below:

Table 66: Interest on WC (Rs Cr) for FY 2009-10

Particulars	Proposed by CSPGCL	Approved
Interest on WC	67.91	0

Interest & other expenses capitalized

7.27 CSPGCL has not provided expenses capitalised as a separate component of ARR.

Commission's View

7.28 The Commission has approved the expenses capitalized during FY 2009-10 separately as per the provisional accounts. The expenses capitalized during the year as approved by Commission has been summarized below:

Table 67: Expenses capitalised (Rs Cr) during FY 2009-10 as approved by Commission

Particulars	Amount
Interest & other expenses capitalised	40.82

Return on equity (RoE)

7.29 CSPGCL has estimated RoE on the average of opening and closing equity @ 14% as per CSERC Tariff Regulations 2006. The opening equity as on April 1, 2009 was Rs.1193.68 Cr. There was no change in the equity during FY 2009-10. Thus the RoE proposed by CSPGCL for FY 2009-10 was Rs.167 Cr.

Commission's View

7.30 The Commission has approved the methodology adopted by CSPGCL for estimating RoE and thus approves Rs.167 Cr as RoE during FY 2009-10. The computation of RoE for FY 2009-10, as proposed by CSPGCL & approved by Commission, has been summarized below.

Table 68: RoE (Rs Cr) for FY 2009-10 as proposed by CSPGCL & approved by Commission

Particulars	Amount
Opening GFA	
GFA at the start of the FY 2009-10	3,610.59
Loan Capital Employed	2,416.91
Equity Employed	1,193.68
a. Normative Equity	*1,188.78*
b. Equity over & above Normative equity	*4.90*
Closing GFA	
GFA at the end of the FY 2009-10	**3,671.14**
Loan Capital Employed	2,477.46
Equity Employed	1,193.68
a. Normative Equity	*1,206.94*
b. Equity over & above Normative equity	-
Average GFA	**3,640.87**
Loan Capital Employed	2,447.19
Equity Employed	1,193.68
a. Normative Equity	*1,193.68*
b. Equity over & above Normative equity	-
ROE for FY 2009-10 on average Equity	
Reasonable rate of RoE	14.00%
ROE on normative equity allowed	167.12
Weighted Average rate of interest for FY 2009-10	8.72%
Return on Equity over & above normative equity	-
Total ROE for FY 2009-10	**167.12**

Non Tariff Income (NTI)

7.31 CSPGCL has submitted non tariff income for FY 2009-10 was Rs.27.37 Cr as per the provisional annual accounts for the year as against the approved NTI of Rs.46 Cr in previous tariff order. According to CSPGCL, the NTI had been lower than the targeted due to lower income from sale of scrap and investment. The income from sale of scrap was lower as after refurbishment of Korba east power house most of the scrap has already been sold and as such the same income stream from sale of scrap is not feasible. Further lower interest income resulted from lower investments in bank instruments as funds got locked in financing working capital and Capex.

Commission's View

7.32 The Commission has approved the non tariff income as submitted by CSPGCL. Any change in non tariff income would be adjusted at the time of final true up based on audited accounts. The NTI as proposed by CSPGCL and approved by Commission has been summarized below:

Table 69: Non tariff income (Rs Cr) for FY 2009-10 as proposed by CSPGCL & approved by Commission

Particulars	Amount
Non tariff income as per provisional accounts for FY 2009-10	27.37

Generation incentive

7.33 As per Regulation 23 of CERC Regulations 2004 read with regulation 5 (1) of CSERC Tariff Regulations 2006, CSPGCL is entitled for incentive at a flat rate of 25 paise/kWh for actual ex-bus energy in excess of target ex-bus energy. The comparative of the sent out energy is as given below:

Table 70: Ex-bus energy approved v/s actual sent out energy (MU)

Particulars	As per TO 09-10	Actual as per true up petition	Difference claimed
Sent out energy (ex-bus)	12073	12371	298

7.34 Accordingly, CSPGCL has claimed generation incentive on the excess generation of 298 MU @ 25 paise/kWh amounting to Rs.7.45 Cr. CSPGCL has submitted that the Commission should appreciate its above par performance and incentive claim of Rs.7.45 Cr for FY 2009-10 should be allowed.

Commission's View

7.35 The Commission has appreciated the efforts made by CSPGCL to achieve higher generation. However it is of the view that during FY 2009-10, CSPGCL has recovered the cost at average tariff and not in two part tariff. Thus the component of incentive pertaining to fixed cost has been already allowed to CSPGCL. Thus the Commission has not approved generation incentive separately for FY 2009-10. The proposed and approved generation incentive for FY 2009-10 has been summarized below:

Table 71: Generation incentive (Rs Cr) for FY 2009-10

Particulars	Proposed by CSPGCL	Approved
Generation incentive	7.45	0

Income Tax

7.36 CSPGCL has not claimed any income tax liability for FY 2009-10.

Commission's View

7.37 The Commission in its previous tariff order had approved Rs.3.91 Cr as provision for income tax for FY 2009-10. However as CSPGCL has not claimed any liability towards income tax, the Commission has not approved any amount towards actual income tax paid for FY 2009-10.

Revenue from sale of power

7.38 CSPGCL has submitted that actual revenue from sale of power for FY 2009-10 was Rs.1780 Cr which was higher than the targeted revenue of Rs.1744 Cr.

Commission's View

7.39 The Commission has approved revenue from sale of power as per the provisional annual accounts for FY 2009-10, which is Rs.1747 Cr only as against Rs.1780 Cr claimed by CSPGCL. The revenue from sale of power as proposed by CSPGCL and as approved by Commission has been summarized below:

Table 72: Revenue from sale of power (Rs Cr) for FY 2009-10

Particulars	Approved in TO 2009-10	Petition	Approved
Revenue from sale of power	1744	1780	1747

Annual Revenue Requirement (ARR)

7.40 The annual revenue requirement (ARR) as proposed by petitioner and as approved by the Commission for FY 2009-10 has been summarized below.

Table 73: Annual Revenue Requirement (Rs Cr) for FY 2009-10

Particulars	Approved in TO 2009-10	Proposed by CSPGCL	Approved
Generation cost	855	950	938
Employee expenses	267	346	335
R&M expenses	136	152	149
A&G expenses	26	37	36
Depreciation	106	129	129
Interest & finance charges	368	184	184
Interest on working capital	0	68	0
Less: Interest & other expenses capitalized	(-)141	0	(-)41
Generation incentive	0	7	0
Income tax	4	0	0
Total expenses	**1621**	**1873**	**1730**
Add: Reasonable return	169	167	167
Less: Non-tariff income	46	27	27
Annual Revenue Requirement (ARR)	**1744**	**2013**	**1869**

Revenue Surplus/Deficit

7.41 Based on above true up analysis, the revenue surplus/deficit as proposed by CSPGCL and approved by the Commission for FY 2009-10 has been summarized below.

Table 74: Revenue Surplus/ deficit (Rs Cr) for FY 2009-10

Particulars	Petition	Approved
Annual Revenue Requirement	2013	1869
Revenue from Sale of Power	1780	1747
Revenue Surplus/(Deficit)	**-233**	**-123**

7.42 The approved revenue deficit of Rs.123 Cr for FY 2009-10 for CSPGCL would be carried forward while estimating the ARR and tariff for future years.

8 PROVISIONAL TRUING UP FOR CSPTCL FY 2009-10

8.1 This section contains a summary of the True Up Petition for the period FY 2009-10 as submitted by Chhattisgarh State Power Transmission Company (CSPTCL) and the analysis/ observation/ of the Commission thereof. The true-up exercise has been carried based on combined accounts of CSPTCL and SLDC for the period FY 2009-10.

Transmission Loss

8.2 CSPTCL has submitted intra-state transmission loss of 4.65% for FY 2009-10 against the approved intra-state transmission loss of 4.90%.

Commission's View

8.3 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 lower EHV sales at 1901 MU as compared with CSPTCL which reported EHV sales at 1928 MU in its petition. CSPTCL has also considered net energy input from CSPGCL at the 132kV level as 12344 MU against the energy input of 12335 MU at 132 kV level submitted by CSPGCL in its petition.

8.4 The Commission has considered the EHV sales at 1901 MU, as reported by CSPDCL, for calculation of intra-state transmission loss as the 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 4.77% for FY 2009-10, which is higher than the loss level reported by CSPTCL but is, however, still lower than the level of intra-state transmission loss approved by the Commission in its previous tariff order for FY 2009-10.

Table 75: Submitted and Approved Transmission Loss for FY 2009-10 (MU)

	Submitted	Approved
TOTAL ENERGY INJECTED INTO THE TRANSMISSION SYSTEM	**16444**	**16435**
ENERGY OUTPUT FROM THE TRANSMISSION SYSTEM		
Consumption(Sales) at EHV levels by consumers on 132 KV and above	1928	1901
Energy delivered to DISCOM on 33 KV side of power transformer	13751	13751
Net Energy delivered	**15680**	**15652**
Energy Loss	765	783
Transmission Loss (%)	**4.65%**	**4.77%**

O&M Expenses

8.5 O&M expenses comprise of the employee expenses, repairs and maintenance expenses and administrative and general expenses.

Employee expenses

8.6 The petitioner has submitted the actual employee cost as per the provisional annual accounts for FY 2009-10, which was Rs. 114.66 Cr. This included salaries, dearness allowance, bonus and other allowances, medical expenses, contribution to pension and gratuity fund, terminal benefits, staff welfare expenses among others.

8.7 In FY 2009-10 tariff order, the Commission had approved Rs. 73.6 Cr of employee expenses.

Commission's View

8.8 Upon seeking clarification on the reasons for steep hike in employee expenses in actual vs. the approved amount as per tariff order, the petitioner submitted that the same was due to increase in dearness allowance and contribution to pension and gratuity fund. The increase in expenses towards Dearness allowance is due to half yearly D.A rate declared by the Central Government which is higher in FY 2009-10 as compared to usual.

8.9 The Commission has accepted the increase due to DA hike, and allowed all components of employee expenses as per provisional accounts except:

8.10 Contribution to Gratuity and Pension Fund: The successor entities of CSEB made payment of Rs. 290 Cr to corpus of pension and gratuity fund during FY 2009-10. They also made actual payment to employees of Rs. 126 Cr towards pension and gratuity benefits. CSPTCL has total of 1,725 employees vs. total 16,810 employees of CSEB successor entities. Thus, the Commission has approved share of CSPTCL in payment of Rs. 290 Cr to corpus, in the ratio of number of employees and allowed Rs. 29.76 Cr as contribution to gratuity and pension fund. The Commission has disallowed actual payment to employees of Rs. 126 Cr as only payment made to the corpus need to be considered as part of employee expenses.

8.11 Employee expenses allowed in the true-up are more than the approved employee expenses in tariff order due to DA hike and payment towards gratuity.

8.12 CSPTCL had clarified during the TVS that the credit under employee costs of Rs. 16.44 Cr is due to allocation of expenses of combined services to other companies. During transition period, Civil department was working under transmission company, and therefore, employee cost of Civil department have been allocated to the other companies by crediting to the employee costs and transferred it to inter-company adjustment accounts.

Table 76: Summary of employee expenses (Rs Cr) for FY 2009-10

Sl. No.	Particulars	Approved in Tariff Order 2009-10	Petition	Approved
1	Basic pay	16.44	24.99	24.99
2	Additional pay	8.22	15.06	15.06
3	Dearness allowances	16.73	26.21	26.21
4	Other allowances	3.82	5.79	5.79
5	Other allowances and benefits/staff welfare expenses	2.37	2.02	2.01
6	Provision for wage revision	-	12.37	12.37
7	Contribution to gratuity and pension fund	26.07	44.66	29.76

Sl. No.	Particulars	Approved in Tariff Order 2009-10	Petition	Approved
8	Other credits to employee cost	-	(16.44)	(16.44)
	Total	**73.65**	**114.66**	**99.76**

Repairs and maintenance expenses

8.13 The petitioner has submitted the actual repairs and maintenance expenses as per the provisional annual accounts for FY 2009-10, which was Rs. 27.28 Cr. This included repairs and maintenance expenses for plant and machinery, buildings and civil works, lines, cable network, vehicles and miscellaneous fixed assets.

8.14 In the tariff order of FY 2009-10, the Commission has approved a much higher amount of Rs. 40.69 Cr as repairs and maintenance expenses.

Commission's View

8.15 The Commission has allowed the actual repairs and maintenance expenses incurred by CSPTCL for FY 2009-10 as per the provisional accounts during true-up as they are within the expenditure level approved by the Commission in its previous tariff orders.

Table 77: Repairs and maintenance expenses (Rs Cr) for FY 2009-10

Particulars	Approved in Tariff Order 2009-10	Petition	Approved
Repair & Maintenance expenses	42.61	27.28	27.28

Administrative and general expenses

8.16 The Petitioner has submitted the actual administrative and general expenses as per the provisional annual accounts for FY 2009-10, which was Rs. 19.82 Cr. The Commission had approved Rs. 22.21 Cr for administrative and general expenses in its previous tariff order for FY 2009-10.

Commission's View

8.17 The Commission has approved total A&G expenses of only Rs 94.73 Cr for all three companies which is an increase of 10% over the net A&G expenses approved for FY 2008-09. These have been allocated to each company in the ratio of the net A&G expenses submitted by the three companies. Accordingly, the Commission has allowed net A&G expenses of Rs 12.98 Cr for CSPTCL for FY 2009-10.

8.18 The Commission has also allowed the employee expenses of the CSPHCL allocated to the companies – Rs 38.45 Cr, as it does not wish to penalize the employees of the holding company. Accordingly, it has also allowed Rs 5.28 Cr of allocated expenses of CSPHCL as a part of the A&G expenses to CSPTCL.

8.19 Thus, the Commission has approved total A&G expenses of Rs 18.26 Cr for CSPTCL for FY 2009-10. This has been summarized in Table 79.

Table 78: A&G expenses (Rs Cr) during FY 2009-10

		Submitted as a part of the Additional Information			Approved		
	Approved in TO 2009-10	Net A&G Expenses	CSPHCL Expenses	A&G Expenses	A&G Expenses	CSPHCL Expenses	A&G Expenses
CSPGCL	26	32.60	6.42	39.02	29.11	6.42	35.53
CSPTCL	22	14.54	5.28	19.82	12.98	5.28	18.26
CSPDCL	30	58.94	26.75	85.69	52.63	26.75	79.38
Total	**78**	**106.08**	**38.45**	**144.53**	**94.73**	**38.45**	**133.18**

Depreciation

8.20 The Petitioner had submitted Rs. 51.81 Cr as depreciation in FY 2009-10 using SLM method.

8.21 However, the Commission had allowed only Rs. 40.30 Cr in its previous tariff order towards depreciation.

Commission's View

8.22 The Commission has examined the computations of depreciation submitted by CSPTCL and found that CSPTCL has taken revised rates of depreciation in its calculation mentioned in CSERC MYT Regulations 2010, which are applicable for the control period of FY 2010-11 to FY 2012-13. However, for FY 2009-10, the rates mentioned in CSERC Tariff Regulations, 2006 need to be considered. Hence, the Commission has re-computed depreciation for FY 2009-10 basis depreciation rates mentioned in the CSERC Tariff Regulation, 2006 and have allowed Rs. 40.5 Cr as depreciation. The detailed computation is given in Table 79.

Table 79: Calculation of Depreciation (Rs Cr) during FY 2009-10

Assets	Opening balance	Closing balance	Average assets	Depreciation rate (%)	Depreciation amount
Land and land rights	9.2	9.2	9.2	0%	0
Building and civil works					
- Buildings containing transmission installations	26.9	27.7	27.3	1.80%	0.5
- Others	1.1	0.4	0.8	1.80%	0.0
Plant and machinery					
- Power transformers	542.5	637.3	589.9	3.60%	21.2
- Other plant and machinery	0.4	0.4	0.4	3.60%	0.0
Transmission Lines	466.0	537.3	501.7	3.60%	18.1
Self-propelled vehicles	1.1	1.11	1.1	18.00%	0.2
IT equipments	0	0	0	6.00%	0.0
Furniture and fixtures	2.2	2.2	2.2	6.00%	0.1
Office Equipments	5.8	6.0	5.9	6.00%	0.4
Others	0.0	0.0	0.0	6.00%	0.0
TOTAL	**1055.3**	**1221.6**	**1138.4**		**40.5**

Interest and finance charges

8.23 The Petitioner has submitted Rs. 33.75 Cr as interest and finance charges in FY 2009-10 in its petition against Rs. 82.89 Cr approved by the Commission in its previous tariff order. This includes interest on state govt. Loans, bonds, debentures, PFC loan etc.

Commission's View

8.24 The Commission has allowed the expense submitted by the petitioner as per provisional accounts.

Table 80: Interest and finance charges (Rs Cr) for FY 2009-10

Particulars	Approved in Tariff Order 2009-10	Petition	Approved
Interest and finance charges	82.89	33.75	33.75

Interest and other expenses capitalized

8.25 The O&M expenses incurred towards addition of capital assets has to be capitalized and added to the asset value, and charged off through depreciation over the life of the asset. Similarly, the interest expenditure during the construction (IDC) has to be capitalised and added to the asset value.

8.26 The Petitioner has submitted Rs. 11.11 Cr as expenses capitalized as against Rs. 37.67 Cr considered in the previous tariff order. This is primarily on account of capitalization of O&M expenses of Rs. 11.11 Cr.

Commission's View

8.27 The Commission has considered the interest and other expenses capitalized by the Petitioner and allowed Rs. 11.11 Cr towards the same.

Return on Equity

8.28 The Petitioner has submitted Rs. 52.95 Cr as return on equity for FY 2009-10 as against Rs. 42.01 which were approved in the previous tariff order by the Commission. The Petitioner has followed the following approach:

(a) 30% of the opening GFA (as on March 31st, 2009) has been taken as the opening equity base

(b) 30% of additional capitalization during FY 2009-10 has been taken as additions to equity base during the year. To arrive at total equity base for FY 2009-10, average of additional equity base was considered

(c) The Petitioner has calculated ROE at the rate of Rs. 15.5% as per CERC Regulations. As CSPTCL has not paid any tax for FY 2009-10, applicable tax rate has been taken as 0%, and, hence ROE rate was not grossed up to calculate return.

Table 81: Return on Equity (Rs Cr) for FY 2009-10 as submitted by CSPTCL

Particulars	Amount
Opening GFA (as on March 31, 2009)	1055.25
Capitalization during the year 2009-10	167.09
Closing GFA (as on March 31, 2010)	1222.34
Opening normative equity (30% of GFA)	316.58
Closing normative equity (30% of GFA)	366.70
Average equity during the period 2009-10	341.64
Reasonable Return (@ 15.5%)	**52.95**

Commission's View

8.29 The Commission has accepted the methodology adopted by the Petitioner in calculating opening and closing balance of assets and equity. However, the rate of return to be used is 14% as per CSERC Tariff Regulations 2006, which are applicable for FY 2009-10 and not 15.5%. Hence, the Commission has allowed Rs. 47.83 Cr as return on equity at 14% rate of return.

Other debits (including provision for bad debts)

8.30 The Petitioner has submitted Rs. 0.7 Cr as other debits (including provision for bad debts) as part of its expenses.

Commission's View

8.31 Since including other debits is leading to reduction in ARR of CSPTCL by Rs. 0.7 Cr, the Commission has accepted this and allowed this item.

Income tax paid

8.32 As the Petitioner has not paid any tax for FY 2009-10 due to claiming higher depreciation as per Written down Value method under Income Tax Act. However, the Commission had approved Rs. 1.88 Cr of expenditure as part of income tax in its previous tariff order.

Commission's View

8.33 Since CSPTCL has not paid any tax during FY 2009-10, the Commission has considered zero tax for it during FY 2009-10.

Non-tariff income

8.34 The Petitioner had submitted Rs. 10.77 Cr as non-tariff income for FY 2009-10. This was after excluding non-tariff income related to SLDC. After including SLDC, the non-tariff income as per provisional accounts is Rs. 10.86 Cr. In the previous tariff order, the Commission had approved Petitioner's submission of Rs. 19.10 Cr as non-tariff income.

Commission's Views

8.35 The Commission has considered the non-tariff income as given in the provisional accounts for true-up of FY 2009-10.

Annual Revenue Requirement (ARR)

8.36 The annual revenue requirement (ARR) as proposed by CSPTCL and as approved by the Commission for FY 2009-10 has been summarized in Table 82.

Table 82: Annual Revenue Requirement (Rs Cr)

Sl. No.	Particulars	Approved in Tariff Order 2009-10	Petition	Approved
1	O&M expenses	138.48	161.76	145.31
1 (a)	- Employee expenses	73.6	114.66	99.76
1 (b)	- R&M expenses	42.61	27.28	27.28
1 (c)	- A&G expenses	22.21	19.82	18.26
2	Depreciation	40.3	51.81	40.5
3 (a)	Interest & finance charges	82.89	33.75	33.75
3 (b)	Less: interest and other expenses capitalized	(37.67)	(11.11)	(11.11)
4	Other debits (incl. Provision for bad debts)	0	(0.7)	(0.7)
5	Misc- net prior period credit	0	0	0
6	Income tax actually paid	1.88	0	0
	Total expenses	225.88	235.51	207.75
7	Add: Reasonable return	42.26	52.95	47.83
8	Less: Other non-tariff income	21.79	10.77	10.86
9	Less: Sale of power outside state	0	0	0
	Annual Revenue Requirement	**246.35**	**277.69**	**244.71**
	Revenue	246.35	262.95	262.95
	Total Surplus/(deficit)	**0.06**	**(14.74)**	**18.24**

8.37 The approved revenue surplus of Rs.18.24 Cr for FY 2009-10 for CSPTCL would be carried forward while estimating the ARR and tariff for future years.

9 PROVISIONAL TRUING UP FOR CSPDCL FOR FY 2009-10

9.1 This section contains a summary of the True Up Petition for the period FY 2009-10 as submitted by Chhattisgarh State Power Distribution Company (CSPDCL) and the analysis/ observation/ of the Commission thereof.

Energy Sales

9.2 CSPDCL has submitted category wise sales for FY 2009-10 as shown in Table 83.

9.3 CSPDCL has submitted that it has completed 100% metering of all its un-metered agricultural and BPL consumers in FY 2009-10. The meter consumption of the BPL and Agricultural consumers is now incorporated in R-15 formats therefore the sales have not been restated as it was done in earlier years and should be accepted as such.

Commission's View

9.4 CSPDCL has informed the Commission that it has achieved 100% metering of its agriculture and BPL consumers. 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 as has been done in the previous orders and has accepted the sales as submitted by CSPDCL for this provisional true up.

9.5 Metering of sales has resulted in increase in recorded BPL and agriculture sales from 310 MU (restated) and 1146 MU (restated) in FY 2008-09 to 729 MU and 1690 MU in 2009-10 respectively.

9.6 Sales to the EHV category have been lower than approved by the Commission in its previous order as BSP commissioned its own captive power plant during the year which reduced its power consumption.

Table 83: Category wise energy sales for FY 2009-10 (MU)

Consumer Categories		Submitted	Approved
	LT Consumers		
LV-1.1	BPL Consumers	729	729
LV-1.2	Other Domestic	1841	1841
LV-2	Non Domestic	436	436
LV-3.1	Agriculture Metered	545	545
LV-3.2	Agriculture Flat Rate	1145	1145
LV-4	Agriculture Allied Services	9	9
LV-5	LT Industrial	416	416
LV-6	Public Utilities (PWW and SL)	144	144
LV-7	Temporary	109	109
	Sub Total – LT	**5375**	**5375**
EHV-1	Railway Traction	697	697
EHV-2	Heavy Industries	696	696
EHV-3	Steel Industries	184	184
EHV-4	Coal Mine, Cement & Other EHV Indust.	324	324
	Total EHV	**1901**	**1901**
HV-1	Steel Industries	2708	2708
HV-2	Coal Mines & Cement Ind.	247	247

Consumer Categories		Submitted	Approved
HV-3.1	Other HT Ind 33 kV	399	399
HV-3.2	Other HT Ind 11 kV	21	21
HV-4.1	Low Load Factor Industries 33 kV	79	79
HV-4.2	Low Load Factor Industries 11 kV	1	1
HV-5.1	Residential Purpose 33 kV	222	222
HV-5.2	Residential Purpose 11 kV	4	4
HV-6.1	General Purpose Non Industrial 33 kV	214	214
HV-6.2	General Purpose Non Industrial 11 kV	67	67
HV-7.1	Public Water works & Irrigation 33 kV	26	26
HV-7.2	Public Water works & Irrigation 11 kV	15	15
HV-8.1	Start Power 132 kV	8	8
HV-8.2	Start Power 33 kV	10	10
HV-8.3	Start Power 11 kV	5	5
HV 9.1	Agricultural Allied Services 33 kV	4.28	4.28
HV 9.2	Agricultural Allied Services 11 kV	0.44	0.44
	Temporary Supply 33 kV	9	9
	Temporary Supply 11 kV	5	5
	Total HV	**4044**	**4044**
	Grand Total	**11320**	**11320**

Distribution Loss

9.7 CSPDCL submitted distribution loss at 39.28% for FY 2009-10 based on the total energy input and output in the state against distribution loss of 34.32% approved in the previous tariff order.

9.8 On scrutiny by the Commission it was noticed that an error had been made by CSPDCL in computing the distribution loss. While the utility had also considered the power made available by NSPCL to Daman and Diu and Dadra and Nagar Haveli in the energy input to the State account, the same had not been included as a part of the total energy outgo from the State. Since the energy was not being included in the export of energy (where it should have been) and hence was reflecting in the energy loss. CSPDCL accepted the error made by it in calculating the distribution loss and, accordingly, resubmitted the distribution loss data for FY 2009-10 as 35.33% after correcting for the error.

Table 84: Distribution Loss for FY 2009-10 submitted by CSPDCL (MU)

Particulars	Petition	Resubmitted by CSPDCL
Energy input from CSPGCL Station at 132 kV & above	12337	12337
Energy Input from CPP/IPP at 132 kV & above	8254	8254
Energy Input from CGS at Ex-WR	4787	4787
Less Interstate Transmission Losses (@ 5.59%)	268	268
Net Energy Input from CGS at Ex-CG	4520	4520
Energy Input from Others (Traders, SWAPs)	189	189
Less: NSPCL		**-970**
Total Energy Input	**25300**	**24330**
Interstate Sales at Ex-WR	2996	2996
Add Interstate Transmission Loss (@ 5.59%)	177	177

Particulars	Petition	Resubmitted by CSPDCL
Interstate Sales at Ex-CG	3173	3173
Open Access Exchanges at Ex-WR	2435	2435
Add Interstate Transmission Losses (@5.59%)	144	144
Add Intrastate Transmission Loss (@4.65%)	126	126
Net Open Access Exchanges	2705	2705
Net OD/UD	2015	2015
Net Energy Available for CSPDCL	**17408**	**16437**
Intrastate Transmission Losses (@4.65%)	809	784
Net Energy Available after Transmission Loss	**16598**	**15653**
EHV Sales	1901	1901
Energy Input from CSPGCL Station at 33 kV	25	25
Energy Input from CPP/IPP at 33 kV	789	789
Net Energy Input at 33 kV	**15511**	**14566**
Energy Sales to LV (Sales restated for unmetered BPL and	5375	5375
Energy Sales to HV	4044	4044
Total Energy Sales to LV + HV	**9418**	**9419**
Distribution Losses w.r.t 33 kV Distribution input	**39.28%**	**35.33%**

Commission's View

9.9 The Commission has not considered the methodology adopted by CSPDCL in calculation of distribution loss for the year. Following the methodology adopted by it in its previous tariff order, the Commission has considered the HV and LV sales data provided by CSPDCL and the Net Energy Input to Distribution System as provided by CSPTCL and has, accordingly, re-calculated the distribution loss for FY 2009-10 at 35.38% as shown in Table 85.

9.10 The sharp reduction in distribution loss has been primarily as a result of the increase in sales to agriculture and BPL categories. CSPDCL has submitted since it has completed 100% metering of all consumers in these categories the sales to these two categories do not need to be re-stated as had been done in the past and sales should be considered as recorded in R-15 format. Metering of sales has thus resulted in increase in recorded BPL and agriculture sales from 310 MU (restated) and 1146 MU (restated) in FY 2008-09 to 729 MU and 1690 MU in 2009-10 respectively. This sharp increase in sales has led to decrease in recorded distribution loss in FY 2009-10.

9.11 However, in spite of this rather steep reduction in distribution loss (from 41.52% in FY 2008-09 to 35.38% in FY 2009-10); the distribution loss is still higher than that approved by the Commission for FY 2009-10 in its previous tariff order. The Commission, in its previous tariff order, had set CSPDCL a target of reducing distribution losses in FY 2009-10 by 3% over the FY 2008-09 levels and had approved a distribution loss of 34.32%. The Commission has noted with concern that the losses of CSPDCL have not been reduced.

9.12 The Commission is concerned about the inefficiency of CSPDCL is meeting the distribution loss target set for it. The Commission does not wish to burden the consumers with the inefficiencies of CSPDCL and has therefore decided to approve the distribution loss at the level allowed by it in the previous tariff order i.e. 34.32% only. It has also decided to disallow the power purchase cost corresponding to the additional energy procured by CSPDCL due to its inability to meet the distribution loss target set by the Commission in FY 2009-10 in order to reduce the burden on the consumer.

Table 85: Distribution Loss for FY 2009-10 approved by the Commission (MU)

	Re-calculated by the Commission	Approved Distribution Loss
Energy delivered to DISCOM on 33 KV side of power transformer	13751	
Add: Energy Input from CSPGCL Station at 33 kV	36	
Add: Energy Input from CPP/IPP at 33 kV	788	
Energy Input at Distribution Periphery below EHV level (MU)	14575	14341
Energy Sales to LV	5375	5375
Energy Sales to HV	4044	4044
Distribution Loss (MU)	5156	4922
Distribution Loss (%)	**35.38%**	**34.32%**

Power Purchase Cost and Transmission Charges

9.13 CSPDCL purchased 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 has submitted power purchase cost of Rs 3241 Cr for FY 2009-10.

9.14 It has submitted intra-state transmission charges of Rs 246 Cr, payable to CSPTCL, and inter-state transmission charges of Rs 77 Cr, payable to PGCIL. CSPDCL has thus submitted a total power purchase cost and transmission charges of Rs 3564 Cr for FY 2009-10.

9.15 During the technical validation session CSPDCL was asked to submit the details of the power purchased by it from all sources. Accordingly, CSPDCL submitted the quantum and cost of power purchased by it from various sources including CPP/IPPs as shown in Table 86 below.

Table 86: Source-wise Quantum and Cost of Power Purchase for FY 2009-10 submitted during the TVS

Source	Quantum (MU)	Cost (Rs Cr)
NTPC	4495	736
NPC	283	67
OHPCL (Hirakud)	17	2
Total from outside the State	**4795**	**805**
NSPCL	328	109
CSPGCL	12374	1782
CPP/IPPs	3646	1025
Renewable	599	217
Traders/SWAPS		2
Gross Power Purchase	**21741**	**3941**

Segregation of Power Purchase Cost between CSPDCL and CSPTrCL

9.16 CSPDCL has also submitted that the power purchase cost included in the ARR is as per the provisional accounts of the company for the year. The accounting transactions of all the successor companies of CSEB for the FY 2009-10 have been undertaken by CSPHCL as per terms of Government of Chhattisgarh notification no F – 21/13/2009/13/2 dt. 31-03-2010. The segregation of accounts between respective successor companies was also undertaken by CSPHCL. Further, the segregation of accounts between CSPDCL and CSPTrCL has been undertaken as per the Report of the High Power Committee.

9.17 As per the Report of the High Power Committee the total power purchased from all sources has been segregated between CSPDCL and CSPTrCL considering the revised transfer scheme (CSEB Transfer Scheme Rules, 31.3.2010) issued by the Govt. of Chhattisgarh in supersession of the scheme earlier notified vide notification dated 31.12.2008.

9.18 Accordingly, it has been inferred that power from all sources with which the erstwhile CSEB had a long term contract shall be in account of CSPDCL and all short term power purchase shall be in the account of the trading company.

9.19 Thus all power from CSPGCL and firm allocation to the state from the Central Generating Stations should belong to CSPDCL. Also, M/s Jindal Steel and Power Limited (JSPL) power should be in the account of the CSPDCL as erstwhile CSEB had a long term contract with M/s JSPL and that of M/s Jindal Power Limited (JPL) power shall be in the account of the trading company. Rest all of the CPPs and IPPs, which have short term contract (for a period of one year), should be in the account of the trading company. Further, due to the fact that CSPDCL is a member of the UI pool account the entire UI should go to CSPDCL.

9.20 Following the above principle the power purchase cost on account of short term power procured from CPPs/IPPs, which has been sold as bilateral sales or at the power exchanges, has been transferred to CSPTrCL. Only the cost of short term power procured from CPP/IPPs that has been used by CSPDCL for meeting demand of its consumers has been borne by CSPDCL.

9.21 During the process of segregation of accounts, the transmission charges payable to CSPTCL for the use of transmission system have also been shared between CSPDCL and CSPTrCL.

9.22 Table 87 below contains the break-up of the total power purchase cost, including transmission charges, as submitted by CSPDCL as a part of the additional information.

Table 87: Total Power Purchase Cost for FY 2009-10 submitted as a part of additional information

Source	Quantum (MU)	Cost (Rs Cr)
Gross Power Purchase	**21741**	**3941**
Less: Power Transferred to CSPTrCL	2155	642
Power Purchase	**19587**	**3299**
Inter-state Transmission		**77**

Source	Quantum (MU)	Cost (Rs Cr)
Intra-state Transmission Charges		**246**
Less: Transmission Charges allocated to CSPTrCL		58
Total Power Purchase and Transmission Charges		**3564**

Commission's View

9.23 The Commission has verified the quantum of power purchase from the NTPC stations as per the bills raised by NTPC on CSPDCL. The quantum of power purchased by CSPDCL from NSPCL has been considered at 334 MU (against 328 MU submitted by CSPDCL) as per the data provided by the SLDC. The approved net generation of CSPGCL for the year, at12371 MU, has been considered as the quantum of power purchased from CSPGCL instead of 12374 MU as submitted by CSPDCL. The gross quantum of power purchase from CPP/IPPs and biomass has been considered as per the submission of CSPDCL. In total the gross quantum of power purchase considered by the Commission is 21745 MU against 21741 MU as submitted by CSPDCL.

9.24 With regards to the power purchase cost, the Commission at present has considered provisionally the scheme of segregation of power purchase cost, including transmission charges, between CSPDCL and CSPTrCL as per the Report of the High Power Committee. It has also considered the power purchased from biomass generators in the account of CSPDCL. However, the matter is yet to be resolved and will be re-looked into by the Commission during the final true up for FY 2009-10.

9.25 The power purchase cost of CSPDCL has calculated by the Commission as per the source wise power purchase cost submitted by CSPDCL in format R4. The Commission has also considered the power purchase cost from CSPGCL at the rate of 1.44/unit for 12371 MU instead of 12374 MU. The total power purchase cost of CSPDCL calculated in this manner works out to be Rs 3298 Cr or Rs 1.68/unit against Rs 3299 Cr as submitted by CSPDCL. The total transmission charges for the year have been considered as submitted by CSPDCL. Therefore, the total transmission charges and power purchase cost has been considered at Rs 3563 Cr.

UI Income

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.

Disallowance of Power Purchase Cost

9.29 As has been mentioned in 9.12, the Commission does not wish to burden the consumers with the inefficiencies of CSPDCL and has therefore decided to approve the distribution loss at the level allowed by it in the previous tariff order i.e. 34.32% only. It has also decided to disallow the power purchase cost corresponding to the additional energy procured by CSPDCL due to its inability to meet the distribution loss target set by the Commission for FY 2009-10 in order to reduce the burden on the consumer.

9.30 Accordingly, considering an approved average power purchase cost of Rs 1.68/unit, the Commission has disallowed power purchase cost corresponding to 234 MUs i.e. Rs 39.45 Cr.

Table 88: Approved Power Purchase Cost for FY 2009-10

Source	Approved in TO FY 2009-10	Quantum (MU)	Cost (Rs Cr)
Gross Power Purchase		**21745**	**3940**
Less: Power Transferred to CSPTrCL		2155	642
Power Purchase		**19591**	**3298**
Inter-state Transmission			**77**
Intra-state Transmission Charges			**246**
Less: Transmission Charges allocated to CSPTrCL			58
Total Power Purchase and Transmission Charges	**3738**		**3563**
Less: UI Income	729		784.32
Less: Power Purchase Cost Disallowed			39.45
Net Power Purchase Cost	**3009**		**2739.06**

Operation and Maintenance Expenses

Employee Expenses

9.31 CSPDCL has submitted employee expenses at Rs 644.57 Cr. It has submitted that the increase in employee expenses over the level approved by the Commission has primarily been on account of wage revision and terminal benefits.

Commission's View

9.32 CSPDCL has submitted during the TVS that wage revision for all the employees of power companies has been declared in the month of April FY 2009-10 and was applicable w.e.f 01.04.2009 and provision for arrears on account of the same has been made in the accounts. The arrears have been actually paid out to employees during April, May and June 2010. Since the amount set aside for payment for wage revision has already been paid out, the Commission has considered it as part of employee expenses for the year. Though the payment of Rs 54 Cr was made in FY 2010-11 it would be written off against the provision made in accounts of FY 2009-10 and would not be included again in the employee expenses of FY 2010-11. The Commission has thus considered the actual employee expenses of CSPDCL (excluding terminal benefits) as per the provisional accounts for FY 2009-10.

9.33 With regards to the payments on account of terminal benefits the companies have submitted that for FY 2009-10 a payment of Rs 290 Cr was made to the pension fund and Rs 126 Cr was paid as annual outgo of pension and gratuity to employees.

9.34 The Commission in its previous tariff order had allowed a lump sum contribution of Rs 300 Cr to the Pension Fund for CSPGCL, CSPDCL and CSPTCL taken together. The Commission had also clarified that as the contribution towards pension fund is allowed in ARR, the companies should meet the annual outgo of terminal benefits out of contribution made to the fund and interest earned from the deposits made in the fund and had not considered the annual outgo during FY 2009-10 separately.

9.35 Following the principle as stated in the previous tariff order the Commission has approved contribution to the pension fund of Rs 290 Cr for FY 2009-10 as part of the employee expenses for the three companies but has disallowed the actual annual outgo of Rs 126 Cr. The total contribution of Rs 290 Cr has been divided amongst the three companies in proportion of the number of employees of three companies in FY 2009-10. Accordingly, Rs 176.54 Cr has been allowed as payment to the pension fund as a part of the employee expenses of CSPDCL. The total approved employee expenses for FY 2009-10 is contained in Table 89 below.

Table 89: Employee Expenses for FY 2009-10 (Rs Cr)

	Approved in TO 2009-10	Petition	Approved
Basic	122.64	119.10	119.10
Additional Pay	61.32	54.79	54.79
DA	125.09	119.66	119.66
Other Allowances	28.24	39.03	39.03
Other Items	12.64		
Wage Revision Provision	0.00	54.90	54.90
Pension & Gratuity	197.67	257.09	176.54
Total	**547.60**	**644.57**	**564.02**

Administrative and General Expenses

9.36 CSPDCL has submitted A&G expenses of Rs 85.69 Cr for FY 2009-10 against A&G expense of Rs 29.82 Cr approved by the Commission in its previous tariff order.

Commission's View

9.37 During the TVS, CSPDCL was asked to explain the reason for the extremely high A&G expenses. The total A&G expenditure of CSPGCL, CSPTCL and CSPDCL has been submitted as Rs 145 Cr during FY 2009-10. CSPDCL has submitted that the increase in A&G cost is mainly on account of inter-company allocation of expenditure of common services department, the CSPHCL as per the provisions of the transfer scheme. Out of the total A&G expenditure of Rs 145 Cr, Rs 38 Cr is the employee expenses of CSPHCL that have been allocated to the three successor companies and

Rs 106 Cr is the actual A&G expenditure of the successor companies, including CSPHCL.

9.38 The Commission in its previous tariff order had approved A&G expenses of only Rs 78 Cr for the three successor companies and considers the A&G expenses submitted by the companies as excessively high and unreasonable. The increase in A&G expenses has been on account of not only the allocation of CSPHCL as argued by the companies and no suitable explanation has been given for the net A&G expenditure of Rs106 Cr.

9.39 The Commission has approved total A&G expenses of only Rs 94.73 Cr for all three companies for FY 2009-10, which is an increase of 10% over the net A&G expenses approved for FY 2008-09. This total amount has been allocated to each company in the ratio of the overall A&G expenses submitted by the three companies. Accordingly, the Commission has allowed net A&G expenses of Rs 52.63 Cr for CSPDCL for FY 2009-10.

9.40 The Commission has also allowed the employee expenses of the CSPHCL allocated to the companies, i.e. Rs 38 Cr, as it does not wish to penalize the employees of the holding company. Accordingly, it has also allowed Rs 26.75 Cr of allocated expenses of CSPHCL as a part of the A&G expenses of CSPDCL.

9.41 Thus, the Commission has approved total A&G expenses of Rs 79.38 Cr for CSPDCL for FY 2009-10. This has been summarized in the table below.

Table 90: A&G Expenses for FY 2009-10 (Rs Cr)

		Submitted as a part of the Additional Information			Approved		
	Approved in TO 2009-10	A&G Expenses	CSPHCL Expenses	A&G Expenses	A&G Expenses	CSPHCL Expenses	A&G Expenses
CSPGCL	26	32.60	6.42	39.02	29.11	6.42	35.53
CSPTCL	22	14.54	5.28	19.82	12.98	5.28	18.26
CSPDCL	30	58.94	26.75	85.69	52.63	26.75	79.38
Total	**78**	**106.08**	**38.45**	**144.53**	**94.73**	**38.45**	**133.18**

Repair and Maintenance Expenses

9.42 CSPDCL has submitted R&M expenses of Rs 91.67 Cr for FY 2009-10 against Rs 91.91 Cr as approved by the Commission in its previous tariff order.

Commission's View

9.43 The Commission has approved R&M expenses at Rs 91.67 Cr, as submitted by CSPDCL, as they are reasonable and the within the expenditure level approved by the Commission in its previous tariff order.

Interest & Finance Charges

9.44 CSPDCL has submitted interest and finance charges of Rs 72.16 Cr as shown in Table 91 below.

Commission's View

9.45 The Commission has considered the interest paid on existing loans of CSPDCL, the interest on consumer security deposits and other finance charges as per the actual interest cost incurred by CSPDCL during FY 2009-10.

9.46 CSPDCL has also submitted Rs 26.15 Cr as discount to consumers for timely payment as part of the interest and finance charges. During the TVS, however, the company clarified that this discount was not to retail consumers but rather inter-state consumers of CSPDCL. It has submitted:

"In the process of segregation the power purchased from IPP & CPPs which was vested in Govt. of Chhattisgarh were required to be derecognized from the account of CSPDCL. Accordingly, necessary adjustments for transferring the Inter State Sale and discount thereof *were to be carried out by the CSPHCL... As such while transferring the Inter State Sale from the account of CSPDCL corresponding discount, which should have been netted off from the sale was omitted due to oversight. Accordingly, the figure reflected in the discount account amounting to Rs. 26.15 cr will be transferred, taking due cognizance of the query raised by the Hon'ble Regulatory Commission. However, the omission does not render any impact on the profit and loss of the Company."*

9.47 Taking cognizance of the above submission the Commission has disallowed the discount of Rs 26.61 Cr as a part of interest and finance charges and has adjusted the same in the revenue from inter-state sale of power.

9.48 The Commission has also not allowed any interest on working capital as none was allowed in the previous tariff order for FY 2009-10.

9.49 The summary of submitted and approved interest and finance charges has been shown in Table 91 below.

Table 91: Interest and Finance charges for FY 2009-10 (Rs Cr)

	Approved in TO 2009-10	Submitted	Approved
Interest on Existing Loans of CSEB	33.16	15.31	15.31
Interest on New Loans	65.05	0	0
Interest on Working Capital	0	0.60	0
Interest on Security Deposit	25.31	28.61	28.61
Discount to Consumers for timely payment	0	26.15	0
Other Finance Charges	1.17	1.48	1.48
Total	**124.69**	**72.16**	**45.40**

Interest and Other Expenses Capitalised

9.50 CSPDCL has submitted interest and O&M expenses capitalized at Rs 20.92 Cr against Rs 17 Cr approved in tariff order of FY 2009-10.

Commission's View

9.51 The Commission has approved interest and O&M expenses capitalized at Rs 20.92 Cr as per the provisional accounts of CSPDCL for FY 2009-10.

Depreciation

9.52 CSPDCL submitted depreciation expenses of Rs 62.82 Cr for FY 2009-10, calculated considering the opening balance of the gross block, and the assets capitalized during the period FY 2008-09 and FY 2009-10 on pro-rata basis in accordance with CSERC Tariff Regulations, 2010.

Commission's View

9.53 The CSERC Tariff Regulations, 2010 were issued by the Commission in January, 2010 and are applicable during the first MYT control period: FY 2010-11 to FY 2012-13. The ARR of CSPDCL for FY 2009-10 was approved under the provisions in the CSERC Tariff Regulations, 2006 and thus the provisional true up of the year will be carried out under the provisions of the same regulations.

9.54 Accordingly, CSPDCL was asked to resubmit the depreciation calculations for FY 2009-10 considering the depreciation rates as per the CSERC Tariff Regulations, 2006. CSPDCL submitted that depreciation amount submitted in the petition had been computed considering the depreciation rates specified in CSERC Tariff Regulation, 2006 for assets added till FY 2008-09 (till Dec) and the depreciation rates specified in CSERC MYT Regulation, 2010 for assets added after January 2009. CSPDCL corrected the depreciation calculations for assets added after January 2009 and re-submitted the asset wise calculations of depreciation, which have now been considered by the Commission.

9.55 The Commission has also reduced from the gross depreciation, depreciation on account of consumer contribution and grants and has approved net depreciation of Rs 58.16 Cr for FY 2009-10. The depreciation on account of consumer contribution has been calculated considering the consumer contribution/grants as per the provisional balance sheet of CSPDCL.

Table 92: Depreciation for FY 2009-10 (Rs Cr)

Partculars	Approved in TO 2009-10	Submitted	Approved
Gross Block as on 1st January 2009		1,749.56	1,749.56
Additions during FY 2008-09		62.75	62.75
Gross Block as on 31.3.2009		1,812.31	1,812.31
Additions during FY 2009-10		217.25	217.25
Gross Block as on 31.3.2010		2,029.56	2,029.56
Depreciation on assets added till 31.3.2009			56.07
Depreciation on New Additions			3.90
Total Depreciation during FY 2009-10		**62.82**	**59.98**
Less: Depreciation on account of Consumer Contribution			1.82
Net Depreciation	**42.22**	**62.82**	**58.16**

Return on Equity

9.56 CSPDCL has submitted return of equity at Rs 104 Cr against Rs 98.37 Cr of RoE approved for FY 2009-10. It has calculated RoE considering thirty (30) % of the opening GFA for FY 2009 -10 as the opening equity base for RoE calculation and rate of 16% as per CSERC MYT Regulations, 2010. The MAT rate of 16.99% is assumed for the purpose of calculating tax liabilities. Therefore the pre-tax equity rate is considered as 19.27%.

Commission's View

9.57 The CSERC MYT Regulations, 2010 were issued by the Commission in January, 2010 and are applicable during the first MYT control period: FY 2010-11 to FY 2012-13. The ARR of CSPDCL was approved under the provisions in the CSERC Tariff Regulations, 2006 and thus the provisional true up of FY 2009-10 will carried out under the provisions of the same regulations.

9.58 Accordingly the Commission has calculated the RoE at the rate of 14% and the return on equity has not been grossed by the MAT rate.

Table 93: Submitted and Approved RoE for FY 2009-10 (Rs Cr)

	Submitted	Approved
Opening GFA	1812	1812.31
Less: Consumer Contribution towards GFA at beginning of the year	50	53.06[2]
Opening Equity Qualified for RoE calculation (Normative Equity: 30% of the Net Opening GFA)	529	527.77
Capitalization during the period	217	217.25
Less: Capitalization due to Consumer Contributions during the period	131	158.95
Equity qualified for RoE Calculation due to Additional Capitalization (Min of Normative Equity: 30% of the Net New Additions and Actual Equity Capitalised)	26	17.49
Closing GFA	2030	2029.56
Less: Consumer Contribution towards GFA at end of the year	181	212.01
Closing Equity qualified for RoE calculation (Opening Equity + New Equity)	555	545.26
Average Equity during the period (Average of Opening and Closing Equity)	542.05	536.52
Rate of Return of Equity	16.00%	14.00%
MAT Rate	16.99%	
Pre Tax Rate of Return of Equity	19.27%	14.00%
Reasonable Return	**104**	**75.11**

Income Tax, Prior Period Credit and Bad Debts

9.59 CSPDCL has submitted income tax, net prior period credit and bad debts of Rs 18 Cr, Rs 7 Cr and Rs -3 Cr (recovery) respectively for FY 2009-10.

Commission's View

9.60 The income tax submitted by CSPDCL is the tax computed on RoE submitted for the year. No provision for income tax has actually been made in the provisional accounts of CSPDCL. Since no income tax has actually been paid by CSPDCL, the Commission has not allowed any tax for FY 2009-10.

9.61 The Commission has considered prior period credit of Rs 7 Cr as per the provisional accounts of CSPDCL.

---

[2] The consumer contribution towards GFA at the beginning of the year and towards assets capitalised during the year, has been calculated considering the ratio of CWIP to GFA as per the provisional balance sheet of CSPDCL.

9.62 CSPDCL has also shown a recovery of Rs 3 Cr on account of bad debts during FY 2009-10. The same has been considered by the Commission for this provisional true up.

Non Tariff Income

9.63 CSPDCL has submitted non tariff income including Interest on Staff Loans and Advance, income from Delayed Payment Surcharges and other income of Rs 230 Cr against an NTI of Rs 251 Cr approved in the tariff order of FY 2009-10.

Commission's View

9.64 The NTI for the year reported by CSPDCL is lower than the amount approved by the Commission in the previous tariff order. However, NTI approved by the Commission (Rs 251 Cr) in the previous order also included revenue from meter hire charges from domestic consumers that were abolished from FY 2009-10 onwards. The Commission had estimated that the loss of revenue due to abolition of such charges would approximately Rs 15 Cr which is also approximately the difference between the approved and actual NTI for FY 2009-10. The Commission has thus approved non tariff income, including meter rent, interest income, and revenue from DPS, of Rs 235 Cr as per the provisional accounts submitted by CSPDCL.

Revenue from Sale of Power

Revenue from Inter-State Sales

9.65 CSPDCL, in its petition, had submitted total revenue of Rs 837 Cr from inter-state sales and UI.

Segregation of Revenue from inter-state sales between CSPDCL and CSPTrCL

9.66 CSPDCL has also submitted that the revenue from inter-state sales included in the ARR is as per the provisional accounts of the company for the year. The accounting transactions of all the successor companies of CSEB for the FY 2009-10 have been undertaken by CSPHCL as per terms of Government of Chhattisgarh notification no F – 21/13/2009/13/2 dt. 31-03-2010. The segregation of accounts between respective successor companies was also undertaken by CSPHCL. Further, the segregation of accounts between CSPDCL and CSPTrCL has been undertaken as per the Report of the High Power Committee.

9.67 As per the Report of the High Power Committee the total power purchased from all sources has been segregated between CSPDCL and CSPTrCL considering the revised transfer scheme (CSEB Transfer Scheme Rules, 31.3.2010) issued by the Govt. of Chhattisgarh in supersession of the scheme earlier notified vide notification dated 31.12.2008.

9.68 Accordingly, it has been inferred that power from all sources with which the erstwhile CSEB had a long term contract shall be in account of CSPDCL and all short term power purchase shall be in the account of the trading company.

Thus all power from CSPGCL and firm allocation to the state from the Central Generating Stations should belong to CSPDCL. Also, M/s Jindal Steel and Power Limited (JSPL) power should be in the account of the CSPDCL as erstwhile CSEB had a long term contract with M/s JSPL and that of M/s Jindal Power Limited (JPL) power shall be in the account of the trading company. Rest all of the CPPs and IPPs, which have short term contract (for a period of one year), should be in the account of the trading company. Further, due to the fact that CSPDCL is a member of the UI pool account the entire UI should go to CSPDCL.

Following the above principle the revenue from sale of power through bilateral sales and power exchanges has been divided between CSPDCL and CSPTrCL.

9.69 CSPDCL has further submitted that:

"In the process of segregation the power purchased from IPP & CPPs which was vested in Govt. of Chhattisgarh were required to be derecognized from the account of CSPDCL. Accordingly, *necessary adjustments for transferring the Inter State Sale and discount thereof were to be carried out by the CSPHCL... As such while transferring the Inter State Sale from the account of CSPDCL corresponding discount, which should have been netted off from the sale was omitted due to oversight. Accordingly, the figure reflected in the discount account amounting to Rs. 26.15 cr will be transferred, taking due cognizance of the query raised by the Hon'ble Regulatory Commission. However, the omission does not render any impact on the profit and loss of the Company."*

Thus due to an accounting error Rs 26.15 Cr on account of discount to consumers for timely payment that should have been reduced from the inter-state sales was added as in the interest and finance charges while it should have been reduced from the account of CSPDCL against inter-state sales.

Commission's View

9.70 The Commission has stated in its previous tariff orders that the UI income earned by CSPDCL should be reduced from the total power purchase cost of the company and should not be included as a part of income from inter-state sales. Accordingly, the Commission has subtracted UI income from the total power purchase cost for the purpose of provisional true up.

9.71 With regards to the revenue from inter-state sales the Commission has considered provisionally the scheme of segregation of revenue from inter-state sales between CSPDCL and CSPTrCL as proposed by CSPDCL. However, the matter is yet to be completely resolved and will be re-looked into by the Commission during the final true up for FY 2009-10.

9.72 The Commission has also accepted CSPDCL's submission regarding the 'discount to consumers for timely payment' and have reduced the revenue from inter-state sales by Rs 26.15 Cr on account of it. However, the Commission has disallowed the same from the interest and finance charges in this provisional true up.

9.73 The Commission has thus considered net revenue from inter-state sales at Rs 27 Cr during FY 2009-10 as per the submissions made by CSPDCL. The same will however be re-looked into, and trued up, during the final true up for FY 2009-10.

Revenue from Retail Sales

9.74 CSPDCL has submitted revenue from sale of power at Rs 3132 Cr to LV, HV and EHV consumers against revenue of Rs 3466 Cr approved by the Commission in previous tariff order based on the actual sales for FY 2009-10.

Commission's View

9.75 The Commission asked CSPDCL to submit category-wise revenue from retail sales for FY 2009-10 in the format R12 and R13 prescribed by the Commission and CSPDCL submitted category-wise revenue for LV, HV and EHV sales for FY 2009-10.

9.76 CSPDCL has submitted in its petition that it has completed 100% metering of all its BPL and agricultural consumers in FY 2009-10. Accordingly, it has not restated its agricultural and BPL sales for the year. Consequently, the sales for these two categories have risen sharply in FY 2009-10. However, the revenue earned against these sales has not increased proportionately.

9.77 For BPL consumer category (LV 1.1) the sales and revenue for FY 2009-10 has been submitted at 729 MU and Rs 60 Cr respectively, which works out to be Rs .83/unit. Given that 100% metering has been achieved for all BPL consumers and average tariff of Rs 1.50/unit has been approved for metered consumers in the category, the average realised revenue of Rs .83/unit is unreasonably low. CSPDCL was also unable to provide any suitable explanation for the low revenue realisation.

9.78 Similarly, for the agriculture category (LV3), the sales and revenue for FY 2009-10 have been submitted at 1690 MU and Rs 74 Cr respectively, which works out to be Rs 0.44/unit. The Commission in its previous tariff order has approved an average tariff of Rs 0.79/unit for this category. CSPDCL was unable to provide any suitable explanation for the low revenue realisation in this category as well.

9.79 The Commission finds such low realisation of revenue inexplicable and it seems that either the correct revenue for the category is not being reported by CSPDCL or the sales to this category have been stated incorrectly. The Commission for this provisional true up has provisionally computed revenue for BPL and agriculture category at Rs 112 Cr and Rs 134 Cr respectively, using the Average Billing Rate (ABR) of Rs 1.53/unit and Rs .79/unit as approved by the Commission for the BPL and agriculture category in its previous tariff order. The same shall be trued up during the final true up for FY 2009-10 based upon the audited accounts of CSPDCL.

9.80 Taking into account the above, the Commission has considered the revenue from the approved retail sales as Rs 3243 Cr for FY 2009-10.

Annual Revenue Requirement (ARR)

9.81 The summary of ARR submitted by CSPDCL and approved by the Commission as per the analysis above is contained in Table 94 below.

Table 94: Submitted and Approved ARR for FY 2009-10 (Rs Cr)

Particulars	Approved in Tariff Order 2009-10	Petition	Approved
Power Purchase Expenses	3009	3564	2739*
Employee Expenses	548	645	564
R&M Expenses	92	92	92
A&G Expenses	30	86	79
Depreciation	42	63	58
Interest & Finance Charges	125	72	45
Interest. & Other Expenses Capitalized	-50	(21)	(21)

Particulars	Approved in Tariff Order 2009-10	Petition	Approved
Other Debits (Incl prov. For Bad Debts)	35	(3)	(3)
Misc. - Net Prior Period Credit		(7)	(7)
Income Tax Actually Paid	4	18	0
Total Expenses	**3835**	**4508**	**3546**
Add: Reasonable Return	98	104	75
Less: Other Non Tariff Income	251	230	235
Less: Sale of Power Outside State		837	27*
Annual Revenue Requirement	**3682**	**3544**	**3360**

* Net UI income has been reduced from power purchase expenses

Revenue Surplus/Deficit

9.82 Based on above true up analysis, the revenue surplus/deficit as proposed by CSPDCL and approved by the Commission for FY 2009-10 has been summarized below.

Table 95: Revenue Surplus/ deficit (Rs Cr) for FY 2009-10

Particulars	Petition	Approved
Annual Revenue Requirement	**3544**	**3360**
Revenue from Sale of Power	3132	3243
Revenue Surplus/(Deficit)	**(412)**	**(117)**

9.83 The approved revenue deficit of Rs.117 Cr for FY 2009-10 for CSPDCL would be carried forward while estimating the ARR and tariff for future years.

10 ALLOCATION OF REVENUE SURPLUS/DEFICIT FOR PREVIOUS YEARS (FY 2005-06 TO FY 2009-10)

10.1 The total revenue surplus/deficit from the truing up for previous years from FY 2005-06 to FY 2009-10 for CSEB/successor companies has been summarised below:

Table 96: Summary of Revenue Surplus/deficit from Previous Years (Rs Cr)

Sl. No.	Particulars	Petitioner's Submission	Commission's Analysis
1	FY 2005-06	-146	358
2	FY 2006-07	114	331
3	FY 2007-08	88	220
4	FY 2008-09	252	933
	Sub-Total upto FY 2008-09 (1 to 4)	*308*	*1842*
5	FY 2009-10		
	CSPGCL	-233	-123
	CSPTCL	-15	18
	CSPDCL	-412	-117
	Sub-Total FY 2009-10 (5)	*-659*	*-222*
6	**Grand Total - True up till FY 2009-10 (4 + 5)**	**-351**	**1620**

10.2 The approved revenue surplus upto FY 2008-09 has been allocated between the successor companies on the basis of the trend in average expenditure for CSPGCL, CSPTCL and CSPDCL during past years. Thus the revenue surplus upto FY 2008-09 has been allocated between CSPGCL, CSPTCL and CSPDCL in the ratio of 35:5:60. Further the Commission has added the approved revenue surplus/deficit for each company during FY 2009-10, to arrive at net revenue surplus/deficit for each company upto FY 2009-10 as summarized below.

Table 97: Allocation of Revenue Surplus/deficit upto FY 2009-10 to CSPGCL, CSPTCL, CSPDCL (Rs Cr)

Particulars	CSPGCL	CSPTCL	CSPDCL
Allocation Ratio (%)	**35**	**5**	**60**
FY 2005-06	125	18	215
FY 2006-07	116	17	199
FY 2007-08	77	11	132
FY 2008-09	327	47	560
FY 2009-10	-123	18	-117
Total	**522**	**110**	**988**

10.3 The net revenue surplus from the truing up of expenses upto FY 2009-10, of Rs.522 Cr, Rs.110 Cr and Rs.988 Cr. would be adjusted while determining the ARR for future years for CSPGCL, CSPTCL and CSPDCL, respectively.

11 CHHATTISGARH STATE POWER GENERATING COMPANY LIMITED– DETERMINATION OF ARR AND TARIFF FOR MYT CONTROL PERIOD FY2010-11 TO FY2012-13 (PETITION NO. -53/2010(T))

11.1 This section contains a summary of the ARR and MYT Petition for the period FY2010-11 to FY2012-13 as submitted by Chhattisgarh State Power Generating Company (CSPGCL) with the Commission and the analysis by the Commission.

About CSPGCL

11.2 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. Chhattisgarh State Power Generation Company Limited (CSPGCL) is responsible for operating and maintaining the State Generating Stations and also for installation of new power projects.

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

Table 98: 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

Particulars	Amount
Liabilities	
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

11.4 CSPGCL is pre-dominantly a thermal power producer. It has a capacity of 1924.70 MW of which 92% is thermal. Its portfolio constitutes of three thermal plants (1780 MW), one large hydro and three small hydro plants (138.70 MW) and one co-generation plant (6 MW).

Table 99: 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	2003-09	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.

MYT Filing and Technical Validation

11.5 CSPGCL filed the MYT Petition for determination of ARR and Tariff for Control Period FY2010-11 to FY2012-13 on October 13, 2010. On the initial scrutiny of the MYT petition, several discrepancies and additional information requirement were identified by the Commission and sent to CSPGCL. Subsequently, CSPGCL submitted the additional information and the petition was admitted by the Commission on December 23, 2010.

11.6 A Technical Validation Session (TVS) was held on January 19, 2011 which was attended by the staff of the Commission, officers of CSPGCL, and consultants of both CSPGCL and the Commission. During the discussions, CSPGCL was advised to furnish additional data, which were considered material for examination of the ARR and tariff, such as:

i) The consolidated balance sheet of CSEB (as on 31.12.08) as submitted in the true up petition does not match the consolidated balance sheet of CSEB (as on 31.12.08) as notified under provisions of the Chhattisgarh State Electricity Board Transfer Scheme Rules, 2010. The difference between two needs to be clarified and resolve.

ii) Asset category wise calculation of depreciation for CSEB from FY 2005-06 to FY 2008- 09 is required. Moreover, the depreciation rates used for calculation of depreciation for FY 2008-09 (Q4) by CSPDCL is not clear. Detailed calculation of the same should be provided.

iii) The details/proof of the actual income tax paid by CSEB in FY 2005-06 to FY 2008- 09 is required.

iv) In Schedule 9 (Employee Expenses), is the amount under Item No 7 - Interim Relief/Wage Revision, a provision or is it the actual funds paid out on account of wage revision?

v) In Schedule 9 (Employee Expenses), does the amount under Item no 20 - Terminal Benefits, include pension payments made to employees for the year? If yes, then the amount of pension payments and amount of funds transferred to the Pension Fund should be specified separately for each financial year.

vi) For FY 2008-09, Rs 183 Cr has been submitted as pension and gratuity till Dec'08. Whereas, in Q4 of FY 2008-09, CSPGCL, CSPTCL and CSPDCL have submitted Rs 59 Cr, Rs 23 Cr and Rs 139 Cr as pension and gratuity respectively, which totals to Rs 221 Cr in only one quarter. The high expenditure under this head should be justified.

vii) The actual employee expenses for CSEB for FY 2005-06 at Rs 636 Cr are substantially higher than the approved employee cost of Rs. 470 Cr. Reasons for the same should be given.

viii) The actual A&G expense for CSEB for FY 2005-06 at Rs 89 Cr is substantially higher than the approved A&G cost of Rs. 56 Cr. Reasons for the same should be given.

ix) In Schedule 8 (A&G Expenses), please provide the breakup of amount spent under item 7 (E) contributions.

x) Total A&G expenses for FY 2008-09 have increased from Rs 66.1 Cr for the entire year in FY 2007-08 to Rs 105 Cr (9 months of CSEB and total of Q4 expenses of three successor companies) in FY 2008-09. Reason for the same should be provided.

xi) In Schedule 12 (Interest and Finance Charges), it is noted that the interest paid on state govt loans @ Rs 132 Cr in FY 2005-06 is higher than the interest payment in the previous or succeeding year. The utility should provide a reason for the same.

xii) In Schedule 6 (Power Purchase Cost) are the given UI charges net off UI income?

xiii) The energy balance including sales and T&D losses has not been submitted along with the true up petition for FY 2005-06 to FY 2008-09. The same needs to provided.

xiv) In case of generation, petitioner needs to provide station-wise break-up of following information for all thermal stations and biomass cogeneration plant for FY 2005-06 to FY 2008-09:

(i) Actual fuel cost for all thermal stations (including cost of secondary fuel) and biomass cogeneration plant

(ii) Actual quantity of fuel consumed in each station (including secondary fuel)

(iii) Gross calorific value of fuel used in each thermal station (including GCV of secondary fuel) and co-gen plant

xv) Actual price of fuel - coal, secondary fuel and biomass

xvi) CSPGCL should submit a copy of Draft FRP submitted to GoCG for allocation of Assets and Liabilities of erstwhile CSEB to successor entities.

xvii) CSPGCL should provide the Provisional/Audited Accounts for the period 2008-09 (Quarter IV i.e. Jan-March 2009 after unbundling), FY 2009-10 Annual accounts and provisional first six months in 2010-11 i.e. up to September 30, 2010.

xviii) CSPGCL should provide information on COD of additional unit of 0.85 MW at Mini Micro HPS Korba Hydro. Also provide generation details for the period 2009-10.

xix) CSPGCL should clarify that the Thermal Capacity addition during the MYT Control Period (i.e. till 2012-13) is expected to be 1500 MW. Thus the total thermal installed capacity at end of Control Period should be 3280 (1780 + 1500) MW instead of 3380 MW as given in Tariff Petition (pg 4). There is difference of 100 MW.

xx) Actual Capital expenditure incurred by CSPGCL for the period 2009-10 and for first two quarters in 2010-11 i.e. up to September 30, 2010 on following:

- New Projects
- Renovation & Modernization Projects
- Capital Civil Projects and Capital O&M Projects

xxi) The utility should also provide details of any deviation in actual expenditure from the approved expenditure on above heads by the Commission in its Order dated June 1, 2010.

xxii) In case of DSPM TPS, CSPGCL has proposed transit loss of 0.80% for each year of Control Period. However, as per Regulation 28.6 of the CSERC MYT Regulations, 2010, the normative transit losses for DSPM TPS for the Control period are as given below. CSPGCL should provide the reasons for this deviation from norms.

Table 100: Normative Transit loss for MYT Period

2010-11	2011-12	2012-13
0.80%	0.75%	0.70%

xxiii) Copies of Coal bills and Fuel bills (actual) for the latest 3 months i.e. January-March 2010.

xxiv) Month-wise and Station-wise actual fuel consumption (including secondary fuel), fuel cost and calorific value statement for each fuel utilised at power station for the period 2009-10.

xxv) Details of actual O&M expenses incurred during FY 2009-10 and first two quarters in 2010-11 i.e. up to September 30, 2010.

xxvi) Actual data w.r.t. operational parameters (PAF, Auxiliary, SHR, SFC, etc) and fuel expenses for the FY 2009-10 and first two quarters in 2010-11 i.e. upto 30th September 2010.

xxvii) Unit wise actual Outage for CSPGCL's Generating Stations for FY 2009-10 specifying the details of the outages. Also provide details about planned outages during the MYT Control Period.

xxviii) Station-wise break-up of following information for all thermal stations and biomass cogeneration plant for FY 2005-06, FY 2006-07, FY 2007-08 and FY 2008-09:

- Actual fuel cost for all thermal stations (including cost of secondary fuel) and biomass cogeneration plant
- Actual quantity of fuel consumed in each station (including secondary fuel) and biomass cogeneration plant
- Gross calorific value of fuel used in each thermal station (including GCV of secondary fuel) and co-gen plant
- Actual price of fuel - coal, secondary fuel and biomass

xxix) The actual auxiliary consumption for 2009-10 submitted by CSPGCL for Biomass Co-generation plant is 30.73%, while the approved auxiliary consumption in TO 2009-10 was 10%. CSPGCL should provide reasons for this increase.

xxx) The actual generation (Gross) for 2009-10 submitted by CSPGCL for Biomass Co-generation plant is 5.73 MU, while the approved generation (Gross) in TO 2009-10 was 15.80 MU. There is a sharp decline in gross generation; CSPGCL should provide reasons for this.

xxxi) CSPGCL should provide copies of loan agreement for existing loans during 2009-10 and the basis for assuming the interest rate for new loans for the MYT Period i.e. 2010-11 to 2012-13.

xxxii) Submit documentary evidence justifying increase in O&M cost in FY 2008-09 over FY 2007-08.

xxxiii) Submit a note on treatment of water charges in ARR.

xxxiv) Clarify whether CSPGCL has received any benefit of CDM on account of renewable projects namely 3 SHP and 1 Kawardha co-gen project.

xxxv) Submit details of fuel price (landed cost of coal) for Korba East and Korba East Extn. For FY 2008-09 (Jan-Mar) and FY 2009-10 in the format attached for HTPS Korba West as submitted during TVS.

xxxvi) Submit a note on treatment of PAF for the MYT Period.

xxxvii) Scheme-wise details of capital expenditure, capitalisation and funding for FY 2008-09 and FY 2009-10.

xxxviii) Reconcile the values submitted as Revenue from sale of power of CSPGCL during the Jan-Mar 2009 period of FY 2008-09 i.e. Rs.367.95 crores with the Amount of power purchase from CSPGCL by the CSPDCL during the Jan-Mar 2009 period i.e. Rs.407 crores. Provide reasons for the variation of Rs.39.05 crores.

xxxix) CSPGCL should submit item-wise details as per Statement 1 (Revenue Account) and Statement 3 (Balance Sheet).

xl) CSPGCL should submit item-wise details for Generation of Power as per format attached.

xli) CSPGCL should submit item-wise details for R&M cost as per format attached.

xlii) CSPGCL should submit item-wise details for Employee cost as per format attached.

xliii) CSPGCL should submit item-wise details for A&G cost as per format attached.

xliv) CSPGCL should submit item-wise details for funds from State Government as per format attached.

xlv) CSPGCL should also submit details for source of Share Suspense A/c in the equity contribution from State Government.

xlvi) CSPGCL should submit details of capital liabilities, payment due on capital liabilities in the format attached for the period FY08-09 (Jan-Mar period) and FY09-10.

xlvii) CSPGCL should provide details of CWIP for period FY08-09 (Jan-Mar period) and FY09-10 in the given format.

Brief note on Public Hearing

11.7 CSPGCL issued public notice in the leading newspapers of the State inviting suggestions/comments/objections from the public on its MYT Petition for determination of ARR and Tariff for Control Period FY 2010-11 to FY 2012-13 on December 30, 2010. The Commission held the common public hearings for petitions filed by all three successor companies during the period February 4-18, 2011 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 past years

11.8 The Commission has carried out the truing up for FY 2005-06 to FY 2008-09 for the erstwhile CSEB and for FY 2009-10 for the successor companies. 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 CSPGCL has also been added. The approved net revenue surplus from truing up of past years is Rs.522 Cr for CSPGCL which has been adjusted while determining ARR for future years. The details of the truing up are contained in the sections dealing with true up in this order.

Annual Revenue Requirement (ARR) for Control Period (FY 2010-11 to FY 2012-13)

Performance Parameters of the Generating Stations

11.9 The performance parameters for its thermal, hydro and cogeneration stations for MYT period as proposed by CSPGCL in its petition and as approved by the Commission for the MYT Control period i.e. FY 2010-11 to FY 2012-13, are discussed below:

A) Plant Availability Factor (PAF) and Plant Load Factor (PLF) of thermal stations

11.10 CSPGCL has projected Normative Annual Plant Availability Factor (NAPAF) for MYT Period from FY 2010-11 to FY 2012-13, for all existing thermal stations based on norms specified by the Commission as per CSERC MYT Regulations, 2010 as summarised in Table 101.

Table 101: Station-wise NAPAF (%) submitted by CSPGCL

Sl. No.	Name of Plant	Installed Capacity (MW)	2010-11	2011-12	2012-13
1	HTPS Korba West	840	82.00%	82.00%	82.00%
2	KTPS Korba East	440	78.00%	78.25%	78.50%
3	DSPM Korba East (Extn.)	500	85.00%	85.00%	85.00%

Commission's View

11.11 The Commission specified the station-wise NAPAF for the MYT control period in the CSERC MYT Regulations, 2010 after taking into account plant R&M plans, overhauling, etc.

11.12 However, as the Intra-state ABT mechanism would take some time to become operative, the generation from each station has been projected on the basis of estimated Plant Load Factor (PLF) for each station. In case of FY 2010-11, as the year was almost over at the time of analysis of petition, the Commission asked CSPGCL to submit station-wise actual PLF achieved for FY 2010-11 till February 28, 2011 against which CSPGCL submitted the details of actual PLF for each station till March 16, 2011. Thus the Commission has adopted the estimated PLF for each station for the FY 2010-11 considering the actual PLF achieved upto March 16, 2011. In case of remaining years in the control period, in the absence of ABT mechanism for billing purposes, the Commission has considered NAPAF as specified in the CSERC MYT Regulations, 2010 as the estimated PLF for FY 2011-12 and FY 2012-13.

11.13 The NAPAF as per the CSERC MYT Regulations, 2010 and the estimated PLF for the control period as approved by the Commission has been summarized in Table 102 (a) & 5 (b).

Table 102 (a): Station-wise NAPAF (%) as approved by Commission

Name of Plant	2010-11	2011-12	2012-13
HTPS Korba West	82.00%	82.00%	82.00%
KTPS Korba East	78.00%	78.25%	78.50%
DSPM Korba East (Extn.)	85.00%	85.00%	85.00%

Table 5 (b): Station-wise Est. PLF (%) as approved by Commission

Name of Plant	Actual (till 16th March 2011)	Est. PLF for MYT Period		
		2010-11*	2011-12	2012-13
HTPS Korba West	90.76%	90.85%	82.00%	82.00%
KTPS Korba East	75.93%	75.90%	78.25%	78.50%
DSPM Korba East (Extn.)	96.71%	96.06%	85.00%	85.00%

Note: * The actual PLF till 16th March 2011 has been adjusted for calculated estimated PLF for complete FY 2010-11

B) Auxiliary Consumption of thermal stations

11.14 CSPGCL has projected station-wise auxiliary consumption requirement based on norms specified by the Commission as per the CSERC MYT Regulations, 2010 for the MYT Period from FY 2010-11 to FY 2012-13 as summarised in

11.15 Table 103.

Table 103: Station-wise Auxiliary Cons. (%) submitted by CSPGCL

No.	Name of Plant	2010-11	2011-12	2012-13
1	HTPS Korba West	9.00%	9.00%	9.00%
2	KTPS Korba East	10.40%	10.35%	10.30%
3	DSPM Korba East (Extn.)	9.00%	9.00%	9.00%

Commission's View

11.16 The Commission asked CSPGCL to submit details of station-wise actual auxiliary consumption for FY 2010-11 till February 28, 2011. CSPGCL submitted the details of actual auxiliary consumption for each station till March 16, 2011. Thus the Commission has adopted the easimated auxiliary consumption for each station for FY 2010-11 considering actual auxiliary consumption upto March 16, 2011 and the normative auxiliary consumption as per CSERC MYT Regulations, 2010 for remaining control period as summarized in Table 104.

Table 104: Auxiliary Cons. (%) for thermal stations approved by Commission

Sr. No.	Name of Plant	Actual (till 16th March 2011) *	2010-11	2011-12	2012-13
1	HTPS Korba West	8.70%	8.70%	9.00%	9.00%
2	KTPS Korba East	10.51%	10.53%	10.35%	10.30%
3	DSPM Korba East (Extn.)	7.62%	7.64%	9.00%	9.00%

Note: * The auxiliary consumption till 16th March 2011 has been adjusted to reflect the consumption for complete FY 2010-11

C) Generation from thermal stations

11.17 CSPGCL has projected gross and net generation for the control period for thermal stations based on installed capacity, NAPAF and normative auxiliary consumption as per the CSERC MYT Regulations, 2010 as summarised in Table 105.

Table 105: Station-wise Gross and Net Generation (MU) for thermal stations submitted by CSPGCL

FY	Gross Generation				Net Generation			
	HTPS	KTPS	DSPM	Total	HTPS	KTPS	DSPM	Total
2010-11	6034	3006	3723	**12763**	5491	2694	3388	**11573**
2011-12	6050	3024	3733	**12808**	5506	2711	3397	**11614**
2012-13	6034	3026	3723	**12783**	5491	2714	3388	**11593**

Commission's View

11.18 The Commission asked CSPGCL to submit details of station-wise actual generation for FY 2010-11 till February 28, 2011. CSPGCL submitted the details of actual generation for each station till March 16, 2011. Accordingly the Commission has adopted the actual generation for each station till March 16, 2011 and taken pro-rata generation for remaining 15 days to arrive at estimated generation for FY 2010-11. The generation for FY 2011-12 and FY 2012-13 has been approved on the basis of installed capacity, estimated PLF and normative auxiliary consumption. The station-wise gross and net generation for the MYT control period as approved by the Commission has been summarized in Table 106.

Table 106: Station-wise Gross and Net Generation (MU) for thermal stations approved by Commission

FY	Gross Generation				Net Generation			
	HTPS	KTPS	DSPM	Total	HTPS	KTPS	DSPM	Total
2010-11	6685	2925	4208	**13818**	6103	2617	3886	**12607**
2011-12	6050	3024	3733	**12808**	5506	2711	3397	**11614**
2012-13	6034	3026	3723	**12783**	5491	2714	3388	**11593**

Note: * The gross and net generation till 16th March 2011 has been adjusted to reflect the generation for complete FY 2010-11

D) Gross Generation from Hydro and Co-generation plants

11.19 CSPGCL has projected the gross generation from Hasdeo Bango HPS based on actual design energy for MYT Period from FY 2010-11 to FY 2012-13. While for the small hydro and cogeneration projects, generation has been estimated based on installed capacity and normative Capacity utilisation factor (CUF) as per CSERC's (Terms and conditions for determination of generation tariff and related matters for electricity generated by plants based on non-conventional sources of energy) Regulations, 2008 (*hereafter referred to as NCE Regulations 2008*) dated May 22, 2008 as summarised in Table 107.The norms for the Kawardha cogeneration plant has been taken as per the regulation for bio mass plant for the purpose of computation of energy generation.

Table 107: Gross Generation (MU) from Hydro and Co-generation Plants as submitted by CSPGCL

No.	Name of Plant	Installed Capacity (MW)	2010-11	2011-12	2012-13
1	Hasdeo Bango HPS	120	274.00	274.00	274.00
2	Small hydro & co-generation	24.7	104.24	105.84	105.55
	Total		**378.12**	**379.84**	**379.55**

Commission's View

11.20 The Commission obtained the details of actual generation from all hydro and cogeneration plants for FY 2010-11 till March 16, 2011. Accordingly the Commission has adopted the actual generation for hydro & cogeneration station till March 16, 2011 and taken pro-rata generation for remaining 15 days to arrive at the total estimated generation for FY 2010-11.

11.21 In case of remaining period of control period i.e. FY 2011-12 and FY 2012-13, the Commission has estimated the gross generation as follows:

11.22 The Commission has analysed the past performance of Hasdeo Bango HPS and found that the actual generation from the plant has been near the design energy. Thus the Commission approves 274 MU based on design energy as gross generation from this plant for FY 2011-12 and FY 2012-13.

11.23 In case of Gangrel, Sikasar and Mini Micro Korba small hydro stations and co-generation plant, the Commission has estimated the gross generation for FY 2011-12 and FY 2012-13 based on the installed capacity and the normative CUF as per its NCE Regulations 2008. The normative CUF for small hydro and cogeneration plant for remaining MYT control period has been summarised in Table 108.

Table 108: Normative CUF (%) for NCE Projects

No.	Name of Plant	2011-12	2012-13
1	Small hydro Projects	40%	40%
2	Co-generation Plants	80%	80%

11.24 Table 109 summarises the gross generation from hydro stations and co-generation plant as approved by Commission.

Table 109: Gross Generation (MU) from Hydro and Co-generation Plants approved by Commission

No.	Name of Plant	2010-11	2011-12	2012-13
1	Hasdeo Bango HPS	125.65	274.00	274.00
2	Small hydro & co-generation	55.78	105.84	105.55
	Total	**181.44**	**379.84**	**379.55**

E) Auxiliary Consumption of hydro & co-generation stations

11.25 CSPGCL has projected auxiliary consumption requirement based on norms specified by the Commission as per the CSERC MYT Regulations, 2010 for Hasdeo Bango HPS and as per NCE Regulations 2008 for the MYT Period from FY 2010-11 to FY 2012-13 as summarised in Table 110.

Table 110: Auxiliary Cons. (%) for hydro and co-generation projects submitted by CSPGCL

No.	Name of Plant	2010-11	2011-12	2012-13
1	Hasdeo Bango HPS	1.00%	1.00%	1.00%
2	Small hydro	2.00%	2.00%	2.00%
3	Kawardha Co-generation	10.00%	10.00%	10.00%

Commission's View

11.26 The Commission asked CSPGCL to submit details of actual auxiliary consumption for hydro and cogeneration plant for FY 2010-11 till February 28, 2011. CSPGCL submitted the details of actual auxiliary consumption till March 16, 2011. Thus the

Commission has adopted the actual auxiliary consumption for hydro plants for FY 2010-11. However in case of cogeneration plant, the Commission observes that the actual auxiliary consumption in FY 2010-11 of 30% is very high and not acceptable. Hence in case of cogeneration plant the Commission approves normative auxiliary consumption for FY 2010-11.

11.27 For the remaining control period i.e. FY 2011-12 and FY 2012-13, the Commission approves the normative auxiliary consumption as per CSERC MYT Regulations, 2010 and the NCE Regulations 2008 for hydro and cogeneration plants. The auxiliary consumption approved for hydro and cogeneration plant is summarized in Table 111.

Table 111: Auxiliary Cons. (%) for Hydro and co-generation projects approved by Commission

No.	Name of Plant	2010-11	2011-12	2012-13
1	Hasdeo Bango HPS	1.26%	1.00%	1.00%
2	Small hydro	1.29% - 2.52%	2.00%	2.00%
3	Kawardha Co-generation	10.00%	10.00%	10.00%

F) Net Generation from hydro and co-generation stations

11.28 CSPGCL has estimated the net generation based on estimated gross generation and normative auxiliary consumption for the Control Period for hydro and co-generation station as summarised in Table 112.

Table 112: Net Generation (MU) for Hydro and co-generation projects submitted by CSPGCL

No.	Name of Plant	2010-11	2011-12	2012-13
1	Hasdeo Bango HPS	271.26	271.26	271.26
2	Small hydro & Co-generation	99.06	99.33	99.06
	Total	**370.32**	**370.59**	**370.32**

Commission's View

11.29 In case of FY 2010-11, the Commission has estimated the net generation from hydro and cogeneration stations based on actual gross generation and auxiliary consumption. While for the remaining control period i.e. FY 2011-12 and FY 2012-13, the Commission has estimated the net generation from hydro and cogeneration stations based on normative CUF and normative auxiliary consumption has been summarized in Table 113.

Table 113: Net Generation (MU) for Hydro and co-generation projects approved by Commission

No.	Name of Plant	2010-11	2011-12	2012-13
1	Hasdeo Bango HPS	124.07	271.26	271.26
2	Small hydro & Co-generation	52.58	100.61	100.34
	Total	**176.66**	**371.87**	**371.60**

11.30 The Total Generation from all stations for the MYT control period as submitted by CSPGCL and as approved by the Commission has been summarized in Table 114.

Table 114: Total Net Generation (MU) for all stations submitted by CSPGCL & approved by Commission

No.	Name of Plant	Proposed by CSPGCL			Approved by Commission		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
A.	**Thermal**						
1	HTPS Korba West	5491	5506	5491	6103	5506	5491

No.	Name of Plant	Proposed by CSPGCL			Approved by Commission		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
2	KTPS Korba East	2694	2711	2714	2617	2711	2714
3	DSPM Korba East (Extn.)	3388	3397	3388	3886	3397	3388
	Sub-Total (A)	***11573***	***11614***	***11593***	***12607***	***11614***	***11593***
B.	**Hydro & Co-generation**						
4	Hasdeo Bango HPS	271.26	271.26	271.26	124.07	271.26	271.26
5	Small hydro & co-generation	99.06	99.33	99.06	52.58	100.61	100.34
	Sub-Total (B)	***370.59***	***370.32***	***370.59***	***176.66***	***371.87***	***371.60***
	Total (A+B)	**11943**	**11985**	**11963**	**12783**	**11986**	**11964**

G) Station Heat Rate

11.31 CSPGCL has projected the station heat rate (SHR) for MYT Control period based on norms of operations as per the CSERC MYT Regulations, 2010.

Commission's View

11.32 The Commission has accepted the projections made by CSPGCL and approved the SHR for the MYT Control Period as given in Table 115.

Table 115: SHR (kCal/kWh) submitted by CSPGCL & approved by Commission

No.	Name of Plant	2010-11	2011-12	2012-13
1	HTPS Korba West	2650	2650	2650
2	KTPS Korba East	2975	2950	2925
3	DSPM Korba East (Extn.)	2500	2500	2500

H) Specific Oil Consumption (SOC)

11.33 CSPGCL has projected the specific oil consumption for MYT Control period based on norms of operations as per the CSERC MYT Regulations, 2010.

Commission's View

11.34 The Commission has accepted the projections made by CSPGCL and approved the SOC for the MYT Control Period as given in Table 116.

Table 116: SOC (ml/kWh) submitted by CSPGCL & approved by Commission

No.	Name of Plant	2010-11	2011-12	2012-13
1	HTPS Korba West	1.00	1.00	1.00
2	KTPS Korba East	2.25	2.15	2.00
3	DSPM Korba East (Extn.)	1.00	1.00	1.00

Generation cost (for thermal stations)

11.35 CSPGCL gets its coal supply from South Eastern Coal Ltd. (SECL) coalfields near Korba. Coal is transported by various sources such as railways, ropeway and conveyor belt over a distance of about 10-15 km. The secondary fuel (oil) is supplied by the oil companies.

A) Transit & stacking loss of coal

11.36 CSPGCL has projected the transit loss for Korba West (pit head generating station) and Korba East as per the norms specified in CSERC MYT Regulations, 2010. However for DSPM, which is a non pit head station which uses Indian Railways for transportation of coal, it has projected transit loss to be 0.80% for the control period.

Commission's View

11.37 The Commission approves the transit loss projected by CSPGCL for Korba West and Korba East thermal power stations as per the CSERC MYT Regulations, 2010 for the control period. Further in case of DSPM, the Commission has approved the normative transit losses for the control period as per the norms specified in the CSERC MYT Regulations, 2010. Table 117 summarises the transit loss for the control period as projected by CSPGCL and as approved by the Commission.

Table 117: Transit Loss (%) as submitted by CSPGCL & approved by Commission

No.	Name of Plant	Proposed by CSPGCL			Approved by Commission		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	HTPS Korba West	0.30%	0.30%	0.30%	0.30%	0.30%	0.30%
2	KTPS Korba East	1.25%	1.20%	1.15%	1.25%	1.20%	1.15%
3	DSPM Korba East (Extn.)	0.80%	0.80%	0.80%	0.80%	0.75%	0.70%

B) Calorific value of Coal and Secondary fuel

11.38 CSPGCL has projected the weighted average Gross calorific value (GCV) of coal (kCal/kg) based on actual coal consumption and GCV of coal fired during last three months preceding the tariff period i.e. January-March 2010. The GCV for oil has been projected to be 10000 kCal/lt.

Commission's View

11.39 The station-wise details of GCV of coal fired for last three months preceding the tariff period as submitted by CSPGCL have been summarised in Table 118.

Table 118: GCV of Coal fired for latest months preceeding tariff period

No.	Name of Plant	GCV of Coal Fired (kCal/kg)		
		Mar-10	Feb-10	Jan-10
1	HTPS Korba West	3565	3582	3621
2	KTPS Korba East	3175	3165	3172
3	DSPM Korba East (Extn.)	3518	3493	3351

11.40 Based on the last three months data, the Commission estimated the station-wise weighted average calorific value of coal. Based on the CSERC MYT Regulations, 2010, the Commission approves the station-wise weighted average GCV of coal for the entire MYT control period which is in line with submission made by CSPGCL.

11.41 In case of oil, the Commission has approved GCV at 10000 kCal/lt for all thermal stations for the control period as submitted by CSPGCL. Table 120 summarises the GCV of coal and oil for the control period as projected by CSPGCL and as approved by the Commission.

Table 119: GCV for Coal & oil as submitted by CSPGCL & approved by Commission

No.	Name of Plant	Proposed by CSPGCL 2010-11 to 2012-13	Approved by Commission 2010-11 to 2012-13
A.	**Weighted Avg. GCV of Coal (kCal/kg)**		
1	HTPS Korba West	3591	3591
2	KTPS Korba East	3171	3171
3	DSPM Korba East (Extn.)	3455	3455
B.	**GCV of Oil (kCal/lt)**		
1	HTPS Korba West	10000	10000
2	KTPS Korba East	10000	10000
3	DSPM Korba East (Extn.)	10000	10000

C) Landed Price of Primary Fuel (LPPF)

11.42 In case of thermal plants, CSPGCL has projected station-wise LPPF of coal for the MYT control period based on prevailing price of coal for last three months preceding the tariff period i.e. January-March 2010. It includes coal cost charged by Coal Company, additional charges paid to SECL and transportation charges. The station-wise details of computation of LPPF submitted by CSPGCL has been summarised in Table 120.

Table 120: Computation of LPPF as submitted by CSPGCL

Particulars	Units	HTPS Korba West			KTPS Korba East			DSPM Korba East (Extn)		
		Mar-10	Feb-10	Jan-10	Mar-10	Feb-10	Jan-10	Mar-10	Feb-10	Jan-10
Amount charged by the Coal company	Rs Cr	38.38	29.45	42.85	20.93	18.58	21.76	23.52	17.09	20.34
Adjustment (+/-) in amount charged	Rs Cr	0.18	3.44	0.00	0.06	0.05	0.30	0.00	0.00	0.00
Additional Claim amount by SECL as per FSA	Rs Cr	1.79	1.53	1.99	0.08	0.07	0.08	1.01	0.74	0.88
Transportation charges	Rs Cr	2.45	2.53	2.15	1.42	2.25	1.35	3.10	2.50	2.51
Total coal cost	**Rs Cr**	**42.79**	**36.95**	**46.99**	**22.37**	**20.85**	**22.90**	**27.64**	**20.32**	**23.72**
Net coal supplied	MMT	0.519	0.443	0.557	0.280	0.249	0.290	0.302	0.220	0.262
LPPF	Rs/MT	824.40	834.67	815.04	798.79	838.07	789.66	913.61	925.06	907.13
Weighted Avg. LPPF for Control Period	**Rs/MT**	**823.85**			**807.49**			**914.65**		

Commission's View

11.43 The Commission has accepted the methodology submitted by CSPGCL and has estimated the station-wise weighted average price of coal on the basis of actual cost of coal and coal consumption during last three months (i.e. January-March 2010) preceding the tariff period. The Commission also obtained station-wise copies of coal bills for last three months for verification of the coal cost submitted by CSPGCL. Further Clean energy cess of Rs.50/tonne has been made applicable from July 1, 2010. The Commission has considered the impact of clean energy cess on coal price. In addition, while estimating the weighted average price for DSPM, the Commission has considered normative transit loss instead of that proposed by CSPGCL. The station-wise details of computation of LPPF as approved by the Commission has been summarised in Table 121 & Table 122.

Table 121: Computation of LPPF as approved by Commission

Particulars	Units	HTPS Korba West			KTPS Korba East			DSPM Korba East (Extn)		
		Mar-10	Feb-10	Jan-10	Mar-10	Feb-10	Jan-10	Mar-10	Feb-10	Jan-10
Amount charged by the Coal company	Rs Cr	38.38	29.45	42.85	20.93	18.58	21.76	23.52	17.09	20.34
Adjustment (+/-) in amount charged	Rs Cr	0.18	3.44	0.00	0.06	0.05	0.30	0.00	0.00	0.00
Additional Claim amount by SECL as per FSA	Rs Cr	1.79	1.53	1.99	0.08	0.07	0.08	1.01	0.74	0.88
Transportation charges	Rs Cr	2.45	2.53	2.15	1.42	2.25	1.35	3.10	2.50	2.51
Total coal cost	**Rs Cr**	**42.79**	**36.95**	**46.99**	**22.37**	**20.85**	**22.90**	**27.64**	**20.32**	**23.72**
Net coal supplied	MMT	0.519	0.443	0.557	0.280	0.249	0.290	0.302	0.220	0.262
LPPF	Rs/MT	824.40	834.67	815.04	798.79	838.07	789.66	913.61	924.59	906.21
Weighted Avg. LPPF for Control Period	**Rs/MT**	**823.85**			**807.49**			**914.22**		

Table 122: LPPF including impact of Clean Energy Cess (Rs/MT)

Particulars	HTPS Korba West			KTPS Korba East			DSPM Korba East (Extn)		
	2010-11*	2011-12	2012-13	2010-11*	2011-12	2012-13	2010-11*	2011-12	2012-13
Weighted Avg. LPPF (as approved now)	823.85	823.85	823.85	807.49	807.49	807.49	914.22	914.22	914.22
Add: Clean Energy Cess on Coal @ Rs.50/tonne	50	50	50	50	50	50	50	50	50
Weighted Avg. LPPF incl. Clean Energy Cess	**865.18**	**878.96**	**878.96**	**848.83**	**862.61**	**862.61**	**955.55**	**969.33**	**969.33**

Note: *During FY 2010-11, the Clean energy cess is applicable for 9 months only

D) Cost of primary fuel (coal)

11.44 The cost of primary fuel based on operational parameters and LPPF, as submitted by CSPGCL and approved by the Commission has been summarised in Table 123.

Table 123: Cost of Primary fuel (Rs Cr) for thermal stations as submitted by CSPGCL & as approved by Commission

No.	Name of Plant	Submitted by CSPGCL			Approved by Commission		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	HTPS Korba West	365.47	366.47	365.47	425.20	390.98	389.92
2	KTPS Korba East	226.05	225.54	223.84	231.21	240.94	239.11
3	DSPM Korba East (Extn.)	245.40	246.07	245.40	289.74	260.78	260.07

E) Cost of secondary fuel (Oil)

11.45 CSPGCL uses a mix of furnace oil (FO) and HSD/LDO as secondary fuel. Furnace oil is considered as the main secondary fuel. For estimating the weighted average price of secondary fuel, CSPGCL in its petition has submitted the details of actual prices and consumption of FO and HSD/LDO for the latest available data preceding the tariff period.

Commission's View

11.46 The Commission has obtained the details of station-wise actual secondary fuel oil prices and consumption for the period from Jan-March 2010. The Commission has estimated the station-wise weighted average price secondary fuel for the control period on the basis of latest bills submitted by CSPGCL for Furnace Oil (FO) and HSD/LFO. Table 124 presents a summary of station-wise weighted average price of secondary fuel as proposed by CSPGCL and as approved by Commission for the control period.

Table 124: Weighted average price of secondary fuel (Rs/kl) as proposed by CSPGCL & approved by Commission

Particulars	HTPS Korba West (2010-11 to 2012-13)	KTPS Korba East (2010-11 to 2012-13)	DSPM Korba East (Extn) (2010-11 to 2012-13)
Weighted average price of secondary fuel	34126	33426	33696
Weighted average price of main secondary fuel (FO)	33427	33364	32433
Weighted average price of other secondary fuel (HSD/LDO)	36862	36450	36549

11.47 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 the control period as summarised in Table 125(a) & (b).

Table 125 (a): Secondary fuel oil cost (Rs Cr) as submitted by CSPGCL

Particulars	Units	HTPS Korba West			KTPS Korba East			DSPM Korba East (Extn)		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Units of Generation at NAPAF	MU	6034	6050	6034	3006	3024	3026	3723	3733	3723
Specific Fuel Oil Consumption (SFC)	ml/Kwh	1.00	1.00	1.00	2.25	2.15	2.00	1.00	1.00	1.00
Calorific Value of Secondary Fuel (CVSF)	Kcal/L	10000	10000	10000	10000	10000	10000	10000	10000	10000
Weighted Average Landed Price of Secondary Fuel	Rs./KL	34126	34126	34126	33426	33426	33426	33696	33696	33696
Average Cost of Secondary Fuel per Month	Rs Cr/ month	1.716	1.721	1.716	1.884	1.811	1.686	1.045	1.048	1.045
Secondary fuel oil cost	**Rs Cr**	**20.59**	**20.65**	**20.59**	**22.61**	**21.73**	**20.23**	**12.55**	**12.58**	**12.55**

Table 122 (b): Secondary fuel oil cost (Rs Cr) as approved by Commission

Particulars	Units	HTPS Korba West			KTPS Korba East			DSPM Korba East (Extn)		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Units of Generation at est. PLF	MU	6685	6050	6034	2925	3024	3026	4208	3733	3723
Specific Fuel Oil Consumption (SFC)	ml/Kwh	1.00	1.00	1.00	2.25	2.15	2.00	1.00	1.00	1.00
Calorific Value of Secondary Fuel (CVSF)	Kcal/L	10000	10000	10000	10000	10000	10000	10000	10000	10000
Weighted Average Landed Price of Secondary Fuel	Rs./KL	34126	34126	34126	33426	33426	33426	33696	33696	33696
Average Cost of Secondary Fuel per Month	Rs Cr/ month	1.901	1.721	1.716	1.833	1.811	1.686	1.182	1.048	1.045
Secondary fuel oil cost	**Rs Cr**	**22.81**	**20.65**	**20.59**	**22.00**	**21.73**	**20.23**	**14.18**	**12.58**	**12.55**

Capital Expenditure and Capitalization

11.48 CSPGCL has proposed station-wise details of Capital expenditure and additional capitalization during the control period as per the Business Plan approved for the MYT Period.

Commission's View

11.49 The Commission has observed that the details of additional capitalisation proposed by CSPGCL are not as per the Business Plan approved by the Commission for the MYT period. However as the targets for the capitalisation during the control period had already been approved by the Commission in the Business Plan, thus it has approved station-wise additional capitalization values as per the Business Plan for control period. However in case of DSPM, CSPGCL has submitted that an additional Rs.1 Cr for raising of ash bund utilization shall be capitalised in FY 2011-12, after the cut-off date of March 31, 2011, as permissible under Regulation 16.2 (iii) of the CSERC MYT Regulations, 2010. The Commission approves this expenditure. Table 126 presents a summary of additional capitalization as proposed by CSPGCL and as approved by Commission.

Table 126: Additional Capitalisation (Rs Cr) as submitted by CSPGCL & as approved by Commission

Particulars	Proposed by CSPGCL				Approved by Commission			
	2010-11	2011-12	2012-13	Total	2010-11	2011-12	2012-13	Total
HTPS Korba West	86	68	108	262	90	25	116	231
KTPS Korba East	59	0	77	136	65	16	5	86
DSPM Korba East (Extn)	103	1	0	104	103	1	0	104
Hasdeo Bango HPS	0.0	0.4	0.0	0.4	0.1	0.0	0.0	0.1
Gangrel SHP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sikasar SHP	0.3	0.0	0.0	0.3	0.2	0.0	0.0	0.2
Mini Micro Korba SHP	0.4	0.0	0.0	0.4	0.2	0.0	0.0	0.2
Total	**248**	**69**	**185**	**503**	**258**	**42**	**121**	**421**

Depreciation

11.50 In case of thermal and Hasdeo Bango station, CSPGCL has estimated the station-wise cost of depreciation as per the CSERC MYT Regulations, 2010. The depreciable value of asset has been considered upto 90% of the admitted capital cost of the plant. Further for existing stations, cumulative depreciation as on 31.03.2010 has been deducted from the depreciable value of asset and depreciation is estimated on the remaining 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.

11.51 In case of small hydro plants, CSPGCL has proposed depreciation as specified in the NCE Regulations 2008, wherein depreciation is to be charged on SLM basis on 90% of the value of assets and as per rates specified by the latest CERC Regulations for determination of Renewable Energy (RE) tariff. CERC has specified that for the first 10 years assets would be depreciated at 7% p.a. on SLM basis and the balance depreciation would be spread out in remaining useful life of plant. As all the small hydro plants of CSPGCL are less than 10 years, rate of depreciation applied is 7% p.a.

Commission's View

11.52 The Commission accepts the methodology as submitted by CSPGCL for thermal and hydro stations. Table 127 summarises the station-wise depreciation cost as submitted by the petitioner and as approved by the Commission.

Table 127: Depreciation (Rs Cr) as submitted by CSPGCL & as approved by Commission

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
HTPS Korba West	78	97	9	78	96	7
KTPS Korba East	31	32	34	31	33	33
DSPM Korba East (Extn)	116	119	119	116	119	119
Hasdeo Bango HPS	2.4	2.4	2.4	2.4	2.4	2.4
Gangrel SHP	3.0	3.0	3.0	3.0	3.0	3.0
Sikasar SHP	2.2	2.2	2.2	2.2	2.2	2.2
Mini Micro Korba SHP	0.9	0.9	0.9	0.9	0.9	0.9
Total	**233**	**257**	**170**	**233**	**256**	**168**

Return on Equity (ROE)

11.53 CSPGCL has estimated the station-wise ROE on normative equity. The rate of return on equity for thermal and Hasdeo Bango hydro station has been estimated on the basis of Regulation 22 of the CSERC MYT Regulations, 2010 for the entire control period i.e. pre-tax base rate of 15.50%. While ROE for small hydro stations has been estimated @ 16% for small hydro stations. Base rate is then grossed up by the MAT rate applicable for the control period i.e. 19.93%. Thus the grossed up ROE proposed for the entire control period for thermal and Hasdeo Bango hydro stations is 19.36% p.a. and for small hydro plants is 19.98%.

Commission's View

11.54 The Commission estimates the normative equity for calculation of ROE as per Regulation 19 of the MYT Regulation 2010. Further the Commission accepts grossed up ROE i.e. 19.36% p.a. as proposed by CSPGCL for thermal and Hasdeo Bango hydro stations. However in case of small hydro projects the Commission approves rate of ROE of 16% p.a. as per its NCE Regulations 2008. Table 128 & Table 129 summarise the station-wise ROE as proposed by CSPGCL and as approved by Commission.

Table 128: Return on Equity (Rs Cr) for thermal and Hasdeo Bango stations as submitted by CSPGCL & as approved by Commission

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
A. HTPS Korba West						
GFA as on 31.03.05	628			628		
Additions in GFA till 31.3.10	169			169		
Opening GFA as on 31.3.10	797	883	951	797	887	912
Additional Capitalisation during the year	86	68	108	90	25	116
Closing GFA	883	951	1059	887	912	1028
Normative Equity						
On Opening GFA as on 31.3.05 @ 42%	264			264		
on Additions in GFA till 31.3.10 @ 30%	51			51		
Opening Normative Equity	315	340	361	315	342	349
On Additional Capitalisation during the year @ 30%	26	20	32	27	7	35
Closing Normative Equity	340	361	393	342	349	384
Average Normative Equity	**327**	**350**	**377**	**328**	**345**	**366**
ROE @ 19.36% p.a.	**63**	**68**	**73**	**64**	**67**	**71**
B. KTPS Korba East						
GFA as on 31.03.05	147			147		
Additions in GFA till 31.3.10	409			409		
Opening GFA as on 31.3.10	556	615	615	556	621	637
Additional Capitalisation during the year	59	0	77	65	16	5
Closing GFA	615	615	692	621	637	642
Normative Equity						
On Opening GFA as on 31.3.05 @ 42%	62			62		
on Additions in GFA till 31.3.10 @ 30%	123			123		
Opening Normative Equity	184	202	202	184	204	209
On Additional Capitalisation during the year @ 30%	18	0	23	20	5	2
Closing Normative Equity	202	202	225	204	209	210
Average Normative Equity	**193**	**202**	**214**	**194**	**206**	**210**
ROE @ 19.36% p.a.	**37**	**39**	**41**	**38**	**40**	**41**
C. DSPM						
Opening GFA as on 31.3.10	2151	2254	2255	2151	2254	2255
Additional Capitalisation during the year	103	1	0	103	1	0
Closing GFA	2254	2255	2255	2254	2255	2255
Normative Equity						
Opening Normative Equity	592	618	619	592	618	619
On Additional Capitalisation during the year @ 30%	26	1	0	26	1	0
Closing Normative Equity	618	619	619	618	619	619
Average Normative Equity	**605**	**619**	**619**	**605**	**619**	**619**

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
ROE @ 19.36% p.a.	**117**	**120**	**120**	**117**	**120**	**120**
D. Hasdeo Bango						
GFA as on 31.03.05	106			106		
Additions in GFA till 31.3.10	5			5		
Opening GFA as on 31.3.10	111	111	111	111	111	111
Additional Capitalisation during the year	0.0	0.4	0.0	0.1	0.0	0.0
Closing GFA	111	111	111	111	111	111
Normative Equity						
On Opening GFA as on 31.3.05 @ 42%	45			45		
on Additions in GFA till 31.3.10 @ 30%	1			1		
Opening Normative Equity	46	46	46	46	46	46
On Additional Capitalisation during the year @ 30%	0.00	0.11	0.00	0.03	0.00	0.00
Closing Normative Equity	46	46	46	46	46	46
Average Normative Equity	**46**	**46**	**46**	**46**	**46**	**46**
ROE @ 19.36% p.a.	**8.9**	**8.9**	**8.9**	**8.9**	**8.9**	**8.9**

Table 129: Return on Equity (Rs Cr) for small hydro stations as submitted by CSPGCL & as approved by Commission

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
A. Gangrel SHP						
Opening GFA as on 31.3.10	44	44	44	44	44	44
Additional Capitalisation during the year	0	0	0	0	0	0
Closing GFA	44	44	44	44	44	44
Normative Equity						
Opening Normative Equity	13	13	13	13	13	13
On Additional Capitalisation during the year @ 30%	0	0	0	0	0	0
Closing Normative Equity	13	13	13	13	13	13
Average Normative Equity	**13**	**13**	**13**	**13**	**13**	**13**
ROE @ 16% p.a. allowed by Commission	**2.61**	**2.61**	**2.61**	**2.09**	**2.09**	**2.09**
B. Sikasar SHP						
Opening GFA as on 31.3.10	31.22	31.48	31.48	31.22	31.46	31.46
Additional Capitalisation during the year	0.26	0.00	0.00	0.24	0.00	0.00
Closing GFA	31.48	31.48	31.48	31.46	31.46	31.46
Normative Equity						
Opening Normative Equity	9.37	9.44	9.44	9.37	9.44	9.44
On Additional Capitalisation during the year @ 30%	0.08	0.00	0.00	0.07	0.00	0.00
Closing Normative Equity	9.44	9.44	9.44	9.44	9.44	9.44
Average Normative Equity	**9.40**	**9.44**	**9.44**	**9.40**	**9.44**	**9.44**
ROE @ 16% p.a. allowed by Commission	**1.88**	**1.89**	**1.89**	**1.50**	**1.51**	**1.51**
C. Mini Micro Korba SHP						
Opening GFA as on 31.3.10	12.25	12.65	12.65	12.25	12.40	12.40
Additional Capitalisation during the year	0.40	0.00	0.00	0.15	0.00	0.00
Closing GFA	12.65	12.65	12.65	12.40	12.40	12.40
Normative Equity						
Opening Normative Equity	4.42	4.54	4.54	4.42	4.46	4.46
On Additional Capitalisation during the year @ 30%	0.12	0.00	0.00	0.05	0.00	0.00
Closing Normative Equity	4.54	4.54	4.54	4.46	4.46	4.46

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Average Normative Equity	4.48	4.54	4.54	4.44	4.46	4.46
ROE @ 16% p.a. allowed by Commission	0.89	0.91	0.91	0.71	0.71	0.71

Interest on Loan

11.55 CSPGCL has estimated the station-wise interest on gross normative loan arrived on the basis of GFA less normative equity. CSPGCL has estimated the rate of interest for thermal and Hasdeo Bango hydro stations over the control period based on the weighted average rate of interest as per the actual loan portfolio during base year and projected during the MYT period. The calculation of station-wise weighted average rate of interest as submitted by CSPGCL is given in Annexure 3 while the summary of station-wise weighted average rate of interest as submitted by CSPGCL is given in Table 130.

Table 130: Station-wise weighted average rate of interest (%) for thermal & Hasdeo Bango as submitted by CSPGCL

Name of Plant	2010-11	2011-12	2012-13
HTPS Korba West	10.19%	9.75%	9.97%
KTPS Korba East	9.61%	8.75%	8.86%
DSPM Korba East (Extn)	11.50%	11.50%	11.50%
Hasdeo Bango HPS	9.30%	8.02%	8.00%

11.56 In case of small hydro stations, CSPGCL has submitted rate of interest on loan to be equal to the approved rate of interest of 11.75% for biomass projects as per the CSERC order dated January 15, 2008.

Commission's View

11.57 The Commission accepts the approach adopted by CSPGCL which is also in line with the CSERC MYT Regulations, 2010. The Commission obtained the actual loan details for the thermal and Hasdeo Bango stations, based on which it has estimated the station-wise weighted average rate of interest for the control period which is summarised in Table 131. The detailed station-wise calculations for estimation of approved weighted average interest on loan are given in Annexure 4.

Table 131: Station-wise weighted average rate of interest (%) as approved by Commission

Name of Plant	2010-11	2011-12	2012-13
HTPS Korba West	10.05%	9.75%	9.97%
KTPS Korba East	9.61%	8.75%	8.86%
DSPM Korba East (Extn)	11.50%	11.50%	11.50%
Hasdeo Bango HPS	9.27%	8.00%	8.00%

11.58 Further in case of small hydro generating stations, Commission has specified in its NCE Regulations 2008 that interest on loan should be allowed on the basis of actual rate of interest. However as CSPGCL has not submitted the details of actual interest rate for small hydro stations, the Commission approves the interest rate of 11.75% as per its order dated January 15, 2008 for the control period.

11.59 Based on above, the station-wise details of interest on loan cost for the control period as submitted by CSPGCL and as approved by Commission is given in Table 132.

Table 132: Station-wise Interest on Loan (Rs Cr) as submitted by CSPGCL & as approved by Commission

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
A. HTPS Korba West						
Opening GFA (A)	797	883	951	797	887	912
Normative Equity – Opening (B)	315	340	361	315	342	349
Gross Normative loan – Opening (A – B)	*482*	*543*	*590*	*482*	*545*	*563*
Cumulative repayment of Normative Loan upto PY	146.78	224.35	321.48	173.84	251.53	347.79
Net Normative loan – Opening	335.97	318.52	268.88	309.00	294.24	215.35
Increase/Decrease due to ACE during the Year (Loan part)	60.13	47.47	75.60	62.93	17.37	81.20
Repayments of Normative Loan during the year *	77.58	97.12	8.60	77.69	96.27	6.90
Net Normative loan – Closing	318.52	268.88	335.87	294.24	215.35	289.65
Average Normative Loan	327.25	293.70	302.37	301.62	254.80	252.50
Weighted average Rate of Interest of actual Loans	10.19%	9.75%	9.97%	10.05%	9.75%	9.97%
Interest on Normative loan	**33.36**	**28.63**	**30.14**	**30.31**	**24.84**	**25.17**
B. KTPS Korba East						
Opening GFA (A)	556	615	615	556	621	637
Normative Equity – Opening (B)	184	202	202	184	204	209
Gross Normative loan – Opening (A – B)	*372*	*413*	*413*	*372*	*417*	*428*
Cumulative repayment of Normative Loan upto PY	227.16	257.79	289.97	227.16	257.95	290.87
Net Normative loan – Opening	144.41	155.23	123.05	144.41	159.27	137.56
Increase/Decrease due to ACE during the Year (Loan part)	41.45	0.00	53.90	45.65	11.20	3.50
Repayments of Normative Loan during the year *	30.63	32.18	34.19	30.79	32.91	33.46
Net Normative loan – Closing	155.23	123.05	142.76	159.27	137.56	107.59
Average Normative Loan	149.82	139.14	132.90	151.84	148.41	122.57
Weighted average Rate of Interest of actual Loans	9.61%	8.75%	8.86%	9.61%	8.75%	8.86%
Interest on Normative loan	**14.39**	**12.17**	**11.78**	**14.59**	**12.98**	**10.86**
C. DSPM						
Opening GFA (A)	2151	2254	2255	2151	2254	2255
Normative Equity – Opening (B)	592	618	619	592	618	619
Gross Normative loan – Opening (A – B)	*1,559*	*1,636*	*1,636*	*1,559*	*1,636*	*1,636*
Cumulative repayment of Normative Loan upto PY	201.52	317.50	436.20	201.52	317.53	436.26
Net Normative loan – Opening	1,357.75	1,318.50	1,199.80	1,357.75	1,318.47	1,199.74
Increase/Decrease due to ACE during the Year (Loan part)	76.73	0.00	0.00	76.73	0.00	0.00
Repayments of Normative Loan during the year *	115.97	118.70	118.73	116.01	118.73	118.76
Net Normative loan – Closing	1,318.50	1,199.80	1,081.07	1,318.47	1,199.74	1,080.98
Average Normative Loan	1,338.13	1,259.15	1,140.44	1,338.11	1,259.10	1,140.36
Weighted average Rate of Interest of actual Loans	11.50%	11.50%	11.50%	11.50%	11.50%	11.50%
Interest on Normative loan	**153.88**	**144.80**	**131.15**	**153.88**	**144.80**	**131.14**
D. **Hasdeo Bango**						
Opening GFA (A)	111	111	111	111	111	111
Normative Equity – Opening (B)	46	46	46	46	46	46
Gross Normative loan – Opening (A – B)	*65*	*65*	*65*	*65*	*65*	*65*
Cumulative repayment of Normative Loan upto PY	24.72	27.15	29.59	24.72	27.15	29.58
Net Normative loan – Opening	40.14	37.71	35.52	40.14	37.78	35.35
Increase/Decrease due to ACE during the Year (Loan part)	0.00	0.25	0.00	0.07	0.00	0.00
Repayments of Normative Loan during the year *	2.43	2.43	2.44	2.43	2.43	2.43
Net Normative loan – Closing	37.71	35.52	33.08	37.78	35.35	32.92
Average Normative Loan	38.92	36.62	34.30	38.96	36.56	34.13
Weighted average Rate of Interest of actual Loans	9.30%	8.02%	8.00%	9.27%	8.00%	8.00%

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Interest on Normative loan	**3.62**	**2.94**	**2.74**	**3.61**	**2.93**	**2.73**
E. **Gangrel SHP**						
Opening GFA (A)	44	44	44	44	44	44
Normative Equity – Opening (B)	13	13	13	13	13	13
Gross Normative loan – Opening (A – B)	*31*	*31*	*31*	*31*	*31*	*31*
Cumulative repayment of Normative Loan upto PY	4.08	7.12	10.17	4.08	7.12	10.17
Net Normative loan – Opening	26.38	23.34	20.29	26.38	23.34	20.29
Increase/Decrease due to ACE during the Year (Loan part)	0.00	0.00	0.00	0.00	0.00	0.00
Repayments of Normative Loan during the year *	3.05	3.05	3.05	3.05	3.05	3.05
Net Normative loan – Closing	23.34	20.29	17.25	23.34	20.29	17.25
Average Normative Loan	24.86	21.81	18.77	24.86	21.81	18.77
Weighted average Rate of Interest of actual Loans	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Normative loan	**2.92**	**2.56**	**2.21**	**2.92**	**2.56**	**2.21**
F. **Sikasar SHP**						
Opening GFA (A)	31.22	31.48	31.48	31.22	31.46	31.46
Normative Equity – Opening (B)	9.37	9.44	9.44	9.37	9.44	9.44
Gross Normative loan – Opening (A – B)	*21.85*	*22.04*	*22.04*	*21.85*	*22.02*	*22.02*
Cumulative repayment of Normative Loan upto PY	2.86	5.06	7.26	2.86	5.06	7.26
Net Normative loan – Opening	18.99	16.98	14.77	18.99	16.96	14.76
Increase/Decrease due to ACE during the Year (Loan part)	0.18	0.00	0.00	0.17	0.00	0.00
Repayments of Normative Loan during the year *	2.19	2.20	2.20	2.19	2.20	2.20
Net Normative loan – Closing	16.98	14.77	12.57	16.96	14.76	12.56
Average Normative Loan	17.98	15.87	13.67	17.97	15.86	13.66
Weighted average Rate of Interest of actual Loans	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Normative loan	**2.11**	**1.87**	**1.61**	**2.11**	**1.86**	**1.60**
G. **Mini Micro KWB SHP**						
Opening GFA (A)	12.25	12.65	12.65	12.25	12.40	12.40
Normative Equity – Opening (B)	4.42	4.54	4.54	4.42	4.46	4.46
Gross Normative loan – Opening (A – B)	*7.83*	*8.11*	*8.11*	*7.83*	*7.94*	*7.94*
Cumulative repayment of Normative Loan upto PY	4.20	5.07	5.96	4.20	5.06	5.93
Net Normative loan – Opening	3.63	3.04	2.16	3.63	2.88	2.01
Increase/Decrease due to ACE during the Year (Loan part)	0.28	0.00	0.00	0.11	0.00	0.00
Repayments of Normative Loan during the year *	0.87	0.89	0.89	0.86	0.87	0.87
Net Normative loan – Closing	3.04	2.16	1.27	2.88	2.01	1.14
Average Normative Loan	3.34	2.60	1.71	3.26	2.44	1.57
Weighted average Rate of Interest of actual Loans	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Normative loan	**0.39**	**0.31**	**0.20**	**0.38**	**0.29**	**0.18**

Note: * Repayments during the year are taken equal to annual depreciation

Operation & Maintenance (O&M) Expenses

11.60 CSPGCL has projected the O&M expenses as per the CSERC's CSERC MYT Regulations, 2010. In case of HTPS Korba West, KTPS Korba East and Hasdeo Bango station, which have been in operation before April 1, 2005, CSPGCL has submitted station-wise details of actual employee costs, R&M expenses and A&G expenses for five years preceding the base year. Abnormal expenses such as incidental stores, pension and gratuity payments etc are reduced to arrive at net expenses for past years. These net expenses for past years are then normalised taking into account an escalation factor of 5.17% to bring them at par with FY 2008-09 values. The average of normalised O&M expenses for previous years has been escalated by 5.72% to arrive at O&M expenses for base year i.e. FY 2009-10.

11.61 CSPGCL has further increased the Base year O&M by 50% of average increase in employee costs in last five years preceding base year on the grounds of increase in salary due to VIth Pay Commission. Finally CSPGCL has projected the O&M costs for the control period by escalating the base year value by 5.72% p.a.

11.62 In case of DSPM Korba East Extension, CSPGCL has projected the O&M expenses as per the norms specified by the CERC Tariff Regulations for Generation and Transmission, 2009 as summarised in Table 133.

Table 133: CERC norms for O&M (Rs lakhs/MW) for stations achieving COD after March 31, 2005

Year of Operation	200/210/250 MW Sets	300/330/350 MW Sets	500 MW Sets	600& Above MW Sets
2009-10	18.20	16.00	13.00	11.70
2010-11	19.24	16.92	13.74	12.37
2011-12	20.34	17.88	14.53	13.08
2012-13	21.51	18.91	15.36	13.82
2013-14	22.74	19.99	16.24	14.62

11.63 Based on the above norms for 250 MW sets, CSPGCL has projected the normative expenses for DSPM for the control period.

11.64 In addition, CSPGCL has added the share of Holding company as per the revised transfer scheme (CSEB Transfer Scheme Rules, 31.3.2010) issued by the Govt. of Chhattisgarh in supersession of the scheme earlier notified vide notification dated 31.12.2008 and the Head Office expenses for each station in the O&M cost. This cost is also proposed to be escalated at 5.72% p.a.

11.65 In case of small hydro stations, CSPGCL has projected the normative O&M expenses as 2.5% of admitted capital cost of the project with annual escalation of 5% based on the norms for small hydro projects as per its NCE Regulations 2008.

11.66 The projected O&M expenses for thermal and hydro stations of CSPGCL for the control period have been summarised in Table 134.

Table 134: O&M expenses (Rs Cr) as projected by CSPGCL

Particulars	2010-11	2011-12	2012-13
A. HTPS Korba West			
Normative O&M Expenses	213	225	238
Share of holding co. expenses as per draft FRP and HO expenses	12	13	14
Total	**225**	**238**	**251**
B. KTPS Korba East			
Normative O&M Expenses	154	163	172
Share of holding co. expenses as per draft FRP and HO expenses	6	7	7
Total	**161**	**170**	**179**
C. DSPM Korba East Ext.			
Normative O&M Expenses	96	102	108
Share of holding company expenses as per draft FRP and Head Office expenses	7	8	8
Total	**103**	**109**	**116**
D. Hasdeo Bango			
Normative O&M Expenses	7.0	7.4	7.8

Particulars	2010-11	2011-12	2012-13
Share of holding co. expenses as per draft FRP and HO expenses	1.7	1.8	1.9
Total	**8.7**	**9.2**	**9.7**
E. Small hydro stations			
Gangrel	1.35	1.42	1.49
Sikasar	0.90	0.95	1.00
Mini Micro Korba	0.32	0.34	0.35

Commission's View

11.67 The Commission has estimated the O&M expenses for the base year for HTPS Korba West, KTPS Korba East and Hasdeo Bango station, on the basis of average of R&M, A&G and employee costs incurred during FY 2004-05 to FY 2008-09. The Commission has deducted abnormal expenses such as incidental stores, pension & gratuity payments, etc 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 based on the CSERC MYT Regulations, 2010.

11.68 The Commission has also factored in the increase in employee costs due to revision in wages as per VIth Pay Commission by increasing the base year O&M cost by 50% of average increase in employee costs during FY 2004-05 to FY 2008-09. The average O&M cost after factoring increase in employee cost for FY 2009-10 is then escalated by 5.72% p.a. to arrive at normative O&M cost for the control period.

11.69 In addition, the Commission has allowed the share of Holding company expenses as per the draft FRP and the plant-wise Head Office expenses as submitted by CSPGCL escalated by 5.72% p.a. for the control period. Further in case of HTPS, KTPS and Hasdeo Bango stations, the Commission has bifurcated the approved O&M expenses into R&M cost, employee cost and A&G cost in the ratio of actual expenses in FY 2008-09. This has been done so that CSPGCL does not ignore maintenance of its plants and under no condition do the consumers suffer from low generation on account of lack of plant maintenance. Thus the Commission directs CSPGCL to make judicious investment in proper maintenance of its plants so that they remain in good condition.

11.70 In case of DSPM Korba East Extension and small hydro stations, Commission accepts the methodology submitted by CSPGCL and has approved O&M expenditure on normative basis.

11.71 The approved O&M expenses for thermal and hydro stations for the control period have been summarised in Table 135.

Table 135: O&M expenses (Rs Cr) as approved by Commission

Particulars	2010-11	2011-12	2012-13
A. HTPS Korba West			
R&M cost	91	96	101
Employee cost	99	104	110
A&G cost	4	4	5
Total O&M Expenses	*194*	*205*	*216*
Share of holding co. expenses as per draft FRP and HO expenses	12	12	14
Total	**206**	**217**	**230**
B. KTPS Korba East			
R&M cost	47	50	53
Employee cost	89	95	100

Particulars	2010-11	2011-12	2012-13
A&G cost	4	5	5
Total O&M Expenses	*141*	*149*	*157*
Share of holding co. expenses as per draft FRP and HO expenses	6	7	7
Total	**147**	**156**	**164**
C. DSPM Korba East Ext.			
Normative O&M Expenses	96	102	108
Share of holding company expenses as per draft FRP and Head Office expenses	7	7	8
Total	**103**	**109**	**116**
D. Hasdeo Bango			
R&M cost	1.8	1.9	2.0
Employee cost	4.2	4.4	4.7
A&G cost	0.3	0.3	0.3
Total O&M Expenses	*6.3*	*6.7*	*7.1*
Share of holding co. expenses as per draft FRP and HO expenses	1.7	1.8	1.9
Total	**8.0**	**8.5**	**9.0**
E. Small hydro stations			
Gangrel	1.35	1.42	1.49
Sikasar	0.90	0.95	1.00
Mini Micro Korba	0.32	0.34	0.35

Contribution to Pension Fund

11.72 CSPGCL has submitted that it would contribute Rs.103.43 Cr annually to the pension fund during the MYT control period. The annual share of HTPS, KTPS, DSPM and Hasdeo Bango is projected to be Rs.45.71 Cr, Rs.23.95 Cr, Rs.27.21 Cr and Rs.6.53 Cr, respectively based on their installed capacity.

Commission's View

11.73 With regards to the terminal benefits, the actual contribution to the Pension Fund made in FY 2009-10 by all the successor companies was Rs 290 Cr. The Commission is of the opinion that contribution to the Fund should be reasonable and the Fund should be able to sustain itself through the revenue earned from judicious investment of the Fund. However, the Commission also recognises that no actual evaluation for the Fund has been carried out after the recommendations of the Sixth Pay Commission were announced and the requirement of the pension fund might increase when the effect of the Sixth Pay Commission is evaluated.

11.74 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.

11.75 The Commission would also like to make it clear 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.

CSPGCL's share in annual contribution to the pension fund, on the basis of actual employees till FY 2009-10, has been estimated to be Rs.53.31 Cr. This cost has been allocated to HTPS, KTPS, DSPM and Hasdeo Bango stations on the basis of their installed capacity. However, share of DSPM to fund i.e. Rs.14.03 Cr (Rs.53.31 Cr * 500 MW / 1900 MW) has not been accounted separately as the normative O&M expenses take into account expenses such as incidental stores, terminal benefits, etc. The station wise allocation of the contribution to the Pension Fund done by the Commission is only indicative and CSPGCL may decide the station wise allocation at its own end.Table 136 summarises the annual contribution to pension fund as submitted by CSPGCL and as approved by Commission.

Table 136: Annual Contribution to Pension Fund (Rs Cr) as submitted by CSPGCL & as approved by Commission

Particulars	Proposed by CSPGCL	Approved by Commission
	2010-11 to 2012-13	2010-11 to 2012-13
HTPS Korba West	45.71	23.57
KTPS Korba East	23.95	12.35
DSPM Korba East (Extn)	27.21	0.00 *
Hasdeo Bango HPS	6.53	3.37
Total	**103.40**	**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

11.76 CSPGCL has projected working capital requirements for its thermal and Hasdeo Bango station as per the CSERC MYT Regulations, 2010. The working capital requirements for small hydro stations are as per norms prescribed in this regards as per NCE Regulations 2008.

11.77 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

11.78 The Commission observes that the normative working capital requirements have been estimated in accordance with CSERC MYT Regulations, 2010 for thermal and Hasdeo Bango stations and in accordance to NCE Regulations 2008 for small hydro stations. Accordingly, the Commission accepts the methodology adopted by CSPGCL for projecting the working capital requirements for the control period.

11.79 The normative rate of interest on working capital for the thermal and Hasdeo Bango station is taken as per the short-term PLR of SBI as on April 1, 2009 i.e. 11.75% in accordance to the MYT Regulations. However in case of small hydro projects, the Regulation 6.9 of the NCE Regulations 2008, states:

*"that if no loan is taken for working capital, the interest will be allowed for tariff determination at the rate equal to short-term PLR of SBI on the **1st day of April of the year in which the generating station is declared under commercial operation."***

11.80 The SHP at Gangrel and Sikasar were commissioned during 2005-06 and 2006-07 respectively while the second unit of Mini Micro Korba SHP was commissioned during 2009-10. The short-term SBI PLR applicable for Gangrel and Sikasar is 10.75% while for Mini Micro Korba is 11.75% depending on the COD of each plant.

11.81 Based on the above, the interest on working capital as proposed by CSPGCL and as approved by Commission have been summarised in Table 137

Table 137: Station-wise interest on working capital (Rs Cr) as submitted by CSPGCL & as approved by Commission

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
A. HTPS Korba West						
Cost of Coal for 1.5 months	45.68	45.81	45.68	53.15	48.87	48.74
Cost of Main Secondary Fuel Oil for 2 months	3.36	3.37	3.36	3.72	3.37	3.36
O & M Expenses for 1 month	18.74	19.81	20.94	17.14	18.12	19.16
Maintenance Spares @ 20% of O&M	44.97	47.54	50.26	41.14	43.49	45.98
Receivables for 2 months	142.72	148.44	136.73	145.70	144.33	131.00
Total Working Capital	**255.47**	**264.97**	**256.97**	**260.85**	**258.19**	**248.23**
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Working Capital	**30.02**	**31.13**	**30.19**	**30.65**	**30.34**	**29.17**
B. KTPS Korba East						
Cost of Coal for 1.5 months	28.26	28.19	27.98	28.90	30.12	29.89
Cost of Main Secondary Fuel Oil for 2 months	3.76	3.62	3.36	3.66	3.62	3.36
O & M Expenses for 1 month	13.38	14.15	14.96	12.26	12.96	13.70
Maintenance Spares @ 20% of O&M	32.12	33.96	35.90	29.42	31.10	32.88
Receivables for 2 months	88.74	90.29	92.10	85.27	88.90	89.26
Total Working Capital	**166.26**	**170.21**	**174.30**	**159.51**	**166.69**	**169.09**
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Working Capital	**19.54**	**20.00**	**20.48**	**18.74**	**19.59**	**19.87**
C. DSPM						
Cost of Coal for 1.5 months	40.90	41.01	40.90	48.29	43.46	43.34
Cost of Main Secondary Fuel Oil for 2 months	2.01	2.02	2.01	2.27	2.02	2.01
O & M Expenses for 1 month	8.62	9.11	9.63	7.45	7.94	8.46
Maintenance Spares @ 20% of O&M	20.68	21.86	23.12	17.87	19.06	20.31
Receivables for 2 months	132.85	133.37	132.05	136.02	131.15	129.30
Total Working Capital	**205.05**	**207.37**	**207.72**	**211.91**	**203.63**	**203.43**
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Working Capital	**24.09**	**24.37**	**24.41**	**24.90**	**23.93**	**23.90**
D. **Hasdeo Bango**						
O & M Expenses for 1 month	0.73	0.77	0.81	0.67	0.71	0.75
Maintenance Spares @ 15% of O&M	1.31	1.38	1.46	1.21	1.28	1.35
Receivables for 2 months	5.17	5.15	5.21	4.52	4.48	4.53
Total Working Capital	**7.21**	**7.30**	**7.48**	**6.39**	**6.47**	**6.63**
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Working Capital	**0.85**	**0.86**	**0.88**	**0.75**	**0.76**	**0.78**
E. **Gangrel SHP**						
O & M Expenses for 1 month	0.11	0.12	0.12	0.11	0.12	0.12
Norm. Maintenance Spares @ 1% of Capital cost escalated @ 6% p.a.	0.57	0.60	0.64	0.57	0.60	0.64
Receivables for 2 months	1.70	1.65	1.61	1.61	1.56	1.51
Total Working Capital	**2.38**	**2.37**	**2.37**	**2.29**	**2.28**	**2.28**
Rate of Interest	11.75%	11.75%	11.75%	10.75%	10.75%	10.75%
Interest on Working Capital	**0.28**	**0.28**	**0.28**	**0.25**	**0.25**	**0.24**
F. **Sikasar SHP**						
O & M Expenses for 1 month	0.08	0.08	0.08	0.08	0.08	0.08
Norm. Maintenance Spares @ 1% of Capital cost escalated @ 6% p.a.	0.38	0.40	0.42	0.38	0.40	0.42
Receivables for 2 months	1.21	1.18	1.15	1.15	1.12	1.08
Total Working Capital	**1.66**	**1.66**	**1.65**	**1.60**	**1.59**	**1.59**

Particulars	Proposed by CSPGCL			Approved by Commission		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Rate of Interest	11.75%	11.75%	11.75%	10.75%	10.75%	10.75%
Interest on Working Capital	**0.20**	**0.20**	**0.19**	**0.17**	**0.17**	**0.17**
G. **Mini Micro KWB SHP**						
O & M Expenses for 1 month	0.03	0.03	0.03	0.03	0.03	0.03
Norm. Maintenance Spares @ 1% of Capital cost escalated @ 6% p.a.	0.13	0.14	0.15	0.13	0.14	0.15
Receivables for 2 months	0.42	0.42	0.40	0.39	0.38	0.36
Total Working Capital	**0.58**	**0.58**	**0.58**	**0.55**	**0.54**	**0.54**
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Working Capital	**0.07**	**0.07**	**0.07**	**0.06**	**0.06**	**0.06**

Non-Tariff Income

11.82 CSPGCL has projected an annual non-tariff income (NTI) of Rs.9.90 Cr for CSPGCL for the MYT period from FY 2010-11 to FY 2012-13.

Commission's View

11.83 The NTI projected by CSPGCL is low keeping in mind the past trends. In FY 2009-10, NTI was Rs.27.37 Cr for CSPGCL as whole as provided in provisional accounts. Further the NTI in FY 2009-10 is on account of profit on sale of scrap of Rs.11.78 Cr and other income of Rs.15.58 Cr. The Commission has noted that the profit on sale of scrap is one-time receivable and would accrue only at the end of control period when old assets for HTPS would be depreciated. Thus the Commission approves Rs.15.58 Cr as the total NTI for FY 2010-11 and FY 2011-12 and Rs.27.37 Cr (including provision for sale of scrap) for FY 2012-13. The station-wise details of NTI as submitted by CSPGCL and approved by the Commission have been summarised in Table 138.

Table 138: Non-tariff Income (Rs Cr) as submitted by CSPGCL & as approved by Commission

Particulars	MYT Petition			Commission's Analysis		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
HTPS Korba West	4.60	4.60	4.60	7.35	7.35	12.91
KTPS Korba East	2.75	2.75	2.75	3.85	3.85	6.76
DSPM Korba East (Extn)	2.55	2.55	2.55	4.38	4.38	7.69
Total	**9.90**	**9.90**	**9.90**	**15.58**	**15.58**	**27.37**

SLDC Charges

11.84 CSPGCL has not projected levy of SLDC charges on it during the MYT period as per the CSERC's (Fees and charges of SLDC & other related matters) Regulations 2010 (hereafter referred to as SLDC Regulations 2010).

Commission's View

11.85 CSPGCL is required to pay the SLDC charges to SLDC in accordance with the CSERC (Fees and charges of SLDC and other related matters) Regulations, 2010. The estimated payment to be made in this regard is mentioned in Table 139.

Table 139: Computation of SLDC (SOC+MOC) Charges (in Rs Cr) during MYT period

Particulars	2010-11	2011-12	2012-13
Approved ARR for SLDC during MYT	*10.42*	*11.78*	*13.48*
SLDC (SOC + MOC) Charges estimated to be recovered from CSPGCL	4.85	5.48	6.27

Annual Revenue Requirement for MYT Period

11.86 Based on various elements of expenses and revenue, as discussed above, the summary of ARR of CSPGCL for the MYT period from FY 2010-11 to FY 2012-13 as projected by CSPGCL and as approved by the Commission has been summarized in

11.87 Table 140.

Table 140: Annual Revenue Requirement (Rs Cr) of CSPGCL as submitted by CSPGCL & as approved by Commission for MYT Period

Sl. No.	Particulars	MYT Petition			Commission's Analysis		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1.	**Annual Fixed Cost**						
1.1	Depreciation	232.72	256.57	170.10	233.01	256.46	167.67
1.2	Interest on Loan & Finance charges	210.69	193.27	179.82	207.81	190.26	173.90
1.3	Return on Equity	232.23	241.04	248.49	231.45	239.75	244.55
1.4	Interest on Working Capital	75.04	76.90	76.50	75.52	75.08	74.19
1.5	O&M Expenses	500.12	528.71	558.96	466.79	493.47	521.71
1.6	Secondary fuel oil cost	55.75	54.96	53.36	58.99	54.96	53.36
1.7	Contribution to Pension Fund	103.40	103.40	103.40	39.28	39.28	39.28
1.8	Misc. Expenses (SLDC charges)	0.00	0.00	0.00	4.85	5.48	6.27
1.9	Special allowance (if applicable)	0.00	0.00	0.00	0.00	0.00	0.00
1.10	Less: Non Tariff Income	9.90	9.90	9.90	15.58	15.58	27.37
	Total Annual Fixed Cost *	**1405.90**	**1450.66**	**1386.26**	**1303.16**	**1344.86**	**1259.07**
2.	**Annual Energy Charges**						
2.1	Fuel charges at NPAF	844.92	846.50	843.51	947.58	901.12	897.91
	Total Energy Charges **	**844.92**	**846.50**	**843.51**	**947.58**	**901.12**	**897.91**
	Energy Charge Rate ex-bus (Rs/kWh)	*0.707*	*0.706*	*0.705*	*0.741*	*0.752*	*0.750*
	Aggregate Revenue Requirement (ARR)	**2251**	**2297**	**2230**	**2251**	**2246**	**2157**
	Scheduled Net Generation (MU)	11943	11985	11963	12783	11986	11964
	Generation Tariff (Rs/kWh)	***1.88***	***1.92***	***1.86***	***1.76***	***1.87***	***1.80***

Note: * includes annual fixed cost for Kawardha cogeneration station based on annual capacity charges as per CSERC's order dated January 15, 2008;
** includes energy cost for Kawardha cogeneration station based on energy charges as per CSERC's order dated April 15, 2010.

Statutory Charges

11.88 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 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. The prevailing rates of such duties being charged to CSPGCL by the authorities are as submitted in Table 142.

Table 141: Prevailing rates of Statutory Charges

Particulars	Prevailing rate	Remarks
ED on auxiliary consumption	25.6 Paise / Unit	
Cess on auxiliary consumption	10 Paise / Unit	Rate revised from July 2010
Additional ED on sent out energy	2 Paise / Unit	
Water charges for hydro plants	60 Paise / Unit of Gross Generation	Annual increase of 2 Paise/unit. Rates revised from May 2010

11.89 CSPGCL has submitted that the above taxes / rates are based on prevailing demands raised by authorities however these are not the limiting values. Any modification (increase/decrease) in statutory taxes should be a pass through to the beneficiary (CSPDCL) on actual basis. The charges will be recoverable as part of regular/ supplementary energy bill on monthly basis subject to adjustment as per actual on year-end basis.

Commission's View

11.90 The ED and cess on auxiliary consumption, additional ED on sent out energy and water charges are state government levies, hence the Commission approves these charges to be passed through in ARR during MYT period.

11.91 Based on the prevailing rates of these charges and the approved auxiliary consumption, net sent out generation from all stations and gross generation from hydro stations, the Commission has approved the total liability for statutory charges for the control period as summarised in Table 142.

Table 142: Statutory charges (Rs Cr) as approved by Commission

Particulars	2010-11	2011-12	2012-13
ED on auxiliary consumption	31.13	30.76	30.66
Cess on auxiliary consumption	10.64	12.02	11.98
Additional ED on sent out energy	25.57	23.97	23.93
Water charges for hydro plants *	9.65	23.03	26.47
Total statutory charges	**76.98**	**89.77**	**93.04**

*Note: Water charges are not applicable for Mini Micro Korba SHP

11.92 Table 143 summarises the annual revenue requirement of CSPGCL after incorporating statutory charges to be recovered from beneficiary i.e. CSPDCL.

Table 143: Annual Revenue Requirement (Rs Cr) of CSPGCL after incorporating statutory charges

Particulars	MYT Petition			Commission's Analysis		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
ARR w/o statutory charges	2251	2297	2230	2251	2246	2157
Add: Statutory charges	84.24	89.77	93.04	76.98	89.77	93.04
Net ARR (after statutory charges)	**2335**	**2387**	**2323**	**2328**	**2336**	**2250**
Scheduled Net Generation (MU)	11943	11985	11963	12783	11986	11964
Generation Tariff with statutory charges to be recovered from CSPDCL (Rs/kWh)	***1.96***	***1.99***	***1.94***	***1.82***	***1.95***	***1.88***

Treatment of Revenue Gap/Surplus for Previous years

11.93 The approved revenue gap/surplus for previous years upto FY 2008-09 has then been allocated to CSPGCL, CSPTCL and CSPDCL in the ratio of 35:5:60. The Commission has also conducted provisional true for the successor companies for FY 2009-10 as has been discussed in the section dealing with truing up for past years.

11.94 The allocated revenue surplus to CSPGCL on account of truing up till FY 2009-10 of Rs.522 Cr has been adjusted in the approved ARR for CSPGCL for FY 2010-11. The Commission has estimated that at existing generation tariff of Rs.1.44/kWh, CSPGCL has an estimated revenue deficit of Rs.487 Cr in FY 2010-11. After adjusting the revenue surplus of previous years the remaining surplus for FY 2010-11 would be Rs.35 Cr. As the FY 2010-11 has been completed, the Commission will retain the existing tariff for the year @ Rs.1.44/kWh. The remaining surplus of Rs.35 Cr will be adjusted in the ARR for FY 2011-12 as given in billing mechanism as given below. After adjustment of previous years surplus, the adjusted tariff for FY 2011-12 works out to be Rs.1.92/kWh. The adjusted ARR and resultant tariff after adjusting the revenue surplus of previous years for the MYT period as approved by Commission has been summarized in Table 144.

Table 144: Adjusted ARR of CSPGCL for MYT period as approved by Commission

Sl. No.	Particulars	*Units*	2010-11	2011-12	2012-13
A	Approved ARR	*Rs Cr*	2328	2336	2250
B	Scheduled Generation	*MU*	12783	11986	11964
C	Prevailing Generation Tariff (Rs/Kwh)- as per Previous Order	*Rs/kWh*	1.44		
D	Recovery in FY 2010-11 as per prevailing tariff (D = B*C/10)	*Rs Cr*	1841		
E	Deficit for FY 2010-11 (E = D – A)	*Rs Cr*	-487		
F	Surplus/(Deficit) carried forward from PY	*Rs Cr*	522		
G	Surplus/(Deficit) carried forward to FY 2011-12 (G = E + F)	*Rs Cr*	35		
H	**Adjusted ARR**	***Rs Cr***	**1841**	**2301**	**2250**
I	***Approved Generation Tariff (after adjustment)***	***Rs/kWh***	***1.44***	***1.92***	***1.88***

Station-wise ARR for thermal stations

11.95 The summary of station-wise ARR and generation tariff for thermal stations as proposed by CSPGCL and approved by Commission is presented below.

A) HTPS Korba West

Table 145: ARR for HTPS (Rs Cr) as submitted by CSPGCL & approved by Commission

Sl. No.	Particulars	CSPGCL's Submission			Commission's Analysis		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	***Annual Capacity (Fixed) Charges***						
1.1	Depreciation	77.58	97.12	8.60	77.69	96.27	6.90
1.2	Interest on Loan and Finance charges	33.36	28.63	30.14	30.31	24.84	25.17
1.3	Return on Equity	63.38	67.85	72.95	63.51	66.84	70.93
1.4	Interest on Working Capital	30.02	31.13	30.19	30.65	30.34	29.17
1.5	O & M Expenses	224.84	237.70	251.29	205.68	217.45	229.88
1.6	Secondary fuel oil cost	20.59	20.65	20.59	22.81	20.65	20.59
1.7	Contribution to Pension Fund	45.71	45.71	45.71	23.57	23.57	23.57
1.8	Less - Non Tariff Income	4.60	4.60	4.60	7.35	7.35	12.91
	ANNUAL CAPACITY CHARGES	**490.88**	**524.19**	**454.89**	**446.82**	**472.54**	**393.24**
2	***Energy (Fuel) Charge***						
2.1	Fuel charges at NPAF	365.47	366.47	365.47	425.20	390.98	389.92

Sl. No.	Particulars	CSPGCL's Submission			Commission's Analysis		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
3	**AGGREGATE REVENUE REQUIREMENT**	**856.34**	**890.66**	**820.35**	**872.03**	**863.53**	**783.15**
4	Scheduled Generation as per est. PLF (MU)	5491	5506	5491	6103	5506	5491
5	**Average Cost of Energy (fixed+fuel) in (Rs/Unit)**	***1.560***	***1.618***	***1.494***	***1.429***	***1.568***	***1.426***

B) KTPS Korba East

Table 146: ARR for KTPS (Rs Cr) as submitted by CSPGCL & approved by Commission

Sl. No.	Particulars	CSPGCL's Submission			Commission's Analysis		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	***Annual Capacity (Fixed) Charges***						
1.1	Depreciation	30.63	32.18	34.19	30.79	32.91	33.46
1.2	Interest on Loan and Finance charges	14.39	12.17	11.78	14.59	12.98	10.86
1.3	Return on Equity	37.43	39.15	41.38	37.60	39.96	40.57
1.4	Interest on Working Capital	19.54	20.00	20.48	18.72	19.56	19.84
1.5	O & M Expenses	160.60	169.78	179.50	147.09	155.51	164.40
1.6	Secondary fuel oil cost	22.61	21.73	20.23	22.00	21.73	20.23
1.7	Contribution to Pension Fund	23.95	23.95	23.95	12.35	12.35	12.35
1.8	Less - Non Tariff Income	2.75	2.75	2.75	3.85	3.85	6.76
	ANNUAL CAPACITY CHARGES	**306.39**	**316.21**	**328.75**	**279.29**	**291.15**	**294.94**
2	***Energy (Fuel) Charge***						
2.1	Fuel charges at NPAF	226.05	225.54	223.84	231.21	240.94	239.11
3	**AGGREGATE REVENUE REQUIREMENT**	**532.44**	**541.76**	**552.59**	**510.50**	**532.09**	**534.06**
4	Scheduled Generation as per est. PLF (MU)	2694	2711	2714	2617	2711	2714
5	**Generation Cost (fixed+fuel) in (Rs/Unit)**	***1.977***	***1.998***	***2.036***	***1.950***	***1.962***	***1.968***

C) DSPM Korba East (Ext.)

Table 147: ARR for DSPM (Rs Cr) as submitted by CSPGCL & approved by Commission

Sl. No.	Particulars	CSPGCL's Submission			Commission's Analysis		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	***Annual Capacity (Fixed) Charges***						
1.1	Depreciation	115.97	118.70	118.73	116.01	118.73	118.76
1.2	Interest on Loan and Finance charges	153.88	144.80	131.15	153.88	144.80	131.14
1.3	Return on Equity	117.13	119.74	119.83	117.13	119.74	119.83
1.4	Interest on Working Capital	24.09	24.37	24.41	24.87	23.90	23.87
1.5	O & M Expenses	103.39	109.31	115.59	103.39	109.31	115.59
1.6	Secondary fuel oil cost	12.55	12.58	12.55	14.18	12.58	12.55
1.7	Contribution to Pension Fund	27.21	27.21	27.21	0.00*	0.00*	0.00*
1.8	Less - Non Tariff Income	2.55	2.55	2.55	4.38	4.38	7.69
	ANNUAL CAPACITY CHARGES	**551.69**	**554.16**	**546.92**	**525.09**	**524.67**	**514.05**
2	***Energy (Fuel) Charge***						
2.1	Fuel charges at NPAF	245.40	246.07	245.40	289.74	260.78	260.07

Sl. No.	Particulars	CSPGCL's Submission			Commission's Analysis		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
3	**AGGREGATE REVENUE REQUIREMENT**	**797.09**	**800.22**	**792.31**	**814.83**	**785.45**	**774.12**
4	Scheduled Generation as per est. PLF (MU)	3388	3397	3388	3886	3397	3388
5	**Generation cost (fixed+fuel) in (Rs/Unit)**	***2.353***	***2.356***	***2.339***	***2.097***	***2.312***	***2.285***

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.

ARR for Hydro Stations

Table 148: ARR for Hydro stations (Rs Cr) as submitted by CSPGCL & approved by Commission

Sl. No.	Particulars	CSPGCL's Submission			Commission's Analysis		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	***Annual Capacity (Fixed) Charges***						
1.1	Depreciation	8.54	8.57	8.58	8.53	8.55	8.55
1.2	Interest on Loan and Finance charges	9.05	7.67	6.76	9.03	7.64	6.73
1.3	Return on Equity	14.28	14.31	14.32	13.21	13.22	13.22
1.4	Interest on Working Capital	1.39	1.40	1.42	1.23	1.23	1.25
1.5	O & M Expenses	11.29	11.92	12.58	10.62	11.21	11.83
1.6	Contribution to Pension Fund	6.53	6.53	6.53	3.37	3.37	3.37
1.7	Less - Non Tariff Income	0.00	0.00	0.00	0.00	0.00	0.00
	ANNUAL CAPACITY CHARGES	**51.08**	**50.41**	**50.19**	**45.98**	**45.22**	**44.94**
2	Scheduled Generation as per est. PLF (MU)	335	336	335	170	337	337
3	**Generation cost in (Rs/Unit)**	***1.52***	***1.50***	***1.50***	***2.70***	***1.34***	***1.33***

ARR for Kawardha cogeneration station

11.96 In case of Kawardha cogeneration station, as no provision has been made in the CSERC MYT Regulations, 2010, **the tariff approved by Commission for biomass projects in its previous orders dated January 15, 2008 and April 15, 2010 will be applicable**. 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 the MYT period for the cogeneration plant has been summarized in Table 149.

Table 149: ARR for Kawardha Co gen (Rs Cr) as submitted by CSPGCL & approved by Commission

Sl. No.	Particulars	CSPGCL's Submission			Commission's Analysis		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	Annual Capacity (Fixed) Charges	5.85	5.70	5.51	1.04	5.70	5.51
2	Fuel charges at NPAF	8.01	8.42	8.82	1.42	8.42	8.82
	ARR	**13.87**	**14.12**	**14.32**	**2.46**	**14.12**	**14.32**
	Fixed cost per unit as per CSERC's Order dt. 15.01.08	1.68	1.63	1.58	1.68	1.63	1.58
	Variable cost per unit as per CSERC's Order dt. 15.04.10	2.30	2.41	2.53	2.30	2.41	2.53

Intra-state ABT Mechanism

11.97 The Commission enquired about the readiness of CSPGCL in implementing Intra-state Availability Based Tariff (ABT) mechanism from the Generation Company. CSPGCL submitted that for monitoring of the generation units of CSPGCL as per ABT regime, it has ordered the ABT monitoring system and it is likely to be commissioned by end of May 2011. It was also conveyed to the Commission that the mock exercise for ABT regime can begin by July 2011. CSPGCL has further added that the estimates for procurement of ABT energy meters for commercial/billing purpose have been started and installation is expected to be over by the end of FY 2011-12 i.e. March 2012.

Billing mechanism for FY 2011-12

11.98 As per the CSERC MYT Regulations, 2010, in case of thermal & hydro generating station, the capacity charge and energy charge payable for a station for a calendar month has to be calculated in accordance with the formulae specified in Regulation 28 of the CSERC MYT Regulations, 2010 when the intrastate ABT mechanism becomes operative in the state.

11.99 However it is pertinent to note that the ABT mechanism for billing is being introduced for the first time. The CSPGCL has submitted that it may carry out mock trial run for billing in capacity and energy charges from July 1, 2011 onwards. The Regulation 55 of MYT Regulation specifies that in case of difficulties the Commission may allow a trial run for a period to be specified in the Tariff Order. Accordingly the Commission directs that mock exercise on billing modalities on the basis of the methodology specified in the CSERC MYT Regulations, 2010 shall commence from July 1, 2011 onwards upto March 31, 2012. The SLDC shall also carryout weekly mock billing for UI in respect of generating stations of CSPGCL from July 1, 2011 onwards upto March 31, 2012.

11.100 It is also to be noted that as per Regulation 55 of the CSERC MYT Regulations, 2010, during the period of this trial run the commercial settlement will be based on existing arrangement or as specified by the Commission in the tariff order.

11.101 Accordingly, the Commission directs that the commercial settlement for the period April 2011-March 2012 shall be billed on single part tariff. The Commission has computed generating station-wise single part tariff based on estimated PLF, therefore the bills shall be raised generating station-wise by the generating company. The payment shall be made by the CSPDCL to the generating company on the basis of actual energy supplied by the generating station of the CSPGCL. The single part tariff for all the power stations excluding Kawardha Co generation plant of CSPGCL is given in the following table. However for the Kawardha Co generation plant billing shall be done as per order dated January 15, 2008 (passed in P No 7 of 2005) & April 15, 2010 (passed in P No 25 of 2009) and subsequent order(s) of the Commission if any. However ED, cess, SLDC and water charges only for hydel stations are not included in these rates, which shall be paid at actual by CSPDCL to CSPGCL.

Sl. No.	Power Station	Rs/kWh
1	HTPS-Korba West	1.568
2	KTPS-Korba East	1.962

Sl. No.	Power Station	Rs/kWh
3	DSPM	2.312
4	Hasdev Bango	0.990
5	Gangrel SHP	2.506
6	Sikasar SHP	3.121
7	Mini Micro KWB SHP	3.184

11.102 Also it should be noted that the billing for small hydro shall also be based on single-part tariff, while that for co-generation station shall be as per the existing two-part tariff as per CSERC's orders dated January 15, 2008 and April 15, 2010.

11.103 Further, any variation (under/excess recovery) in the fuel cost (including primary and secondary fuel) for thermal generating stations as compared to the fuel cost considered in the MYT order during the period April 2011-March 2012 shall be reviewed and trued up during the truing up exercise in next tariff order.

11.104 Also any variation in actual energy supplied by CSPGCL on account of change in estimated PLF and the resultant under/excess recovery from beneficiary would be adjusted during truing up for the control period.

11.105 Further, as stated above, the revenue surplus of Rs.35 Cr in FY 2010-11 has to be adjusted through billing for FY 2011-12. This amount would be deducted from the station wise monthly bills presented by CSPGCL to CSPDCL in FY 2011-12. CSPGCL shall declare the plant wise apportionment of Rs. 35 Cr in advance to CSPDCL.

Billing mechanism during mock exercise

11.106 The notional billing of fixed cost and energy cost would be done station-wise and in accordance with the CSERC MYT Regulations, 2010 during the mock exercise from July 1, 2011 to March 31, 2012 as given below:

A) Annual Capacity Charge Rate

11.107 In case of thermal generating stations, Commission has estimated the Annual Capacity Rate as per the following formulas given in the CSERC MYT Regulations, 2010:

- *Stations for less than 10 years of operations:*
  ACR = AFC x (NDM / NDY) x (PAFM / NAPAF)
- *Stations for more than 10 years of operations:*
  ACR = AFC x (NDM / NDY) x (0.5 + 0.5 x PAFM / NAPAF)

Where,

AFC = Annual Fixed cost

NDM = No. of days in months

NDY = No. of days in year

PAFM = Plant availability factor achieved during the month, in percent:

PAFY = Plant availability factor achieved during the year, in percent;

11.108 In case of (large) hydro generating stations, Commission has estimated the annual capacity rate as per the following formula:

AFC x 0.5 x NDM / NDY x (PAFM / NAPAF) (in Rupees) Where,

AFC = Annual fixed cost specified for the year, in Rupees

NAPAF = Normative plant availability factor in percentage

NDM = Number of days in the month

NDY = Number of days in the year

PAFM = Plant availability factor achieved during the month, in percentage

11.109 Further in case of Kawardha cogeneration project, the Commission has approved the annual capacity charge rate as per its order dated January 15, 2008.

11.110 Table 150 summarises the annual capacity charge rate for thermal, Hasdeo Bango and Kawardha cogeneration station for the MYT control period as determined by the Commission.

Table 150: Annual capacity charge rate as approved by Commission

Sl. No.	Name of Plant	Units	2010-11	2011-12	2012-13
1	HTPS Korba West	Rs Cr/month	36.80	38.94	32.55
2	KTPS Korba East	Rs Cr/month	23.05	23.97	24.36
3	DSPM Korba East (Extn.)	Rs Cr/month	43.27	43.13	42.39
4	Hasdeo Bango	Rs Cr/month	2.23	2.20	2.24

B) *Energy Charge Rate (Rs/kWh)*

11.111 In case of the thermal stations, the Commission has estimated the energy charge rate as per the formula approved in MYT Regulations as given below:

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

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Gross calorific value of primary fuel as fired, in kCal per kg

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

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

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

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre

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

11.112 Based on the above, the Commission has estimated the station-wise ECR for the thermal stations for the control period as summarised in Table 151:

Table 151: Computation of ECR (Rs/kWh) for thermal stations as approved by Commission

Particulars	Units	HTPS Korba West			KTPS Korba East			DSPM Korba East (Extn)		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
GHR	kCal/kWh	2650	2650	2650	2,975	2,950	2,925	2500	2500	2500
SFC	ml/kWh	1.00	1.00	1.00	2.25	2.15	2.00	1.00	1.00	1.00
CVSF	kCal/ml	10000	10000	10000	10000	10000	10000	10000	10000	10000
CVPF	kCal/kg	3591	3591	3591	3171	3171	3171	3455	3455	3455

Particulars	Units	HTPS Korba West			KTPS Korba East			DSPM Korba East (Extn)		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
LPPF (incl. Clean Energy Cess)	**Rs/MT**	**865.18**	**878.96**	**878.96**	**848.83**	**862.61**	**862.61**	**955.55**	**969.33**	**969.33**
Aux	%	8.70%	9.00%	9.00%	10.53%	10.35%	10.30%	7.64%	9.00%	9.00%
ECR	**Rs/kWh**	**0.697**	**0.710**	**0.710**	**0.883**	**0.889**	**0.881**	**0.746**	**0.768**	**0.768**

11.113 In case of Kawardha co-generation plant, Commission has approved the energy rate for the control period as per its order dated April 15, 2010. The approved variable charges for Kawardha cogeneration plant is as summarised in Table 152.

Table 152: ECR (Rs/kWh) for Kawardha cogeneration project as approved by Commission

Particulars	Units	2010-11	2011-12	2012-13
Variable cost per unit as per Order Dt. April 15, 2010	Rs./KWh	2.30	2.41	2.53

Date of applicability of tariff

11.114 In this tariff order, the Commission has created a regulatory asset of Rs. 343 Cr from the revenue gap of CSPDCL. Due to this the distribution utility shall not be able to recover the full cost as per the ARR resulting in working capital and cash flows issues. However to give relief to some extent, the Commission has decided to implement the tariff for CSPGCL 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.

12 CHHATTISGARH STATE POWER TRANSMISSION COMPANY LIMITED – DETERMINATION OF ARR AND TRANSMISSION CHARGES FOR MYT CONTROL PERIOD FY2010-11 TO FY2012-13

12.1 This section contains a summary of the ARR and MYT Petition for the period FY 2010-11 to FY 2012-13 as submitted by Chhattisgarh State Power Transmission Company Limited (CSPTCL) with the Commission and the analysis by the Commission.

About CSPTCL

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

12.3 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

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

Table 153: Balance sheet for CSPTCL (Rs Cr) as on January 1, 2009

Particulars	Amount
Assets	
Gross Block	892.82
Less : Accumulated Depreciation	236.41
Net Fixed Assets	656.41
CWIP	373.04
Assets not in use	
Deferred Cost	
Intangible Assets	
Investment	14.31
Investment in Subsidiary Company	
Net Current Assets	
Stock	8.54
Receivable against supply of power	
Cash & Bank	0.19
Inter Company Receivable/Payable	(10.56)
Loans &Advances	128.54

Sundry Receivable	1.28
Total Current Assets	127.99
Less :	
Total Current Liabilities	
Security Deposits Consumers	
Other Current Liabilities	173.59
Total Current Liabilities	173.59
Net Current Assets	(45.60)
Subsidy Receivable from Government	41.54
TOTAL ASSETS	1,039.69
Liabilities	
Borrowings of Working Capital	
Payments due on Capital Liabilities	56.34
Capital Liabilities	235.80
Funds from State Government	
(A) Loan	
(B) Equity Capital	
Total funds from State Govt.	92.44
Contributions, Grants and Subsidies towards Cost of Capital Assets	
Reserves and Reserve Funds	29.60
Surplus (+ Equity Adjustment)	625.51
Sub Total Shareholder's Equity	*655.11*
TOTAL LIABILITIES	1,039.69

Transmission Network

12.5 In line with the growth in generation capacity and distribution network, the transmission network also needs to be augmented to maintain the system availability and stability, voltage profile and to reduce loss levels. The current transmission network of the CSPTCL as presented by the petitioner is given in Table 154 and Table 156:

Table 154: Transmission Network

Voltage (KV)	Unit	FY 1999-00	FY 2009-10	Growth
400	Ckt kms.	277	277	0%
220	Ckt kms.	1,594	2,923	83%
132	Ckt kms.	2,974	4,304	45%
HVDC	Ckt kms.	360	360	0%
Total	Ckt kms.	5,205	7,864	

Table 155: Growth of Transmission Assets- Sub-stations

Voltage (KV)	Unit	FY 1999-00	FY 2009-10	Number of bays (2010)	Growth (%)
400 kV	No.	1	1	11	0%
220 kV	No.	5	14	107	180%
132 kV	No.	20	50	390	150%
HVDC	No.	1	1	-	0%
Total		27	66	508	

MYT Filing and Technical Validation

12.6 CSPTCL filed the MYT Petition for determination of ARR and transmission charges for Control Period of FY 2010-11 to FY 2012-13 on October 4, 2010. On the initial scrutiny of the MYT petition, several discrepancies were observed and additional information requirement were identified by the Commission and communicated to CSPTCL.

12.7 Subsequently, CSPTCL submitted the additional information and the petition was admitted on December 7, 2010. A Technical Validation Session (TVS) was held on January 19, 2011 and attended by the staff of the Commission, officers of CSPTCL, and consultants of both CSPTCL and the Commission. During the discussion, CSPTCL was advised to furnish additional data, which were considered material for examination of the ARR and tariff, as mentioned below:

i) Asset category wise calculation of depreciation for CSEB from FY 2005-06 to FY 2008- 09 is required. Moreover, the depreciation rates used for calculation of depreciation for FY 2008-09 (Q4) by CSPDCL is not clear. Detailed calculation of the same should be provided.

ii) The details/proof of the actual income tax paid by CSEB in FY 2005-06 to FY 2008- 09 is required.

iii) In Schedule 9 (Employee Expenses), is the amount under Item No 7 - Interim Relief/Wage Revision, a provision or is it the actual funds paid out on account of wage revision?

iv) In Schedule 9 (Employee Expenses), does the amount under Item no 20 - Terminal Benefits, include pension payments made to employees for the year? If yes, then the amount of pension payments and amount of funds transferred to the Pension Fund should be specified separately for each financial year.

v) For FY 2008-09, Rs 183 Cr has been submitted as pension and gratuity till Dec’08. Whereas, in Q4 of FY 2008-09, CSPGCL, CSPTCL and CSPDCL have submitted Rs 59 Cr, Rs 23 Cr and Rs 139 Cr as pension and gratuity respectively, which totals to Rs 221 Cr in only one quarter. The high expenditure under this head should be justified.

vi) The actual employee expenses for CSEB for FY 2005-06 at Rs 636 Cr are substantially higher than the approved employee cost of Rs. 470 Cr. Reasons for the same should be given.

vii) The actual A&G expense for CSEB for FY 2005-06 at Rs 89 Cr is substantially higher than the approved A&G cost of Rs. 56 Cr. Reasons for the same should be given.

viii) In Schedule 8 (A&G Expenses), please provide the breakup of amount spent under item 7 (E) contributions.

ix) Total A&G expenses for FY 2008-09 have increased from Rs 66.1 Cr for the entire year in FY 2007-08 to Rs 105 Cr (9 months of CSEB and total of Q4 expenses of three successor companies) in FY 2008-09. Reason for the same should be provided.

x) In Schedule 12 (Interest and Finance Charges), it is noted that the interest paid on state govt loans @ Rs 132 Cr in FY 2005-06 is higher than the interest payment in the previous or succeeding year. The utility should provide a reason for the same.

xi) In Schedule 6 (Power Purchase Cost) are the given UI charges net off UI income?

xii) The energy balance including sales and T&D losses has not been submitted along with the true up petition for FY 2005-06 to FY 2008-09. The same needs to provided.

xiii) Actual/Provisional Accounts for FY 2008-09, FY 2009-10 and actual information for first six months of FY 2010-11

xiv) A copy of Draft FRP submitted to GoCG for allocation of Assets and Liabilities of the erstwhile CSEB to successor entities

xv) Details about the actual Transmission System Availability for FY 2009-10 and first six months of FY 2010-11 (i.e. April-September 2010).

xvi) Details about the actual network outages & faults during FY 2008-09, FY 2009-10 and first six months of FY 2010-11 (i.e. April-September 2010) and schedule of planned shut downs for periodic maintenance of its transmission lines and substations during the MYT Control Period

xvii) Actual data with respect to capital expenditure for FY 2008-09, FY 2009-10 and actual data, basis and justification for projected quantum of energy transmitted by open access consumers for FY 2008-09, FY 2009-10 and first six months of FY 2010-11 (i.e. April-September 2010).

xviii) To estimate energy availability from CSPGCL stations during the MYT Control Period, CSPTCL has considered PLF @ 85% and auxiliary consumption @ 10%. CSPTCL should provide the rationale for considering the above values.

xix) Explanation of the methodology adopted for determining open access charges for short term open access customers and SLDC charges for the Control Period

xx) Loan schedule and copies of loan agreement for existing loans

xxi) Calculation of depreciation of assets acquired till FY 2008-09 for future years

xxii) The line length for 220KV line i.e. 2922 ckm as on 31st March 2010 as given in Tariff Petition (Form F2A) is not matching with the business plan figure of 2604 ckm as submitted by CSPTCL for MYT period. Similarly, for other voltages, figures provided in tariff petition (Form F2A) are not tallying with the business plan. The same needs to be clarified.

xxiii) As per Form F2B in the tariff petition, the number of sub-stations of 400 KV, 220 KV and 132 KV are given as 11, 107 and 390, respectively for FY 2009-10. However the figures provided in the business plan for FY 2009-10 for the number of sub-stations of 400 KV, 220 KV and 132 KV are 1, 14 and 50, respectively. The petitioner needs to explain this discrepancy.

xxiv) In Form F13 in the MYT tariff petition, the net opening loan for FY 2009-10 has been submitted as Rs. 228.21 Cr, while in the provisional accounts for FY 2009-10 this amount is provided as Rs. 287 Cr. Kindly explain this discrepancy.

xxv) Justification for projecting increase in other income during the MYT period

xxvi) Basis and source of projecting Investment in the form of fixed deposits with banks, companies etc. i.e. Rs. 20.97 Cr as given in Form F17 in the MYT tariff petition

xxvii) Explanation of what constitutes income from trading activities as mentioned in Schedule 5 of Provisional balance sheet

xxviii) Provide details of loans taken from State Government and MPEB Bonds during erstwhile Chhattisgarh Electricity Board regime for interest calculation for MYT period

Brief note on Public Hearing

12.8 CSPTCL issued public notice in the leading newspapers of the State inviting suggestions/comments/objections from the public on its MYT Petition for determination of ARR and Tariff for Control Period FY 2010-11 to FY 2012-13 on December 30, 2010. The Commission held the common public hearings for petitions filed by all three successor companies during the period February 4-18, 2011 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 past years

12.9 The Commission has carried out the truing up for FY 2005-06 to FY 2008-09 for the erstwhile CSEB and for FY 2009-10 for the successor companies. 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 CSPTCL has also been added. The details of the truing up are contained in the sections dealing with true up in this order. The approved net revenue surplus from truing up for past years is Rs.110 Cr for CSPTCL which has been adjusted while determining ARR for future years.

Annual Revenue Requirement (ARR) for Control Period (FY 2010-11 to FY 2012-13)

Transmission Losses

12.10 The transmission losses as reported by CSPTCL for FY 2009-10 were 4.65% as against target of 4.90% set by the Commission. The reduction in transmission loss has been achieved because of improvement in the transmission system and strengthening of network. CSPTCL has mentioned that efforts are being made to reduce it further by augmenting the CSPTCL's transmission network. The Table 156 shows the transmission losses for CSPTCL during FY 2007-08 to FY 2009-10.

Table 156: Actual transmission losses for FY 2007-08 to FY 2009-10 (energy in MU)

Particulars	FY 2007-08	FY 2008-09	FY 2009-10
Total Injection(input) from all sources into State transmission system at 132 KV and above	14,328.61	16,504.27	16,444.32
Less: Total energy consumed by CSPDCL EHV consumers at 132 KV and above	3,052.88	3,287.31	1,928.41
Less: Intra-State actual sales through open access	76.76	-	-
Less: Output to distribution system	10,451.73	12,384.83	13,751.11
Transmission Losses	747.24	832.13	764.80
Transmission Losses	5.22%	5.04%	4.65%

Commission's Views

12.11 During provisional True-up of FY 2009-10, it was observed that actual transmission losses for FY 2009-10 were 4.77% and not 4.65%. Accordingly, the Commission has then considered 0.1% reduction in transmission losses of FY 09-10 and approved 4.67% in FY 2010-11, 4.57% in FY 11-12 and 4.50% in FY 12-13.

Capital Investment Plan for FY 2010-11 to FY 2012-13

12.12 CSPTCL in its Petition has submitted the capital investment plan for FY 2010-11, FY 2011-12 and FY 2012-13 as Rs. 798.05 Cr, Rs. 828.89 Cr and Rs. 574.78 Cr respectively as given in Table 157. This is in line with the Business plan approved by the Commission.

Table 157: Capital expenditure plan (Rs. Cr)

Particulars	Scheme Provision	FY 2011	FY 2012	FY 2013
Normal Development Scheme	1,412.28	330.04	336.20	265.55
Power Evacuation Schemes	1,237.60	355.42	489.01	309.23
Spill Over Works	424.49	112.59	3.68	-
Total	**3,074.37**	**798.05**	**828.89**	**574.78**

Projected Capitalization During the Control Period

12.13 CSPTCL has submitted that new assets/schemes will be capitalized in line with the expected completion of capital works of the respective schemes. The petitioner has taken the expected completion date from the approved business plan.

12.14 The schedule of capitalization of assets is shown in Table 158:

Table 158: Projected capitalization by the Petitioner (Rs. Cr)

Particulars	Petition			
	FY 2010-11	FY 2011-12	FY 2012-13	Total
Capital Cost	501.86	816.77	1,017.45	2,336.08
Interest during construction (IDC)	19.51	52.37	76.64	148.52
Total amount capitalized	521.37	869.14	1,094.09	2,484.60

12.15 The Petitioner has proposed to finance the capital investment plan at a debt equity ratio of 80:20. The schedule of the funding of the capital expenditure submitted by the petitioner is presented in Table 159:

Table 159: Funding of capital expenditure by the Petitioner (Rs. Cr)

Particulars	Petition			
	FY 2010-11	FY 2011-12	FY 2012-13	Total
Capital investment proposed	798.05	828.89	574.78	2,201.71
Interest during construction (IDC)	44.28	75.48	55.66	175.41
Total capital investment incl. IDC	842.32	904.36	630.44	2,377.12
Debt funding (80%)	673.86	723.49	504.35	1,901.70
Equity funding (20%)	168.46	180.87	126.09	475.42

12.16 The Petitioner has proposed to consider 11.25% as interest to calculate Interest during Construction (IDC). Upon seeking clarification during TVS, CSPTCL has replied that it has obtained loans during the last one year with interest rates ranging from 11% to 11.5%, hence, an average rate of 11.25% was assumed for all the loans proposed to be availed. It was assumed that loans availed for ND schemes would be re-paid in 15 years with one year moratorium and loans availed for PE schemes would be re-paid in 15 years after moratorium of 2 years.

Commission's Views

12.17 The Commission has verified that the Petitioner has complied with the approved Business plan in submitting amounts of capital investment plan for the control period (FY 2010-11 to FY 2012-13). Hence, it has considered the capital investment plan submitted by the Petitioner.

12.18 However, based upon the past history and track record of the completion of projects undertaken by CSPTCL, the Commission is of the view that CSPTCL would not be able to meet the completion timelines as mentioned in the Business plan. Hence, the Commission has approved a reasonable rate of capitalization against the submission as given in Table 160.

Table 160: Capitalization (%) approved by the Commission

	FY 2010-11	FY 2011-12	FY 2012-13
Petitioner's Submission (in Rs. Cr)			
(A) Total amount capitalized	521.37	869.14	1,094.09
(B(Less: Undischarged liabilities	20.70	110.56	27.50
(C) Addition to fixed assets (Excl. Undischarged liabilities) (A-B)	500.67	758.58	1066.59
(D) Opening CWIP	236.22	548.83	673.91
(E) Capex during the year	813.28	883.66	519.88
Capitalization submitted by the	**47.7%**	**53.0%**	**89.3%**

	FY 2010-11	FY 2011-12	FY 2012-13
Petitioner (C/(D+E))			
Approved by the Commission	**40.2%**	**40.3%**	**40.3%**

12.19 The Commission has accepted the debt:equity ratio considered by the Petitioner as part of financing plan for the control period. However, the Petitioner had incorrectly calculated debt and equity financing on total capital investment required, instead of considering it only for the capitalized amount as per CSERC MYT Regulations, 2010. The Commission has rectified this error while calculating normative debt and equity financing requirements.

12.20 For calculating applicable interest rate for IDC calculation, the Commission had asked the Petitioner to furnish copies of loan agreements during TVS. The Commission has calculated weighted average rate of interest on the basis of the loan agreements and past loans taken from State Government and MPEB bonds as 11.22% and thus, considered 11.22% in calculation of IDC. Accordingly, the expenses capitalized (incl. IDC) are added to the GFA every year and assumed to be funded by debt: equity ratio of 80:20 for calculating normative loan and normative equity as given in Table 161.

Table 161: Funding approved by the Commission (Rs. Cr)

	Approved			
Particulars	**FY 2010-11**	**FY 2011-12**	**FY 2012-13**	**Total**
Capital cost capitalized	420.79	670.92	563.67	1,655.39
IDC allocated	21.54	51.15	50.67	123.37
Total capitalized expenses	442.33	722.08	614.35	1,778.76
Debt funding (80%)	353.87	577.66	491.48	1,423.01
Equity funding (20%)	88.47	144.42	122.87	355.75

Operation and Maintenance Expenses (O&M expenses)

12.21 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:

12.22 CSPTCL has submitted the O&M expenses by multiplying opening balance of transmission lines and bays with their respective norms as given in Clause 26 (B) of CSERC MYT Regulations, 2010.

Table 162: O&M expenses as per Petitioner (Rs. Cr)

	FY 2010-11	FY 2011-12	FY 2012-13
Particulars	**Petition**	**Petition**	**Petition**
(A) Norms as per Transmission Lines			
- Single Circuit (Single Conductor)	2.89	5.16	6.02
- Double Circuit (Single Conductor)	16.97	18.33	21.66
Total (A)	19.86	23.49	28.05
(B) Norms as per Number of bays			
- 440 KV	6.09	6.44	13.00
- 220 KV	41.49	47.15	59.81

Particulars	FY 2010-11 Petition	FY 2011-12 Petition	FY 2012-13 Petition
- 132 KV	108.03	122.98	143.96
- 66 KV	0.00	0.00	0.00
- 33 KV	88.75	99.88	115.14
- 11 KV	5.04	5.32	5.63
Total (B)	249.40	281.77	337.55
(C) Share of holding company expenses	4.93	5.30	5.70
Total O&M expenses (Rs. Cr.) (A+B+C)	274.19	310.55	371.29

Commission's Views

12.23 As per CSERC MYT Regulations, 2010, norms have been specified for transmission units for projecting O&M expenses. The norms are mentioned in Table 163:

Table 163: Norms for O&M expenses

Norms for sub-station (Rs Lakh per bay)	2010-11	2011-12	2012-13	2013-14
765 kV	77.56	81.99	86.68	91.64
400 kV	55.40	58.57	61.92	65.46
220 kV	38.78	41.00	43.34	45.82
132 kV	27.70	29.28	30.96	32.73
66 kV	19.39	20.50	21.67	22.91
33 kV	13.57	14.35	15.17	16.04
11 kV	9.50	10.04	10.62	11.23
Norms for AC and HVDC lines (Rs lakh per km)				
Single Circuit (Bundled conductor with four or more sub-conductors)	0.568	0.600	0.635	0.671
Single Circuit (Twin & Triple Conductor)	0.378	0.400	0.423	0.447
Single Circuit (Single Conductor)	0.189	0.200	0.212	0.224
Double Circuit (Bundled conductor with four or more sub-conductors)	0.994	1.051	1.111	1.174
Double Circuit (Twin & Triple Conductor)	0.663	0.701	0.741	0.783
Double Circuit (Single Conductor)	0.284	0.301	0.318	0.336
Norm for HVDC Stations				
HVDC Back-to-back stations (Rs lakh per 500m MW)	468	495	523	553

12.24 The Commission has checked the calculations and found that the closing balance of length of transmission lines as on 31st March 2010 taken by CSPTCL in the MYT petition is not matching with the business plan. Upon pointing this discrepancy in TVS, CSPTCL prayed before the Commission that the data submitted in the MYT petition should be considered as final. The Commission has accepted this justification and has considered the petitioner's submission with regard to closing balance of length of transmission network as on 31st March 2010.

12.25 The Commission has observed that CSPTCL has made provision of excess length of lines and number of sub-stations/bays than the provision made in the Business plan for the respective years of the control period for the purpose of estimation of O&M expenses. The Commission considers that the new additions of lines and sub-stations/bays in the MYT period should be within the provision of the Business plan.

12.26 The CSPTCL proposed for capitalization of the work to be executed during the control period as submitted in the petition. However, based on the past experience and the historical data, the Commission has approved for capitalization as mentioned in Table 160.

12.27 Considering above, the expected capitalization of addition in transmission network is shown in Table 164.

Table 164: Transmission network to be capitalized during the control period

Particulars	Provisional	Approved		
	FY 2009-10	**FY 2010-11**	**FY 2011-12**	**FY 2012-13**
(A) Length of Transmission Lines (ckt. Kms)				
- Single Circuit (Single Conductor)				
- 400 kVA	277	277	277	277
- 220 kVA	102.83	273.04	340.81	340.81
- 132 kVA	1149.79	1858.70	1990.13	2013.96
- Sub-total Single Circuit (Single Conductor)	*1529.62*	*2408.74*	*2607.94*	*2631.76*
- Double Circuit (Twin & Triple conductor)	0	0	28.75	167.25
- Double Circuit (Single Conductor)				
- 400 kVA	0	0	0	88.64
- 220 kVA	2819.96	2876.31	3229.53	3283.82
- 132 kVA	3154.13	3195.38	3264.39	3264.39
Sub-total Double Circuit (Single Conductor)	*5974.09*	*6071.69*	*6493.91*	*6636.84*
Total length of transmission lines	**7503.71**	**8480.43**	**9130.60**	**9524.50**
(B) Number of bays				
- 400 KV	11	11	21	21
- 220 KV	107	107	126	126
- 132 KV	390	410	450	470
- 66 KV				
- 33 KV	654	684	738	768
- 11 KV	53	53	53	53
Total number of bays	**1215**	**1265**	**1388**	**1438**

12.28 Hence, the O&M expenses as per the norms given in CSERC MYT Regulations, 2010 including expected network for the MYT period are given in Table 165:

Table 165: O&M expenses approved by the Commission (Rs. Cr)

Particulars	Approved		
	FY 2010-11	**FY 2011-12**	**FY 2012-13**
(A) O&M expenses of Transmission Lines as per norms			
- Single Circuit (Single Conductor)	2.89	4.82	5.53
- Double Circuit (Twin & Triple conductor)	0.00	0.00	0.21
- Double Circuit (Single Conductor)	16.97	18.28	20.65

Particulars	FY 2010-11	Approved FY 2011-12	FY 2012-13
Total (A)	19.86	23.49	26.39
(B) O&M expenses of bays as per norms			
- 400 KV	6.09	6.44	13.00
- 220 KV	41.49	43.87	54.61
- 132 KV	108.03	120.05	139.32
- 66 KV	0.00	0.00	0.00
- 33 KV	88.75	98.15	111.95
- 11 KV	5.04	5.32	5.63
Total (B)	249.40	273.84	324.51
(C) Share of holding company expenses	4.93	5.30	5.70
Total O&M expenses (Rs. Cr.) (A+B+C)	**274.19**	**302.23**	**356.60**

12.29 With regards to the terminal benefits, the actual contribution to the Pension Fund made in FY 2009-10 by all the successor companies was Rs 290 Cr. The Commission is of the opinion that contribution to the Fund should be reasonable and the Fund should be able to sustain itself through the revenue earned from judicious investment of the Fund. However, the Commission also recognises that no actual evaluation for the Fund has been carried out after the recommendations of the Sixth Pay Commission were announced and the requirement of the pension fund might increase when the effect of the Sixth Pay Commission is evaluated.

12.30 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.

12.31 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.

12.32 The O&M expenses approved by the Commission in Section 12.28 include the employee expenses of CSPTCL including annual contribution to pension fund of Rs. 20.5 Cr. This also includes contribution to pension fund for the employees of SLDC.

Interest and Finance Charges

12.33 In its MYT petition for FY 2010-11 to FY 2012-13, CSPTCL has submitted that loans of CSPTCL can be classified into existing loans and new loans. Existing loans are loans allocated to CSPTCL under the transfer scheme of CSEB, while the new loans comprise of loans to be availed by CSPTCL during the projection period.

12.34 The existing loans include loan from state government of Rs. 65.82 Cr at interest rate of 8.5% and MPEB bonds and debentures of Rs. 54.28 Cr at interest rate of 14%. Rest of the loans are taken from PFC at interest rates varying between 11% to 11.50%.

12.35 The Petitioner has submitted that the interest on term loans is computed on the normative loan as per CSERC MYT Regulations, 2010. Based on these Regulations, normative loan liabilities and interest on liabilities for CSPTCL during the control period as submitted by the Petitioner is given in Table 166:

Table 166: Interest on Normative Loan submitted by the petitioner (Rs. Cr)

Computation of interest	FY 2009-10 Estimate	FY 2010-11	FY 2011-12	FY 2012-13
Gross Normative Loan - Opening	731.04			
Cumulative repayment of Normative loan	47.31			
Net Normative loan - Opening	683.73	941.08	1,278.67	1,858.23
Increase in loans due to Additions to GFA during the year	288.90	417.10	695.31	875.27
Repayment of Normative Loan	31.55	79.51	115.76	166.95
Net Normative Loan - Closing	941.08	1,278.67	1,858.23	2,566.54
Weighted average Rate of Interest on actual loans		11.12%	11.15%	11.17%
Interest on Normative loan		**123.40**	**174.82**	**247.15**

12.36 The petitioner has taken gross normative loan at 70% of the gross fixed assets (i.e. Rs. 1,044.34 Cr.), existing as on March 31, 2009 as per provisional accounts of CSPTCL for FY 2009. CSPTCL has assumed that further addition in assets will be taken at 80% of debt and 20% of equity. The repayments of loan during the control period has been considered as equivalent to depreciation during the respective years.

Commission's Views

12.37 For calculating opening normative loan on 1st April 2010, the Commission has first arrived at opening balance of normative equity by assuming that opening GFA as on 1st April 2009 and additions in GFA during FY 2009-10 is funded by equity to the extent of 30%. This is consistent with the methodology followed for true up exercise of FY 2009-10. As SLDC assets were segregated from 1st April 2010 onwards and they were funded by 100% equity, to arrive at CSPTCL stand-alone equity as on 1st April 2010, equity portion of SLDC is deducted from the combined equity balance. The equity calculated is then deducted from the CSPTCL's outstanding GFA balance on 1st April 2010 to arrive at opening normative loan balance of FY 2010-11 as Rs. 855.64 Cr as shown in Table 167.

Table 167: GFA and Equity as per Commission (Rs. Cr)

Normative	Commission's Analysis	
	GFA	Equity
As on 1st April 2009	1,055.85	316.58
Addition during 2009-10	167.09	50.13
Less: transferred to SLDC	14.08	14.08
As on 1st April 2010	1,208.26	352.62

12.38 It is pertinent to mention that SLDC does not have any liability to outstanding loan balances since during the transfer of assets to SLDC no loan was transferred.

12.39 The repayments till FY 2009-10 are taken as submitted by the petitioner and for the control period, repayments are taken as equivalent to depreciation as per CSERC MYT Regulations, 2010.

12.40 The weighted average rate of interest is calculated as described above in Section 12.20. In case of any variation in the interest rate vis-a-vis the considered interest rate for determination of interest charges, the same will be trued-up.

12.41 The Commission has accepted the petitioner's methodology regarding financing of further addition in assets at 80% of debt and 20% of equity as it is consistent with Clause 19.1 of CSERC MYT Regulations, 2010- "*where equity capital actually deployed is equal to or less than 30% of the capital cost, the actual equity shall be considered for determination of tariff*".

12.42 Considering the above, the interest on normative loan as approved by the Commission is given in Table 168.

Table 168: Interest on Normative loan (Approved) (Rs. Cr)

Interest on Normative loan	Provisional FY 2009-10	Approved FY 2010-11	FY 2011-12	FY 2012-13
Gross Normative loan – Opening	738.68	855.64	1,209.50	1,787.17
Cumulative repayment of Normative Loan upto previous year	47.31	78.86	146.00	243.49
Net Normative loan – Opening	691.37	776.78	1,063.50	1,543.68
Increase/Decrease due to addition in capitalization during the Year	133.67	353.87	577.66	491.48
Repayments of Normative Loan during the year	31.55	67.14	97.49	132.32
Net Normative loan – Closing	793.49	1,063.50	1,543.68	1,902.84
Average Normative Loan	742.43	920.14	1,303.59	1,723.26
Weighted average Rate of Interest on actual Loans	11.00%	11.22%	11.22%	11.22%
Interest on Normative loan	81.67	103.21	146.22	193.29

Interest on Working Capital

12.43 The petitioner has calculated working capital on normative basis. The norms are as per CSERC MYT Regulations, 2010 as given below:

i. Expenses : 1 month's O&M expenditure

ii. Maintenance spares : 15% of O&M Expenditure

iii. Receivables : 2 months of income

12.44 The interest on working capital has been considered at normative interest rate of 11.75% which is prevailing SBI Short term Prime Lending Rate as on 1st April 2010.

Table 169: Interest on working capital submitted by the petitioner (Rs. Cr)

Normative interest on Working capital	Petition FY 2010-11	FY 2011-12	FY 2012-13
O&M Expenses	22.85	25.88	30.94
Maintenance Spares	41.13	46.58	55.69
Receivables	87.34	107.76	149.07
Net working capital requirement	151.32	180.22	235.71

Normative interest on Working capital	Petition FY 2010-11	FY 2011-12	FY 2012-13
Normative interest on working capital	**17.78**	**21.18**	**27.70**

Commission's Views

12.45 For calculating interest on normative working capital, the Commission has accepted the methodology and PLR rate proposed by the petitioner. However, the Commission has reduced contribution to pension fund and gratuity from O&M expenses for calculating normative working capital. Further, the difference between the submission and approved interest on working capital is also due to difference in ARR requirement and hence receivables.

Table 170: Interest on Normative working capital (Approved) (Rs. Cr)

Normative interest on Workng capital	Approved FY 2010-11	FY 2011-12	FY 2012-13
O&M Expenses	21.14	23.48	28.01
Maintenance Spares	38.05	42.26	50.41
Receivables	84.05	100.14	127.95
Net working capital requirement	**143.24**	**165.87**	**206.37**
Normative interest on working capital	16.8	19.5	24.2

Capitalization of Interest during construction (IDC) and O&M expenses

12.46 The O&M expenses incurred towards addition of capital assets has to be capitalized and added to the asset value, and charged off through depreciation over the life of the asset. Similarly, the interest expenditure during the construction period (IDC) has to be capitalized and added to the asset value.

12.47 CSPTCL has projected IDC during the control period as Rs. 44.3 Cr, Rs. 75.7 Cr and Rs. 55.7 Cr respectively.

Commission's Views

12.48 The Commission has considered interest and other expenses capitalized during the control period as per the capitalization rate approved by the Commission. The petitioner had mistakenly considered IDC instead of considering IDC capitalized. This error has been rectified by the Commission and approved the Interest and other charges capitalized as given in Table 171. It is pertinent to mention that the addition of IDC in GFA would be trued-up as per the actual GFA at the end of the respective year of the control period.

Table 171: Interest and other charges capitalized (Approved) (Rs. Cr)

Interest and other charges capitalised	FY 2010-11	FY 2011-12	FY 2012-13
Petition	44.3	75.5	55.7
Approved	21.54	51.15	50.67

Depreciation

12.49 For calculating depreciation, the petitioner has computed depreciation on total assets as per the schedule of rates specified in the CSERC MYT Regulations, 2010. The weighted average rate for depreciation is taken to be 5.22%, as shown in Table 172.

Table 172: Depreciation of assets submitted by the petitioner (Rs. Cr)

Total Depreciation	FY 2010-11	FY 2011-12	FY 2012-13
GFA Opening Block	1,405.47	1,926.84	2,976.0
Accumulated Depreciation - Opening Block	314.64	394.14	509.9
Addition to the GFA during the year	521.37	869.14	1,094.09
Year-wise Depreciation	79.51	115.76	166.95
Accumulated depreciation - Closing Block	394.14	509.9	676.86
GFA Closing block	1,926.84	2,976.0	3,890.07
Depreciation rate (%)	5.22%	5.22%	5.22%

Commission's Views

12.50 The Commission has observed that the Petitioner had not considered the actual addition in fixed assets in FY 2009-10 as provisional accounts were not available at the time of filing the petition. Hence, the Commission has rectified addition in fixed assets in FY 2009-10 by considering increase in fixed assets given in the provisional accounts, after adjusting it by deducting assets pertaining to SLDC.

12.51 For the control period, the Commission has computed depreciation rate in accordance with CSERC MYT Regulations, 2010 as 5.22%, which is also in line with the petitioner's submission.

12.52 The depreciation approved by the Commission is given in Table 173.

Table 173: Depreciation approved by the Commission (Rs. Cr)

Depreciation	FY 2010-11	FY 2011-12	FY 2012-13
Opening Gross Fixed Assets	1,208.3	1,650.6	2,372.7
Additional capitalization during the FY	442.3	722.1	614.3
GFA at the end of the year	1,650.6	2,372.7	2,987
Rate of depreciation	5.22%	5.22%	5.22%
Amount of depreciation	67.1	97.5	132.3

Return on Equity

12.53 As mentioned in Section 12.36, the Petitioner has assumed that opening GFA of the company is funded by debt: equity ratio of 70:30, while during the subsequent years, the new capital expenditure is assumed to be funded by debt : equity ratio of 80:20.

12.54 The details of determination of equity capital are presented in Table 174.

Table 174: Return on Equity calculations submitted in the Petition (Rs. Cr)

Details of RoE computations	FY 2010-11	FY 2011-12	FY 2012-13
GFA as on 1st April 2009	1,044.3	1,044.3	1,044.3
Normative Equity capital for existing GFA	360.61	360.61	360.61
Additions to GFA	521.37	869.14	1,094.09
Additions in equity (20%)	104.27	173.83	218.82
Normative equity for ROE	484.98	624.03	820.35
Return on equity (Pre-tax)	93.91	120.83	158.84

Commission's Views

12.55 As explained in Section 12.37, to calculate equity balance, the Commission has assumed that 30% of the opening GFA as on 1st April 2009 and additions in GFA in FY 2009-10 is funded by equity. As SLDC assets were segregated from 1st April 2010 onwards and they were funded 100% by equity, to arrive at CSPTCL stand-alone equity, equity portion of SLDC is subtracted from the combined equity balance as on 1st April 2010.

12.56 Further, additions in assets in the MYT period is assumed to be funded by 20% of equity as projected by the petitioner. Pre- tax base rate of return is assumed as 15.5% as per CSERC MYT Regulations, 2010 and MAT rate taken is 19.93%, which shall be trued up on the basis of the actual rate prevelant in the year as notified by GoI from time to time.

Table 175: Calculation of Opening GFA (Rs. Cr)

Calculation of opening GFA	Commission
GFA as on 1st April 2009	1,055.25
Addition in GFA in 2009-10	167.09
Less: assets transferred to SLDC	14.08
GFA as on 1st April 2010	1,208.26

Table 176: Calculation of Opening Equity (Rs. Cr)

Calculation of opening equity	Commission
Equity as on 1st April 2009	316.58
Addition in equity in 2009-10	50.13
Less: equity transferred to SLDC	14.08
Equity as on 1st April 2010	352.62

Table 177: Return on Equity approved by the Commission (Rs. Cr)

Normative Equity Capital	2010-11	2011-12	2012-13
GFA as on 1st April 2010	1,208.26		
Normative equity capital for existing assets	352.62	352.62	352.62
Opening balance of GFA	1,208.26	1,650.59	2,372.67
Additions to GFA	442.33	722.08	614.35
Closing balance of GFA	1,650.59	2,372.67	2,987.02
Normative equity for assets acquired after 1st April 2010			
- Opening balance		88.47	232.88
- Additions during the year	88.47	144.42	122.87
- Closing balance	88.47	232.88	355.75
Notional equity for computation of ARR	396.85	513.29	646.94
Return on equity (Pre-tax %)	19.358%	19.358%	19.358%
Return on Equity	**76.82**	**99.36**	**125.24**

Provision for Taxes

12.57 As per CSERC MYT Regulations, 2010 post-tax return on equity has been considered while computing RoE. Therefore, the tax provisions have not been separately considered for computation of Aggregate Revenue Requirement by the Petitioner.

Commission's Views

12.58 In view of the above submission, the Commission has not provided for any provision for taxes.

Non-tariff Income

12.59 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.

12.60 CSPTCL had earlier projected non-tariff income as Rs. 21.79 Cr for FY 2009-10 in its MYT petition, instead of mentioning actual amount as the provisional accounts were not available at the time of filing MYT petition. It had projected non-tariff income of subsequent years in control period by assuming escalation in some components of non-tariff income over FY 2009-10.

Commission's views

12.61 The Commission has considered the provisional accounts of FY 2009-10 as base and provided escalation in some components of non-tariff income in view of the historical trends.

12.62 The Commission had sought clarifications regarding the reasons on account of which interest on advances to suppliers/contractors have increased significantly in the control period. The CSPTCL clarified during Technical Validation Session that interest on advances to suppliers/contractors will increase mainly due to very high capital expediture planned for the next 3 years, which would lead to higher advances and higher interest amount. The Commission has accepted this justification and has considered CSPTCL's escalation rates to project non-tariff income for the control period.

Table 178: Non-tariff income approved by the Commission (Rs. Cr)

	Particulars	Provisional	Approved			
		2009-10	2010-11	2011-12	2012-13	Growth (%)
A	Income from Investments, Fixed and Call Deposits					
1	Interest income from investments	1.31	1.31	1.31	1.31	0%
2	Interest on fixed deposits	0.00	0.00	0.00	0.00	0%
3	Interest from banks other than fixed deposits	0.00	0.00	0.00	0.00	0%
4	Interest on any other items	0.00	0.00	0.00	0.00	0%
	Sub-total (A)	1.32	1.32	1.32	1.32	
B	Other non-tariff income					
1	Interest on loans and advances to staff	0.19	0.19	0.19	0.19	0%
2	Interest on Loans and Advances to Licensee	0.00	0.00	0.00	0.00	0%
3	Interest on loans and advances to Lessors	0.00	0.00	0.00	0.00	0%
4	Interest on Advances to Suppliers / Contractors	0.00	1.00	1.00	1.00	-
5	Income from Trading (other than Electricity)	4.14	4.35	4.56	4.79	5%
6	Gain on Sale of Fixed Assets	0.00	0.00	0.00	0.00	0%
7	Income/fee/collection against staff welfare activities	0.01	0.01	0.01	0.01	0%
8	Miscellaneous receipts	5.20	5.46	5.74	6.02	5%
9	Delayed payment charges from	0.00	0.00	0.00	0.00	0%

	Particulars	Provisional 2009-10	Approved 2010-11	2011-12	2012-13	Growth (%)
	beneficiary					
10	Misc. charges from beneficiary	0.00	0.00	0.00	0.00	0%
11	Open access charges*	2.69				
	Sub-total (B)	9.54	11.01	11.50	12.02	
	Total (A+B)	**13.55**	**12.33**	**12.82**	**13.33**	

* Open access charges mentioned in the above table are short term open access charges recovered from the short term open access customers.

12.63 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. Therefore, from FY 2010-11 onwards, these charges have not been considered in the Non-tariff income of CSPTCL.

Summary of ARR of CSPTCL

12.64 Based on various elements of expenses and return discussed above, the summary of ARR of CSPTCL for the control period as projected by CSPTCL and as approved by the Commission is given in Table 179.

Table 179: ARR for CSPTCL for MYT Period (Rs. Cr)

S.No	Particulars	Petition 2010-11	2011-12	2012-13	Approved 2010-11	2011-12	2012-13
1	O&M Expenses	274.2	310.6	371.3	274.2	302.2	356.6
2	Depreciation	79.5	115.8	167.0	67.1	97.5	132.3
3	Interest on loan and Finance charges	123.4	174.8	247.2	103.2	146.2	193.3
4	Less: Interest & other expenses capitalised	(44.3)	(75.5)	(55.7)	(21.54)	(51.15)	(50.67)
5	Interest on working capital	17.8	21.2	27.7	16.8	19.5	24.2
5	Income tax	0	0	0	0	0	0
A	Total Expenditure	450.6	546.8	757.4	439.76	514.25	655.73
B	Add: Reasonable Return	93.9	120.8	158.8	76.82	99.36	125.24
C	Less: non-Tariff Income	(20.4)	(21.1)	(21.8)	(12.33)	(12.82)	(13.33)
D	Less: Revenue from other charges (open access customers)						
E	**Aggregate Revenue Requirement (A+B-C-D)**	**524.2**	**646.6**	**894.4**	**504.25**	**600.79**	**767.64**

Treatment of surplus/deficit of Previous Years

12.65 The approved revenue gap/surplus for previous years upto FY 2008-09 has then been allocated to CSPGCL, CSPTCL and CSPDCL in the ratio of 35:5:60. The Commission has also conducted provisional true for the successor companies for FY 2009-10 as has been discussed in the section dealing with truing up for past years.

12.66 Accordingly, the allocated revenue surplus to CSPTCL on account of truing up till FY 2009-10 of Rs.110 Cr has been adjusted in the approved ARR for CSPTCL for FY 2010-11.

12.67 The adjusted ARR of CSPTCL on the basis of the previous years's surplus/deficit is given in Table 179.

Table 180: Adjusted ARR of CSPTCL and Transmission Tariff for MYT period (Rs. Cr)

Sl. No.	Particulars	Units	Commission's Analysis		
			2010-11	2011-12	2012-13
1	Approved ARR	Rs Cr	504.25	600.79	767.64
2	Net Input into the Transmission System	MU	26,840	27,866	
3	*Approved Transmission Tariff as per Previous Tariff Order*	*Rs/kWh*	*0.15*		
4	Recovery in FY 2010-11 as per Tariff rate of Previous Order (FY 10)	Rs Cr	246		
5	Deficit for FY 2010-11	Rs Cr	-258		
6	Surplus/(Deficit) carried forward from Previous years (upto FY 2009-10)	Rs Cr	110		
7	Surplus/(Deficit) carried forward to FY 2011-12	Rs Cr	-148		
8	**Adjusted ARR**	**Rs Cr**	**246**	**748**	**768**
9	**Approved Transmission Tariff**	**Rs/kWh**	**0.15**	**0.27**	

12.68 It is pertinent to mention that CSPTCL has recovered Rs. 246 Cr from its customers in FY 2010-11 as per tariff rate of previous tariff order of FY 2009-10. Considering ARR of Rs. 504 Cr, there was deficit of Rs. 258 Cr which is to be adjusted. However, true up of previous periods has resulted in surplus of Rs. 110 Cr (allocated to CSPTCL from CSEB regime). Hence, net deficit which will be carried forward to FY 2011-12 is Rs. 148 Cr.

Date of applicability of tariff

12.69 In this tariff order, the Commission has created a regulatory asset of Rs. 343 Cr from the revenue gap of CSPDCL. Due to this the distribution utility shall not be able to recover the full cost as per the ARR resulting in working capital and cash flows issues. However to give relief to some extent, the Commission has decided to implement the tariff for CSPTCL w.e.f the same date i.e. as the date of applicability of the Retail tariff of CSPDCL, which shall be intimated by CSPDCL to CSPTCL.

Payment of Transmission Charge for use of CSPTCL's system

12.70 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 CSPTCL's system, the annual transmission cost (fixed cost) shall be recovered on a monthly basis.

12.71 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.

12.72 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.

12.73 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. The petitioner has requested that they may start a mock billing according to the CSERC MYT Regulations, 2010 from October 2011 onwards. The Commission agrees with the proposal of the CSPTCL and the Commission feels that the methodology specified for the billing in the CSERC MYT Regulations, 2010 is availability based and it may have to be started only after a trial run is conducted. For CSPGCL also, the Commission has granted certain time for ABT based billing according to the CSERC MYT Regulations, 2010. Therefore, on the plea of the CSPTCL, the Commission directs that the CSPTCL may conduct a trial-run and start mock billing according to the methodolgy specified in the Regulations.

Billing for FY 2011-12

12.74 Due to the reason stated above for FY 2011-12, the CSPTCL shall recover the annual transmission charges from the users of the CSPTCL system on a monthly basis as below.

12.75 The annual transmission charge for FY 2011-12 is Rs. 748 Cr. Monthly transmission charges are Rs. 62.333 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 alloted capacity proportionately.

12.76 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 sytem in the previous financial year.

12.77 **Illustration**

Case 1:

Suppose the maximum demand in previous financial year i.e. FY 2010-11 is 2979 MW.

Suppose, there are two long term open access customers and there are no medium term and short term open access customers for FY 2011-12.

The capacity contracted by long-term open access customer, say Arasmeta is 16 MW.

The capacity served for CSPDCL shall be 2979-16 =2963 MW.

The annual estimated and approved transmission charge for FY 2011-12 is Rs 748 crores, then monthly transmission charges for FY 2011-12 shall be shared as follows:

CSPDCL = (748 x 2963) /(2979 x 12) = Rs 61.998 crores

Long-term open access customer Arasmeta= (748 x 16)/(2979 x 12) = Rs 0.334 crores or Rs. 33.478 lacs.

Case 2:

Suppose the maximum demand in previous financial year i.e. FY 2010-11 is 2979 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 2011-12. Suppose there is no short term open access customer for the month of August of FY 2011-12. Then, the monthly transmission charge from August FY 2011-12 onwards shall be shared as follows:

The capacity contracted (alloted) for first long-term open access customer, say Arasmeta is 16 MW.

The capacity alloted 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 2979-16-20 =2943 MW.

The annual estimated and approved transmission charge for FY 2011-12 is Rs 748 crores, then monthly transmission charges for FY 2011-12 shall be shared as follows:

CSPDCL = (748 x 2943) /(2979 x 12) = Rs 61.580 crores

Long-term open access customer Arasmeta= (748 x 16)/(2979 x 12) = Rs 0.334 crores or Rs. 33.478 lacs.

Medium term open access customer = (748 x 20)/(2979 x 12) = Rs. 0.418 crores or Rs. 41.8 lacs

Case 3:

Suppose the maximum demand in previous financial year i.e. FY 2010-11 is 2979 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 2011-12.

Suppose short term open access is granted to 10 new open access customers for the use of CSPTCL's sytem for the month of September of FY 2011-12. Then, the monthly transmission charges for September of FY 2011-12 shall be shared as follows:

The capacity contracted (alloted) for first long-term open access customer, say Arasmeta is 16 MW.

The capacity alloted 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 2979-16-20 =2943 MW.

The annual estimated and approved transmission charge for FY 2011-12 is Rs 748 crores, then monthly transmission charges for FY 2011-12 shall be shared as follows:

Suppose the revenue earned from the ten short-term open access customers for the month of September of FY 2011-12 is Rs. 5 Cr.

Then, the monthly transmission charge payable by the long term and medium term open access customers shall be (748/12)-5 = Rs. 57.333 Cr.

The monthly transmission charges for the month of September shall be shared as follows:

CSPDCL = (57.333 x 2943) /(2979) = Rs 56.640 crores

Long-term open access customer Arasmeta= (57.333 x 16)/(2979) = Rs 0.307 crores or Rs. 30.793 lacs.

Medium term open access customer = (57.33 x 20)/(2979) = Rs. 0.384 crores or Rs. 38.491 lacs

Alternatively, as the annual transmission charge is Rs. 748 Cr and suppose, the maximum demand served by CSPTCL for FY 2010-11 is 2979 MW. Therefore, for example the monthly transmission charge corresponds to Rs. 2.092 lacs per MW.

Miscellaneous Charges

12.78 The CSPTCL has proposed to collect certain miscellaneous charges on account of various acivites undertaken by CSPTCL in its MYT petition. The Commission is of the view that these miscellaneous charges should not be part of the tariff. The Commission has already communicated to CSPTCL in writing that the Commission will consider and examine these charges separately however existing miscellaneous charges being levied by CSPTCL will be continued to be levied by CSPTCL without any change till the issuance of order by the Commission for new miscellaneous charges.

13 DETERMINATION OF AGGREGATE REVENUE REQUIREMENT AND SLDC CHARGES FOR FY 2010-11 TO FY 2012-13

About SLDC

13.1 As per applicable provisions of the Electricity Act, 2003, the State Government shall establish a SLDC. Subsection (2) of the 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.

13.2 In the state of Chhattisgarh, the Load Dispatch Centre (LDC) situated in Raipur (originally situated at Bhilai and was shifted to Raipur recently) has been designated as the State Load Dispatch Centre, which shall be operated for the purpose of exercising the powers and discharging the functions under the said Act for discharging SLDC functions of electricity in the Chhattisgarh State.

13.3 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:

- 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;
- Monitor grid operations;
- Keep accounts of the quantity of electricity transmitted through the state grid;
- Exercise supervision and control over the intra-state transmission system; and
- 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

13.4 SLDC filed the MYT Petition for determination of ARR and charges for Control Period of FY 2010-11 to FY 2012-13 on January 5, 2011 and the petition was admitted on January 21, 2011 after preliminary scrutiny of the petition. On the 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. Details of actual repairs and maintenance expenses incurred in 2010-11 till date and detailed estimate for the March month expenditure with detailed component-wise break-up

ii. Details of administrative and general expenses incurred in 2010-11 till date and detailed estimate for the March month expenditure with detailed component-wise break-up

iii. Details of employee expenses incurred in 2010-11 till date and detailed estimate for the March month expenditure with detailed component-wise break-up

iv. Explain nature of LTSA (SCADA and EMS) expense mentioned in the MYT petition in R&M expenses head Also, explanation for huge expense of Rs. 75 lacs, 80 lacs and 85 lacs which are going to be incurred in the future years was asked.

v. Details of actual O&M (R&M, employee and A&G) expenditure during last five years i.e. from FY 2005-06 to FY 2009-10

vi. Basis for projections made for employee expenses for FY 2011-12 and basis on which other allowances are increased by 200% in FY 2011-12 vs. FY 2010-11.

vii. Reason for assuming advertisement expenses as Rs. 2 lacs in the last six months of FY 2010-11 for FORM 7D.

viii. Accounts supporting actual capital expenditure for the FY 2009-10.

ix. Basis on which SLDC has calculated repairs and maintenance expenses for FY 2010-11 in FORM 7C

x. Actual debt/equity ratio for SLDC as on 1st April 2010. The petitioner has submitted 100% equity.

xi. Out of Rs. 513 lacs of capex planned in 2010-11 (as approved under business plan), Rs. 65 lacs has been taken for transfer of assets from Bhilai to Raipur. However, the transfer is not yet complete in 2010-11 and is expected to be completed in 2011-12. Hence, detailed break-up of the amount spent in 2010-11 should be made available by the petitioner. The balance amount would be allowed in FY 2011-12.

Base Year

13.5 As per CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations, 2010, base year is considered as FY 2010-11.

Operation and Maintenance (O&M) expenses

13.6 The SLDC has projected operation and maintenance (O&M) expenses under the following heads:

- Employee expenses
- Repairs & Maintenance Expenses
- Administration & General Expenses

Employee expenses

13.7 The SLDC has submitted as part of additional information that on 1st March 2011, they had 50 employees and plans to have 62 employees by FY 2012-13. Employee expenses projected by SLDC for the control period are as follows:

Table 181: Employee expenses of SLDC submitted by the Petitioner (Rs. Cr)

Employee Expenses (Petition)	2010-11	2011-12	2012-13
Employee cost	5.23	6.91	7.31

Commission's Views

13.8 The Commission has accepted the increase in number of employees projected by the SLDC and has accordingly approved employee expenses. The Commission has considered actual employee expenses for April 2010 to Feb 2011 as base figure and projected employee expenses for FY 2010-11, FY 2011-12 and FY 2012-13 after adjusting for increase in number of employees.

Table 182: Employee expenses of SLDC (Approved) (Rs. Cr)

Employee Expenses (Approved)	2010-11	2011-12	2012-13
Employee cost	4.73	5.51	6.56
No. of employees	50	55	62

13.9 The Commission has assumed increase in number of employees in a staggered manner and provided 5.72% increase in employee cost over the previous year as per CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations 2010.

13.10 The contribution to pension and gratuity fund for SLDC employees has been included in CSPTCL's employee expenses as mentioned in Section 12.32.

Administrative and General Expenses

13.11 The Administrative & General expenses comprise of rent, rates and taxes, travel and conveyance expenses, communication expenses, vehicle hiring expenses, office energy charges, consultancy and legal fees, insurance, and other administration expenses. The petitioner has submitted the following as budgeted A&G expenses during the control period:

Table 183: A&G expenses submitted by the Petitioner (Rs. Cr)

A&G Expenses (Petition)	2010-11	2011-12	2012-13
A&G expenses	0.66	1.08	1.14

Commission's Views

13.12 The Commission has considered actual A&G expenses for April 2010 to Feb 2011 submitted by the petitioner as base figure and provided escalation of 5.72% over it for subsequent years to arrive at approved A&G expenses.

Table 184: A&G expenses approved by the Commission (Rs. Cr)

A&G Expenses (Commission)	2010-11	2011-12	2012-13
A&G expenses	0.66	0.70	0.74

Repairs and maintenance expenses

13.13 The petitioner has calculated the Repairs and Maintenance expense based upon the historic trends in the repair and maintenance cost.

Table 185: Repairs and maintenance expenses (Petition) (Rs. Cr)

R&M Expenses (Petition)	2010-11	2011-12	2012-13
R&M expenses	1.88	1.98	2.10

Commission's Views

13.14 The Commission has considered R&M expenses for FY 2010-11 as base figure and provided escalation of 5.72% over it for subsequent years to arrive at approved R&M expenses. However, the Commission has not provided escalation on AMC of LISA of Wide Band telecom and LTSA of SCADA/EMS. Those expenses have been assumed as recurring expenses every year with the same value as that of FY 2010-11.

Table 186: Repairs and maintenance expenses (Approved) (Rs. Cr)

R&M Expenses (Commission)	2010-11	2011-12	2012-13
R&M expenses	1.52	1.55	1.58

Capital Investment Plan for the Control period

13.15 SLDC had submitted the capital investment plan as approved by the Commission in the Business Plan. However, going by the actual pace of development, the Commission asked SLDC to submit revised capital investment plan for the control period based on realistic and latest estimates.

13.16 The revised capital investment plan submitted by SLDC is as under:

Table 187: Capital investment plan submitted by SLDC (Rs. lacs)

Capital Investment Plan (Rs. Lacs)	2009-10	2010-11	2011-12	2012-13
Normal Development				
HW & SW for SCADA/EMS sys. & WAM/PMU based system	20.26	43.83	60.00	60.00
Cyber security and data security		1.03	10.00	10.00
Implementation of 61850/104 protocol		0.00	10.00	10.00
New Multi Channel Voice Recorder		1.28	0.00	0.00
Shifting of SLDC Equipment		6.60	0.00	0.00
Communication between Raipur & Bhilai SLDC		45.50	0.00	0.00
Purchase of New batteries for UPS		0.00	15.00	0.00
SLDC New building cost	297.28	76.97	89.00	0.00
Sub LDC (i.e. ALDC) at Bilaspur		0.00	100.00	100.00
Sub-total (A)	317.54	175.21	284.00	180.00
Up-gradation for Off-line Systems				
Software/Hardware up-gradation for MEA System		0.00	10.00	20.00
Software/Hardware for Online Power System Study		0.00	10.00	5.00
Software upgradation (Antivirus, Office suite, Proxy etc)		0.00	3.00	3.00
Up gradation of internet Media and Networking		0.00	4.00	4.00
PCs for executives & control room (17 nos.) with acc.		8.00	2.00	2.00
Sub-total (B)		8.00	29.00	34.00
Other Infrastructure				
Video conferencing		0.00	20.00	0.00
Office Equipments		0.00	5.00	5.00
Sub-total (C)		0.00	25.00	5.00
Grand total	**317.54**	**183.21**	**338.00**	**219.00**

Capitalization Plan

13.17 The capital investment envisaged in the SLDC petition is assumed to be capitalized in the same year as the volume of the investment is very small and implementation period for most of the fixed assets proposed to be acquired is less.

Funding of Capital expenditure

13.18 SLDC has assumed that the capital investment plan will be funded at debt: equity ratio of 70:30.

Commission's Views

13.19 The Commission has accepted the latest capital investment plan submitted by the SLDC which is more realistic and achievable.

13.20 The Commission has agreed to the capitalization plan and funding plan of SLDC as per the latest achievable figure given by SLDC.

Table 188: Capital Investment Plan approved by the Commission (Rs. Cr)

Capital Investment Plan	2010-11	2011-12	2012-13
Total	**1.83**	**3.38**	**2.19**

Interest and finance charges

13.21 SLDC has assumed that the capital investment is funded by a normative debt equity mix of 70:30. Interest has been calculated on normative loan in compliance to the CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations, 2010. Clause 8 of the Regulations specifies 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.

13.22 Repayment of normative loan was taken as equivalent of total Depreciation during the year. SLDC has assumed rate of interest of new loans to be 11.25%, benchmarking it with the PFC lending rate of CSPTCL.

Commission's Views

13.23 The Commission has considered the methodology of SLDC. It has taken 11.23% as the benchmark PFC lending rate of CSPTCL after calculating weighted average rate of PFC after scrutinizing loan agreements.

Table 189: Interest on normative loan approved by the Commission (Rs. Cr)

Interest on Normative Loan (Commission)	2010-11	2011-12	2012-13
Opening Normative loan	0.00		
Capital expenditure during the year	1.83	3.38	2.19
Increase in debt due to capital expenditure	1.28	2.36	1.53
Repayment of Normative loan during the year	0.39	0.57	0.80
Closing normative loan	0.89	2.68	3.40
Average normative loan	0.44	1.78	3.04
Interest on normative loan	0.05	0.20	0.34

Interest on Working Capital

13.24 SLDC has estimated working capital on normative basis in its petition. The norms are as per CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations, 2010 and given below:

- O & M Expenses (other than HR expenses) : 1 month's expenditure
- HR Expenses : 1 month's expenditure
- Receivables : 2 months of income

13.25 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 Views

13.26 The Commission has accepted the methodology adopted by the petitioner.

Table 190: Interest on working capital (Approved) (Rs. Cr)

Interest on Working Capital (Commission)	2010-11	2011-12	2012-13
O&M expenses (excl. HR expenses)	0.18	0.19	0.19
Human Resource expenses	0.39	0.46	0.55
Receivables	1.74	1.96	2.25
Total working capital	2.31	2.61	2.99
Interest on working capital	0.27	0.31	0.35

Depreciation

13.27 SLDC has calculated depreciation in the similar manner in which CSPTCL has submitted in its petition. Depreciation values on the opening block of fixed assets were provided by CSPTCL. Depreciation on the additions to fixed assets during control period is calculated based on the rates provided in CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations, 2010.

Commission's Views

13.28 The Commission has accepted the methodology adopted by the Petitioner in arriving at depreciation.

Table 191: Depreciation of SLDC (Approved) (Rs. Cr)

Depreciation (Commission)	2009-10	2010-11	2011-12	2012-13
	(Actual)	(Approved)	(Approved)	(Approved)
GFA as on 1st April 2009	10.91	10.91	10.91	10.91
Depreciation on opening assets	0.26	0.25	0.24	0.23
Depreciation on assets acquired after 1st April 2009	0.039	0.14	0.33	0.57
Total depreciation for the year	0.30	0.39	0.58	0.81

Return on Equity

13.29 CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations, 2010 has approved maximum pre tax - base rate of reasonable return of 15.5% for SLDC. The RoE has been calculated based upon the grossed up rate of return of 19.358%.

Commission's Views

13.30 The reasonable return allowed by the Commission for FY 09-10 is given in Table 192.

Table 192: Return on Equity approved by the Commission (Rs. Cr)

Return on Equity (Commission)	2010-11	2011-12	2012-13
GFA as on 1st April 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	1.01	0.65
Total notional equity for computation of RoE	14.36	15.14	15.97
Return on Equity @ 19.358%	2.78	2.93	3.09

Summary of ARR of SLDC

13.31 Based on various elements of expenses and return discussed above, the summary of ARR of SLDC for the control period as approved by the Commission is given in Table 193.

Table 193: ARR of SLDC approved by the Commission (Rs. Cr)

Annual Revenue Requirement	**2010-11**	**2011-12**	**2012-13**
Human resource expenses	4.74	5.51	6.57
O&M expenses excl. human resource expenses	2.18	2.25	2.32
- A&G expenses	*0.66*	*0.70*	*0.74*
- R&M expenses	*1.52*	*1.55*	*1.58*
Interest on loan capital	0.05	0.20	0.34
Interest on working capital	0.27	0.31	0.35
Depreciation	0.39	0.58	0.81
Return on Equity	2.78	2.93	3.09
Total ARR	**10.42**	**11.78**	**13.48**

13.32 It is to be noted that CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations, 2010 have been implemented for the first time for the period starting from FY 2010-11. The ARR will be re-examined again by the Commission in Annual Accounts Review.

Date of applicability of tariff

13.33 In this tariff order, the Commission has created a regulatory asset of Rs. 343 Cr from the revenue gap of CSPDCL. Due to this the distribution utility shall not be able to recover the full cost as per the ARR resulting in working capital and cash flows issues. However to give relief to some extent, the Commission has decided to implement the tariff for SLDC w.e.f. the same date as the date of applicability of the Retail tariff of CSPDCL, which will be intimated by CSPDCL to SLDC.

Recovery of ARR by SLDC

13.34 The recovery of SLDC charges will be as per "*Chapter 4: Levy and Collection of fees and charges*" of CSERC (Fees and charges of state load dispatch centre and other related matters) Regulations, 2010.

13.35 **Illustration:** Suppose the annual charges of SLDC are Rs 11.78 Cr for FY 2011-12.

The total capacity contracted by intra-State sellers as per firm bilateral agreements i.e. long term and medium term PPA is 2116 MW.

Suppose 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.

Suppose NSPCL station has a firm bi-lateral agreement/PPA with the distribution licensees for say, 200 MW.

Say, a captive generating plant Arasmeta carries 16 MW (open access) for its captive use (at Lafarge plant).

The transmission capacity contracted by intra-state buyer is say 2979 MW. Intra-state buyer i.e. Lafarge has agreement for 16 MW. Inter-state buyer CSPDCL has agreement for 2963 MW.

Annual System Operation Charges (SOC) = Rs 9.424 Cr (80% of annual charges)

Monthly System Operation Charges (SOC) = Rs 0.785 Cr (9.424/12)

50% of Monthly System Operation Charges (SOC) = Rs 0.392 Cr or Rs 39.2 lac

Annual Market Operation Charges (MOC) = Rs 2.356 Cr (20% of annual charges)

Monthly Market Operation Charges (MOC) = Rs 0.196 Cr (2.356/12)

SOC charges

1) Monthly charges for CSPGCL = 1900/2116 x 0.392 = Rs. 0.352 Cr

2) Monthly charges for NSPCL = 200/2116 x 0.392 = Rs. 0.037 Cr

3) Monthly charges for Arasmeta = 16/2116 x 0.392 = Rs. 0.0029 Cr or Rs. 0.296 lac

4) Monthly charges for CSPDCL = Rs 0.392 Cr

MOC Charges

CSPGCL has firm long term agreement/PPA for 1900 MW and it has 4 generating stations excluding renewable energy.

NSPCL supplies 200 MW of power from a single generating station and Arasmeta also supplies 16 MW of power from a single generating station.

Monthly MOC charges of CSPGCL stations shall be:

DSPM station = 0.196/6 = Rs 0.0327 Cr or Rs. 3.272 lac

Similarly, for all other stations Korba West, Korba East Complex, Bango, NSPCL and Arasmeta, monthly MOC charges are Rs. 3.272 lac each. Total monthly charges payable by CSPGCL is Rs. 13.088 lac.

14 CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LTD – DETERMINATION OF ARR FOR CONTROL PERIOD FY 2010-11 TO FY 2012-13 AND RETAIL TARIFF FOR FY 2011-12

14.1 This section contains a summary of the ARR and MYT Petition for the period FY 2010-11 to FY 2012-13 and retail tariff as filed by Chhattisgarh State Power Distribution Company Ltd (CSPDCL) with the Commission and the analysis by the Commission.

About CSPDCL

14.2 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. CSPDCL is the State Power Distribution Company and is responsible for distribution and retail supply of power within the State.

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

Table 194: Balance sheet for CSPDCL (Rs Cr) as on January 1, 2009

Particulars	Amount
Assets	
Gross Block	1,749.56
Less : Accumulated Depreciation	646.74
Net Fixed Assets	1,102.82
CWIP	806.52
Assets not in use	
Deferred Cost	
Intangible Assets	9.50
Investment	78.90
Investment in Subsidiary Company	
Net Current Assets	
Stock	29.24
Receivable against supply of power	1,166.24
Cash & Bank	23.11
Inter Company Receivable/Payable	(47.23)
Loans &Advances	394.57
Sundry Receivable	53.29
Total Current Assets	1,619.22
Less :	
Total Current Liabilities	
Security Deposits Consumers	463.22
Other Current Liabilities	1,034.33
Total Current Liabilities	1,497.55
Net Current Assets	121.67
Subsidy Receivable from Government	240.48
TOTAL ASSETS	2,359.89
Liabilities	

Particulars	Amount
Borrowings of Working Capital	149.03
Payments due on Capital Liabilities	82.66
Capital Liabilities	
Funds from State Government	
(A) Loan	
(B) Equity Capital	214.94
Total funds from State Govt.	
Contributions, Grants and Subsidies towards Cost of Capital Assets	91.03
Reserves and Reserve Funds	1,822.23
Surplus (+ Equity Adjustment)	*1,913.26*
Sub Total Shareholder's Equity	
TOTAL LIABILITY	**2,359.89**

Operational Performance

Distribution Network

14.4 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 195: Additions to the Distribution Network

Particulars	FY 08 (Actual)	FY 09 (Actual)	FY 10 (Actual)	FY 11 (Proj)	FY 12 (Proj)	FY 13 (Proj)
Length of lines (ckt-km)						
- 33kV	1110.52	1136.74	507.55	1570.00	1477.00	1250.00
- 11kV	2618.73	5203.56	4508.79	9414.00	6582.00	1330.00
- LT	9209.50	11022.98	9765.01	8431.00	10209.00	3000.00
Total	**12938.75**	**17363.28**	**14781.35**	**19415.00**	**18268.00**	**5580.00**
Number of 33/11kV substations	86.00	35.00	33.00	73.00	65.00	60.00
No. of Power Transformers	101.00	61.00	58.00	103.00	95.00	85.00
Total MVA capacity of power transformers	328.00	250.00	203.00	419.72	387.13	346.38
Number of Distribution Transformers	4274.00	7244.00	5950.00	4723.00	3620.00	2800.00
Total MVA capacity of Distribution Transformers	457.00	598.00	386.00	338.00	280.00	246.00

Sales Profile

14.5 An overview of the sales, as submitted by the company, is given in the Table 196 below:

Table 196: LV Sales (MUs) from FY 2004-05 to FY 2009-10

Consumer Categories		2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Prov	2008-09 Prov	2009-10 Prov
LV-1	BPL Consumers	141	258	304	329	310	729#
LV-1	Other Domestic	1058	1162	1236	1461	1607	1841
LV-2	Non Domestic	235	270	288	337	376	436
LV-3.1	Agriculture Metered	5	15	21	22	49	545
LV-3.2	Agriculture Flat Rate	261	430	565	751	1097	1145#
LV-4	Agriculture Allied Services	0	0	0	5	6	9
LV-5	LV Industrial	328	357	374	399	400	416

		2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
LV-6	Public Utilities (PWW & SL)	95	109	109	121	125	144
LV-7	Temporary	92	136	110	76	97	109
	Sub Total – LV	**2,215**	**2,737**	**3,007**	**3,500**	**4,068**	**5,375**

BPL and Agricultural Sales as recorded in R-15 format

Table 197: EHV Category wise Sales (MUs) from FY 2004-05 to FY 2009-10

Consumer Categories		2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Prov	2008-09 Prov	2009-10 Prov
EHV-1	Railway Traction	586	617	653	652	701	697
EHV-2	Heavy Industries	1514	1588	1445	1735	1831	696
EHV-3	Steel Industries	70	81	108	125	143	184
EHV-4	Coal Mine, Cement & Other EHV Industries	446	468	426	511	505	324
	Sub Total - EHV	**2,616**	**2,753**	**2,632**	**3,022**	**3,180**	**1,901**

Table 198: HV category-wise Sales (MUs) from FY 2004-05 to FY 2009-10

HV Categories		2004-05 Actual	2005-06 Actual	2006-07 Actual	2007-08 Prov	2008-09 Prov	2009-10 Prov
HV-1	Steel Industries	1188	1371	1838	2121	2140	2,708
HV-2	Coal Mines & Cement Ind.	181	189	172	207	361	247
HV-3.1	Other HT Industries	559	385	462	408	424	403
HV-3.2	Other HT Industries	20	14	17	15	19	21
HV-4.1	Low Load Factor Industries	0	66	81	82	82	79
HV-4.2	Low Load Factor Industries	0	1	1	1	1	1
HV-5.1	Residential Purpose	94	233	220	231	236	222
HV-5.2	Residential Purpose	2	4	4	4	3	4
HV-6.1	General Purpose Non Industrial	194	107	111	144	183	214
HV-6.2	General Purpose Non Industrial	68	38	39	50	61	67
HV-7.1	Public Water works & Irrigation	26	25	28	25	25	26
HV-7.2	Public Water works & Irrigation	10	10	10	10	14	15
HV-8.1	Start Power	0	0	0	8	116	8
HV-8.2	Start Power	0	0	0	0	0	10
HV-8.3	Start Power	0	0	0	0	0	5
HV	Temporary Supply	0	0	0	17	4	9
HV	Temporary Supply	0	0	0	4	0	5
	Sub Total – HV	**2,342**	**2,444**	**2,983**	**3,327**	**3,670**	**4,044**

MYT Filing and Technical Validation

14.6 CSPDCL filed the MYT Petition for determination of ARR and Tariff for Control Period FY 2010-11 to FY 2012-13 on October 18, 2010. On initial scrutiny of the MYT petition, several discrepancies and additional information requirement were identified by the Commission and sent to CSPDCL and after compliance the petition was admitted on December 16, 2010.

14.7 Technical Validation Sessions (TVS) were held on January 20, 2011 and subsequently which were attended by the staff of the Commission, officers of CSPDCL, and consultants of both CSPDCL and the Commission. During the discussions, CSPDCL was advised to furnish additional data, which were considered material for examination of the ARR and tariff, such as:

i) Asset category wise calculation of depreciation for CSEB from FY 2005-06 to FY 2008- 09 is required. Moreover, the depreciation rates used for calculation of depreciation for FY 2008-09 (Q4) by CSPDCL is not clear. Detailed calculation of the same should be provided.

ii) The details/proof of the actual income tax paid by CSEB in FY 2005-06 to FY 2008- 09 is required.

iii) In Schedule 9 (Employee Expenses), is the amount under Item No 7 - Interim Relief/Wage Revision, a provision or is it the actual funds paid out on account of wage revision?

iv) In Schedule 9 (Employee Expenses), does the amount under Item no 20 - Terminal Benefits, include pension payments made to employees for the year? If yes, then the amount of pension payments and amount of funds transferred to the Pension Fund should be specified separately for each financial year.

v) For FY 2008-09, Rs 183 Cr has been submitted as pension and gratuity till Dec'08. Whereas, in Q4 of FY 2008-09, CSPGCL, CSPTCL and CSPDCL have submitted Rs 59 Cr, Rs 23 Cr and Rs 139 Cr as pension and gratuity respectively, which totals to Rs 221 Cr in only one quarter. The high expenditure under this head should be justified.

vi) The actual employee expenses for CSEB for FY 2005-06 at Rs 636 Cr are substantially higher than the approved employee cost of Rs. 470 Cr. Reasons for the same should be given.

vii) The actual A&G expense for CSEB for FY 2005-06 at Rs 89 Cr is substantially higher than the approved A&G cost of Rs. 56 Cr. Reasons for the same should be given.

viii) In Schedule 8 (A&G Expenses), please provide the breakup of amount spent under item 7 (E) contributions.

ix) Total A&G expenses for FY 2008-09 have increased from Rs 66.1 Cr for the entire year in FY 2007-08 to Rs 105 Cr (9 months of CSEB and total of Q4 expenses of three successor companies) in FY 2008-09. Reason for the same should be provided.

x) In Schedule 12 (Interest and Finance Charges), it is noted that the interest paid on state govt loans @ Rs 132 Cr in FY 2005-06 is higher than the interest payment in the previous or succeeding year. The utility should provide a reason for the same.

xi) In Schedule 6 (Power Purchase Cost) are the given UI charges net off UI income?

xii) Actual/Provisional Accounts for FY 2008-09, FY 2009-10 and actual information for first six months of FY 2010-11

xiii) A copy of Draft FRP submitted to GoCG for allocation of Assets and Liabilities of the erstwhile CSEB to successor entities

xiv) At present there are three time blocks viz. Peak, Normal and Off Peak period for tariff calculation by CSPDCL. However, it has been proposed by CSPDCL to have only two time blocks viz. Peak and Normal Period for the MYT Control period. CSPDCL was asked to provide rationale for the same.

xv) CSPDCL was asked to provide the actual details of source-wise quantum of power purchase and the power purchase rate (per unit) for FY 2008-09, FY 2009-10 and first six months of FY 2010-11, in format R4.

xvi) CSPDCL was asked to provide copies of one year power purchase bills for any one CGS TPP, one CGS HEP, one IPP and one CPP for FY 2008-09 and FY 2009-10.

xvii) CSPDCL was asked to provide actual details of category-wise and slab-wise number of consumers, connected load and consumption data for FY 2008-09, FY 2009-10 and for first six months of FY 2010-11.

xviii) CSPDCL was asked to provide details of current allocation from Central Generating Power Stations (both firm allocation and CSPDCL's share in unallocated capacity of Central Generating Power Stations) for FY 2008-09, FY 2009-10 and FY 2010-11.

xix) CSPDCL was asked to provide scheme-wise break up of GFA addition and details of capitalization for FY 2008-09, FY 2009-10 and FY 2010-11.

xx) CSPDCL was asked to provide details of category-wise and slab-wise revenue for FY 2008-09, FY 2009-10 and FY 2010-11 as per formats R 12 and R13.

xxi) CSPDCL was asked to provide asset wise calculations of depreciation charge as per Format F7 as claimed in the ARR for FY 2008-09 and FY 2009-10.

xxii) CSPDCL had calculated the depreciation for FY 2008-09 and FY 2009-10 using the rates as per the CSERC MYT Regulations, 2010 that will be applicable only from FY 2010-11. The licensee was asked to recalculate the depreciation as per the rates specified in CSERC Tariff Regulations 2006 and submit the same.

xxiii) The value of sales for HV3.1 for FY 2009-10 submitted was different in table 67 and table 73. CSPDCL was asked to resolve the discrepancy.

xxiv) CSPDCL had submitted Rs 257 Cr as Pension and Gratuity amount for FY 2009-10. It was asked to clarify whether this entire amount pertained to contribution towards the Pension fund or whether it included pension paid out to employees in FY 2009-10 as well?

xxv) A calculation error was pointed out in computation of the final sales for HV-1: Steel Industry category. Escalating sales by 10% and then adding new consumer's sales was not giving the sales figure as mentioned in the petition. The utility was asked to inform the Commission of any changes in the funding of the capital expenditure as approved in the Business Plan, including any additional grant/subsidy received/to be received from the government.

xxvi) CSPDCL was asked to clarify the amount of capitalisation proposed during the MYT period.

xxvii) CSPDCL had given discounts to consumers on timely bill payment and has included it as an expense in the ARR. CSPDCL was asked to confirm that this amount has not already been deducted from the Revenue from sale of power submitted for the year.

xxviii) CSPDCL was asked to provide the actual details regarding the new loans (including rate of interest) drawn in FY 2010-11. It was also asked to provide the loan details for schemes to be implemented in FY 2011-12, for which DPR has been approved and financing arrangements have been made.

xxix) CSPDCL was asked to give the actual rate of interest being charged on existing loans, and submit loan agreements for loans taken from REC and the State Government.

xxx) CSPDCL was asked to furnish the following information with respect to pension and gratuity fund of erstwhile CSEB:

i. Year wise Amount Invested in Terminal Benefits fund till FY 2009-10

ii. Total Corpus available in Terminal Benefits fund as on March 31, 2010

iii. Income earned from Terminal Benefits fund

iv. Year wise terminal benefits liability met from Terminal Benefits Fund

v. Terminal Benefits expenses considered separately for meeting the expenses outgo in FY 2007-08, FY 2008-09 and FY 2009-10.

xxxi) CSPDCL was asked to provide the Report Regarding Segregation of Revenues between CSPDCL and the State Trading Company.

xxxii) The amount under the head of non tariff income submitted in the petition and appearing in the provisional accounts of FY 2009-10 being different, CSPDCL was asked to resolve the discrepancy.

Brief note on Public Hearing

14.8 CSPDCL issued public notice in the leading newspapers of the State inviting suggestions/comments/objections from the public on its MYT Petition for determination of ARR and Tariff for Control Period FY 2010-11 to FY 2012-13 on December 31, 2010. The Commission held the common public hearings for petitions filed by all three successor companies during the period February 4-18, 2011 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 past years

14.9 The Commission has carried out the truing up for FY 2005-06 to FY 2008-09 for the erstwhile CSEB and for FY 2009-10 for the successor companies. 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 for CSPDCL which has been adjusted while determining ARR for future years. The details of the truing up are contained in the sections dealing with true up in this order.

Annual Revenue Requirement (ARR) for Control Period (FY 2010-11 to FY 2012-13)

Category-wise Sales Forecast – LV Sales

A) Domestic Consumers

BPL consumers

14.10 CSPDCL has submitted that at the end of FY 2009-10, it had 10.59 lakh BPL consumers. Further, CSPDCL has planned an addition of approximately 3.8 lakh BPL connections over the MYT control period starting from FY 2010-11 to FY 2012-13. CSPDCL would be providing 1.9 lakh, 1.4 lakh and 0.5 lakh BPL connections in FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

14.11 CSPDCL has made the following assumptions to forecast the sales in BPL category:

- In case of existing BPL consumers, the average consumption for 40% of consumers is projected at 80 units/connection/month and for the remaining 60% connections the average consumption is projected at 50 units/connection/month.
- As directed by the Commission, BPL consumers whose consumption is projected to be 80 units per month are to be migrated to LV-1: Other Domestic Category in a phased manner during the control period. After noticing recorded consumption of individual consumers, CSPDCL has planned to migrate 35% of such consumers in FY 2010-11, 35% in FY 2011-12 and the remaining 30% in FY 2012-13.
- An average consumption of 50 units per month has been considered by CSPDCL for all new BPL connections.

14.12 Based on the above assumptions CSPDCL had projected BPL sales at 904 MU, 845 MU and 753 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively in its petition. However, there was a calculation error in the calculation of the above sales and CSPDCL submitted a revised sales estimate of 760 MU, 701 MU and 609 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Other Domestic Consumers

14.13 CSPDCL has projected sales to the Other Domestic Category considering a growth rate of 8% during the MYT control period. It has also taken into consideration the additional consumption due to the migration of BPL consumers to this category. Based on the above assumptions, the sales projected to Other Domestic Category are 2131 MU, 2444 MU, 2761 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.14 From FY 2011-12 onwards, the Commission has decided to discontinue the separate category for BPL consumers. 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. However, all BPL card holders shall be entitled for subsidy as per Government of Chhattisgarh Order for 30 units per month. Each BPL card holder will be eligible for the subsidy irrespective of their consumption or connected load. Since there shall now be only one tariff category for all domestic cosnumers, the Commission has decided to give a combined sales forecast for the MYT control period for these two categories of domestic consumers.

14.15 During the technical validation sessions CSPDCL was asked to provide the actual number of BPL connections released by it during FY 2010-11. CSPDCL submitted that it has released 18,608 BPL connections during first half of the year as against the target of 1.9 lakh connections for FY 2010-11 that it had submitted in the tariff petition. In FY 2009-10 also CSPDCL had projected that it would release 2.4 lakh BPL connections against which it actually released only 67,915 connections. The difference between the projected and the actual release of connections is very high and clearly indicates that the projections made by CSPDCL are not based on ground realities. For the purpose of this order, the Commission has therefore decided to project the sales to BPL consumers based on the long term growth rate (7%) of BPL sales as recorded in Form R15. The actual sales to the category shall be trued up during the Annual Performance Review for the respective years.

14.16 The Commission has considered a growth rate of 8% for projection of sales to other consumers in the domestic category based on the long term growth trend in sales. The sales to the domestic category (including BPL) have thus been approved at 2765 MU, 2979 MU and 3190 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

B) Non-Domestic Consumers

14.17 CSPDCL has considered a conservative growth rate of 8% during the MYT control period. Based on the above assumptions, the projected energy consumption for Non-Domestic category has been projected as 471 MU, 509 MU and 550 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.18 The Non-Domestic category has recorded a 5-year CAGR of 13.18%. 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 13.18% against the growth rate of only 8% as assumed by CSPDCL and has accordingly projected sales for Non-Domestic category as 494 MU, 559 MU and 632 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

C) Agriculture Consumers

14.19 CSPDCL has projected that 10,000 new connections will be released during FY 2010-11 and 30,000 will be released in each subsequent year during the MYT control period.

14.20 CSPDCL has submitted that since it has now achieved 100% metering of all its agricultural consumers during FY 2009-10, it has estimated the average agricultural consumption at 166 units/HP/month based upon the actual consumption recorded in R-15 formats in FY 2009-10. The consumption during July'09-March'10 has been considered for the calculation of average consumption as most of the agricultural consumers were metered during this period.

14.21 CSPDCL has made the following assumptions to forecast the sales in Agriculture category:

- An average load of 4 HP is considered for existing as well as new connections. The total number of Agricultural connections at the end of FY 2009-10 was 2.19 lakhs.
- An average consumption of 166 units/HP/month has been considered to estimate the consumption during the MYT period.

14.22 Based on the above assumption, the sales projected for Agricultural consumers (in MUs) during the MYT control period are 1828 MU, 2067 MU and 2306 MU in FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

14.23 Sales to the Agriculture Allied category have been projected considering a nominal growth rate of 10%.

Commission's View

14.24 The Commission in its tariff order for FY 2009-10 had considered a load factor of 25.34% (or 138 units/HP/month) for projecting sales based on the preliminary results of the line loss study carried out by M/s SNC Lavalin.

14.25 CSPDCL has now submitted that it has completed 100% metering of all agriculture connections and has calculated the average consumption to be 166 units/HP/month based on the consumption for the period July 2009 to March 2010 in which the majority of the connections were metered. This average seems to be on the higher side since the sales for the entire year have not been included in this average. However, the Commission has provisionally considered the same for projection of sales to Agriculture consumers and may consider the same suitably on the basis of the actual average sales for the entire year that are realised in FY 2010-11.

14.26 The Commission has also considered the number of new connections to be added each year as submitted by CSPDCL and has thus approved the sales for the agriculture category as projected by CSPDCL.

14.27 Sales to Agriculture Allied Services have been projected considering the nominal growth rate of 10% as considered by CSPDCL.

D) LV Industrial Consumers

14.28 The LV industrial category has recorded a 5-year CAGR of 4.89% 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 during the MYT control period are 438 MU, 460 MU and 482 MU in FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.29 The Commission considers the projections made by CSPDCL as reasonable and accepts the sales projected by CSPDCL for this category.

E) Public Utilities

14.30 The Public Utilities category comprising of street lights and public water works has recorded a 5-year CAGR of 8.68%. However, CSPDCL has considered a growth rate of 5% during the MYT control period. Based on the above assumptions, the sales projected for Public Utilities during the MYT control period is 151 MU, 159 MU and 167 MU in FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.31 The Commission considers the projections made by CSPDCL as reasonable and accepts the sales projected by CSPDCL for this category.

F) ***LV Temporary Supply***

14.32 CSPDCL has considered the growth rate of 1.32% for sales projection based on the 5-year CAGR. The sales projected to LT Temporary category during the MYT control period are 111 MU, 112 MU and 114 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.33 The Commission calculated the 5 year CAGR for the category as 3.34% based on the sales data submitted by CSPDCL and has used the same for projecting the sales to temporary connections. The sales projected in LT Temporary category during the MYT control period are projected as 112 MU, 116 MU and 119 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Category-wise Sales Forecast – EHV Sales

A) EHV Railway Traction

14.34 CSPDCL has considered a growth rate of 4.4% for sales projection during the MYT control period and has projected sales for Railway Traction category during the MYT control period as 729 MU, 763 MU and 798 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.35 The Commission has considered a nominal growth rate of 5% for projection of sales to this category on the basis of the past trend in sales to this category and commensurate with the increase in this category's load projected by CSPDCL. Accordingly, the sales to this category have been projected as 733 MU, 771 MU and 811 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

B) EHV Heavy Industries

14.36 CSPDCL has submitted that there are primarily three consumers namely BALCO, Bhilai Steel Plant (BSP) and Essar Industries in this category. The sales in this category declined in FY 2009-10 and are projected to increase slowly due to a number of factors. BSP has already commissioned its own captive power plant as a result of which its power requirement has been reduced by 50%. Further, Essar Industries has closed down its operations and hence no demand is expected from this consumer from FY 2010-11 onwards. For the third consumer i.e. BALCO, CSPDCL has assumed a nominal growth rate during the MYT control period. Based on the above assumptions, the sales projected to this category are 559 MU, 570 MU and 581 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.37 The Commission after thorough scrutiny have estimated the sales of EHV Heavy Industry at 598 MU, 661 MU and 738 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively considering the arrival of construction power for NMDC steel plant in Bastar.

C) EHV Steel Industries

14.38 CSPDCL has submitted that the steel industry has recorded a 5-year CAGR of 27%. 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 4%.

14.39 Further, CSPDCL has also projected sales for the new consumers expected to be added during the MYT control period based on applications received so far. It has assumed that 50% of the load for new consumers will come up in the ensuing year and the rest 50% in the next year. 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.

14.40 Based on the above assumptions, the sales projected in this category are 312 MU, 444 MU and 462 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.41 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%. The growth rate considered by CSPDCL seems to unreasonably low considering the past trend. The Commission has considered a higher growth rate of 10% for projecting sales of existing consumers.

14.42 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.

14.43 Based on the above, the sales projections in this category are approved at 268 MU, 449 MU and 539 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

D) EHV Coal Mines, Cement and Other Industries

14.44 EHV-4 category has recorded a negative CAGR especially because of lower consumption in FY 2009-10. CSPDCL has considered a growth rate of 3% for sales projection purpose.

14.45 Further, existing consumers as well as new consumers have requested for supply during FY 2010-11 and FY 2011-12. Some new connections have already been released to applicants during this year i.e. FY 2010-11. It is assumed that the new connections to the existing/new consumers that have not been provided till now (September, 2010) will be provided in the next year, i.e. FY 2011-12. 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.

Based on the above assumptions, the sales projected in this category are 460 MU, 1145 MU and 1180 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.46 The Commission has considered 3% growth rate for sales from existing consumers as projected by CSPDCL. 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 several of the planned additions to the load, especially for FY 2011-12 and FY 2012-13, 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.

14.47 Based on the above assumptions, the sales projected to this category are 460 MU, 674 MU and 792 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Category-wise Sales Forecast – HV Sales

A) HV Steel Industries

14.48 The Steel Industries category has recorded a 5-year CAGR of 23%. CSPDCL has considered a nominal growth rate of 10% for the projections.

14.49 Further, it has also projected sales to new consumers that are expected to be added during the MYT control period. Some new connections have already been released during FY 2010-11. CSPDCL has assumed that the connections to the existing/new consumers that have not been provided till September, 2010 will be provided in FY 2011-12. It is also assumed that recently released connections 50% of the load will come up in the ensuing year and the rest 50% in the next year. A load factor of 0.5 and power factor of 0.9 is assumed to estimate the total energy requirement (in MU) from these new applications.

14.50 Based on the above assumptions, the sales projected in this category are 3207 MU, 3601 MU and 3961 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.51 The Commission noticed that due to some calculation error the sales were projected incorrectly by CSPDCL for this category. The Commission has considered the methodology used by CSPDCL for projection purposes but it has recomputed the sales as per the given assumptions and has accordingly estimated the sales to this category as 3219 MU, 3687 MU and 4055 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

B) HV Coal Mines & Cement Industries

14.52 CSPDCL has submitted that sales to this category have recorded a 5-year CAGR of 7%. CSPDCL has considered a more reasonable growth rate of 5% for projection purpose.

14.53 Further, it has also projected sales to new consumers that are expected to come during the MYT control period. It has assumed that 50% of the load for new applications will come up this year i.e. FY 2010-11 and the remaining 50% in the next year. 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. Based on the above assumptions, the sales projected in this category are 266 MU, 287 MU and 301 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.54 The Commission considers the projections made by CSPDCL as reasonable and has accepted the sales projected by CSPDCL for this category.

C) Other HV Industries

14.55 CSPDCL has submitted that this category has recorded a 5-year CAGR of -8% at 33kV level and 1% at 11 kV. As the state of Chhattisgarh is attracting many investors in recent years, CSPDCL has estimated that consumption in this category would grow in the forthcoming years and has considered a growth rate of 4% for 33kV category, and a growth rate of 5% at 11kV level. Accordingly, it has estimated energy sales (in MU) at 415, 431, 449 at 33kV and (in MU) 22, 23, and 24 at 11kV for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.56 The Commission has considered the nominal growth rate of 4% used by CSPDCL for projecting sales at 33kV and accepts the year wise consumption as projected by CSPDCL. Regarding the sales at 11kV the Commission has noticed that while the 5 year CAGR of sales to this category is only 1%, the sales to this category have increased rapidly in the last two years and have registered an year-on-year growth rate of 26% and 11% in FY 2008-09 and FY 2009-10 respectively. The Commission has therefore projected sales for this category at 24 MU, 28 MU and 32 MU considering a growth rate of 15%.

D) Low Load Factor Industries

14.57 CSPDCL has projected that consumption in this category would continue to grow at the rate of 5% for both 33kV and 11kV level considering the past trend. The sales projected for Low Load Factor Industries are 84 MU, 88 MU and 93 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.58 The Commission considers the projections made by CSPDCL as reasonable and has accepted the sales projected by CSPDCL for this category.

E) HV Residential Category

14.59 The HV-5 category has recorded a 5-year CAGR of 24% at 33kV level and 20% at 11 kV level where as 4 year CAGR growth rates comes to 0.5% and -10%. CSPDCL has considered a nominal growth rate of 5% for both 33kV and 11kV level. It has projected sales (in MU) for HT Residential Category as 233 MU, 245 MU, 257 MU at 33kV for FY 2010-11, FY 2011-12 and FY 2012-13 respectively and 4 MU at 11kV level for each year of the control period.

Commission's View

14.60 The Commission considers the projections made by CSPDCL as reasonable and has accepted the sales projected by CSPDCL for this category.

F) HV General Purpose Non Industrial

14.61 CSPDCL has submitted that this category has recorded a 5-year CAGR of 0% at 33kV level and 0% at 11 kV level. However, as new commercial complexes and shopping malls are expected to come up in the new Raipur region in next 3-4 years, it has projected a 10% growth rate at both 33kV and 11 kV level.

14.62 Further, it has also projected sales to new consumers that are expected to be added during the MYT control period by assuming that 50% of the expected load will come up in FY 2010-11 and the rest 50% in FY 2011-12. 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. Accordingly, CSPDCL has estimated energy sales as 267 MU, 351 MU and 386 MU at 33kV level and 78 MU, 85 MU and 94 MU at 11 kV level for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.63 The Commission considers the projections made by CSPDCL as reasonable and has accepted the sales projected by CSPDCL for this category.

G) Public Water Works and Irrigation

14.64 The HV-7 category has recorded a 5-year CAGR of -1% at 33kV level and 10% at 11 kV. CSPDCL has estimated no growth at 33kV level and has estimated a nominal growth of 5% at 11 KV level. Accordingly, CSPDCL has estimated energy sales (in MU) as 26, 26 and 26 at 33kV and (in MU) 16, 16 and 17 at 11kV for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.65 The Commission considers the projections made by CSPDCL as reasonable and has accepted the sales projected by CSPDCL for this category.

H) Start Up Power

14.66 CSPDCL has submitted that though during FY 2008-09, one of the IPPs namely Lanco Amarkanthak has availed start-up power from CSPDCL as a conservative approach no growth in the consumption has been considered for Start-Up Power during the MYT control period. The sales projected (in MU) for HT Start Up Power are 23 MU for each year of the control period.

Commission's View

14.67 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

14.68 CSPDCL has submitted that since the category was introduced only in FY 2009-10, actual consumption in this category is available only for one year. 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 are 4 MU, 5 MU and 6 MU in FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.69 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

14.70 No growth in the sales has been considered for temporary supply during the MYT control period and the sales in the category in FY 2009-10 (i.e.14 MU) have been considered as projected sales for each year of the MYT control period.

Commission's View

14.71 The Commission considers the projections made by CSPDCL as reasonable and has accepted the sales projected by CSPDCL for this category.

Overall Sales

14.72 The overall sales for FY 2010-11, FY 2011-12 and FY 2012-13 as submitted by the Petitioner and approved by the Commission is shown below

Table 199: Category-wise Sales (MUs)

Consumer Categories		Submitted			Approved		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
LV-1	Domestic	3035	3289	3513	2765	2979	3190
LV-2	Non Domestic	471	509	550	494	559	632
LV-3.1	Agriculture Metered	1,828	2,067	2,306	1,828	2,067	2,306
LV-4	Agriculture Allied Services	10	11	12	10	11	12
LV-5	LV Industrial	438	460	484	438	460	482
LV-6	Public Utilities (PWW & SL)	151	159	167	151	159	167
LV-7	Temporary	111	112	114	112	116	119
	Sub Total – LV	**6044**	**6607**	**7146**	**5797**	**6350**	**6908**
EHV-1	Railway Traction	729	763	798	733	771	811
EHV-2	Heavy Industries	559	570	581	598	661	738
EHV-3	Steel Industries	312	444	462	268	449	539
EHV-4	Coal Mine, Cement & Other EHV Industries	460	1145	1180	460	674	792
	Sub Total - EHV	**2060**	**2921**	**3021**	**2059**	**2555**	**2880**
HV-1	Steel Industries	3207	3601	3961	3219	3687	4055
HV-2	Coal Mines & Cement Ind.	266	287	301	266	287	301
HV-3.1	Other HT Industries	415	431	449	415	431	449
HV-3.2	Other HT Industries	22	23	24	24	28	32
HV-4.1	Low Load Factor Industries	83	87	92	83	87	92
HV-4.2	Low Load Factor Industries	1	1	1	1	1	1
HV-5.1	Residential Purpose	233	245	257	233	245	257
HV-5.2	Residential Purpose	4	4	4	4	4	4
HV-6.1	General Purpose Non Industrial	267	351	386	267	351	386
HV-6.2	General Purpose Non Industrial	78	85	94	78	85	94

Consumer Categories		Submitted			Approved		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
HV-7.1	Public Water works & Irrigation	26	26	26	26	26	26
HV-7.2	Public Water works & Irrigation	16	16	17	16	16	17
HV-8	Start Up Power	23	23	23	23	23	23
HV 9.1	Agricultural Allied Services	4	5	5	3	4	5
HV 9.2	Agricultural Allied Services	0	0	1	1	1	1
	Temporary Supply	9	9	9	9	9	9
	Temporary Supply	5	5	5	5	5	5
	Sub Total – HV	**4659**	**5199**	**5654**	**4673**	**5290**	**5758**
	Grand Total	**12763**	**14728**	**15821**	**12,530**	**14,195**	**15,546**

Transmission and Distribution Loss

Transmission Loss

14.73 CSPDCL for the purpose of projecting transmission loss during the MYT control period has considered a transmission loss of 4.60%, 4.55% and 4.50% for FY 2010-11, FY 2011-12 and FY 2012-13 respectively as per its petition.

Commission's View

14.74 The Commission has recalculated the transmission loss for FY 2009-10 for CSPTCL as 4.77% based on the energy input and output in the system. Based on the past performance of CSPTCL and the ground realities, the Commission has approved the transmission loss at 4.67%, 4.57% and 4.50% for FY 2010-11, FY 2011-12 and FY 2012-13 respectively for CSPTCL. The same has been considered to compute the energy requirement of CSPDCL.

Distribution Loss

14.75 CSPDCL in its tariff petition had submitted that the distribution loss was 41.52% and 39.28% in FY 2008-09 and FY 2009-10 respectively. CSPDCL has submitted that it plans to reduce distribution loss by 2% in each year of the control period. CSPDCL has also submitted that in the forthcoming years it has planned to release a sizeable number of new agricultural and BPL connections which may result into a higher distribution loss in the system. However, it has proposed to reduce losses by 2% each year by taking a number of loss reduction initiatives. Accordingly, the distribution loss proposed by CSPDCL is 37.28%, 35.28% and 33.28% for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.76 The Commission notes with concern that the past performance of CSPDCL in reducing distribution losses has been inconsistent. It is clear that despite various orders of the Commission, not much effort has been found to be made in controlling distribution losses. The distribution loss has increased abnormally in FY 2008-09.

14.77 CSPDCL has submitted distribution loss for FY 2008-09 as 41.52% and for FY 2009-

10 as 39.28%. During the technical validation held by the Commission an error was noticed in computation of distribution loss by CSPDCL. The actual distribution loss for FY 2009-10 was 35.38% as opposed to the figure of 39.28% as submitted in the tariff petition. The distribution loss of FY 2008-09 has already been addressed in Section 6 of this order. The distribution loss of 35.38% in FY 2009-10 is still higher than that approved by the Commission (34.32%) in its previous tariff order.

14.78 The reduction in distribution loss in FY 2009-10 as compared to FY 2008-09 has been as a result of the increase in recorded sales to agriculture and BPL categories as furnished by CSPDCL which is due to 100% metering of all consumers of the above mentioned categories achieved by CSPDCL in FY 2009-10.

14.79 Keeping in mind the ground realities and the past performance of CSPDCL in reducing distribution losses, the Commission has decided to approve the distribution loss at 34%, 32% and 30% for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

14.80 The Commission would like to emphasize that the target for distribution loss set by the Commission for the MYT control period is extremely reasonable and expects CSPDCL to meet the target for each year as above.

Collection Efficiency

14.81 CSPDCL has submitted that the collection efficiency of the state for the year FY 2009-10 has been achieved at 94.49%. HT collection efficiency of all the circles is above 90% except O&M Circle and Jagdalpur. LT Collection efficiency of all the circles is above 90%. It has however not specified any target for collection efficiency for the MYT control period.

Commission's View

14.82 On scrutiny of the circle-wise statement submitted by CSPDCL, the Commission has observed that the collection efficiency based on current demand for FY 2009-10 was 92.29% for HT collection and 90.9% for LT collection.

14.83 The Commission has further observed that the arrears outstanding against HT collection pertain to govt. or are under litigation. Therefore it will not be appropriate to set collection efficiency targets for HT collection.

14.84 However, there is ample scope for improvement in LT collection and thus the Commission has decided to fix target for improvement of collection efficiency by 2% in FY 2011-12 over and above the collection efficiency of base year of FY 2009-10 or the actual collection efficiency of FY 2010-11, whichever is higher and subsequent improvement of 2% for FY 2012-13 above the target so arrived for FY 2011-12.

Energy Input Requirement

14.85 The projected Gross Energy Requirement for the MYT control period is as given in the Table 201 below.

Table 200: Gross Energy Requirement during MYT Control Period (MUs) submitted by CSPDCL

Particulars	Unit	2010-11	2011-12	2012-13
LV Sales	MUs	6044	6607	7146
HV Sales	MUs	4659	5199	5654
Total Sales below EHV Level	MUs	10702	11806	12800
Distribution Losses	**%**	37.28%	35.28%	33.28%
Distribution Losses	MUs	6361	6436	6385
Energy Requirement at Distribution Periphery below EHV Level	MUs	17064	18242	19184
Less: Input to Distribution System at 33 kV	MUs	814	814	814
Net Energy Required from Other Sources at Distribution Periphery	MUs	16250	17428	18370
Sale at EHV Level	MUs	2060	2921	3021
Total Energy Required at Distribution Periphery above EHV Level	MUs	18310	20350	21391
Transmission Loss	%	4.60%	4.55%	4.50%
Transmission Loss	MUs	883	970	1008
Net Energy Required at Transmission Periphery	**MUs**	19193	21320	22399
Gross Energy Required including input at 33kV	**MUs**	**20007**	**22134**	**23213**

Commission's View

14.86 The Commission has projected CSPDCL's Gross Energy Requirement based upon its sales projection and distribution and transmission loss reduction trajectories approved for the MYT control period.

14.87 It has also considered the generation input at 33 kV including injection by State Hydro Plants and Biomass suppliers. The input by biomass suppliers has been taken equal to the actual level of input in FY 2009-10. The generation from state hydro plants has been taken as per the generation approved for the same in the CSPGCL order.

Table 201: Gross Energy Requirement during MYT Control Period (MUs) approved by the Commission

Particulars	Unit	2010-11	2011-12	2012-13
LV Sales	MUs	5797	6350	6908
HV Sales	MUs	4673	5290	5758
Total Sales below EHV Level	MUs	10470	11640	12666
Distribution Losses	%	34%	32%	30%
Distribution Losses	MUs	5394	5478	5428
Energy Requirement at Distribution Periphery	MUs	15864	17117	18094
Less: Input to Distribution System at 33 kV (hydro/biomass)	MUs	580	628	628
Net Energy Required from Other Sources at Distribution Periphery	MUs	15285	16490	17467
Sale at EHV Level	MUs	2059	2555	2880
Total Energy Required at Distribution Periphery above EHV Level	MUs	17344	19045	20347
Transmission Loss	%	4.67%	4.57%	4.50%
Transmission Loss	MUs	850	912	959
Net Energy Required at Transmission Periphery	**MUs**	**18193**	**19957**	**21305**
Energy Required including input at 33kV	**MUs**	**18773**	**20584**	**21933**

Energy Availability and Power Purchase from Long Term Sources

Sources of Power

14.88 CSPDCL has following existing primary sources of firm power on long term PPA basis, viz.,

- CSPGCL
- Central Generating Stations (CGS) including NSPCL
- Renewable Sources
- JSPL

Power Purchase from CSPGCL

14.89 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. CSPDCL has projected the energy available and power purchase cost from CSPGCL as per the MYT petition of CSPGCL. It has accordingly projected 11943 MU, 11985 MU and 11963 MU of power purchase at a total cost of Rs 2337 Cr, Rs 2398 Cr and Rs 2334 Cr from CSPGCL for FY 2010-11, FY 2011-12 and FY 2012-13.

Commission's View

14.90 The Commission has approved the total power purchase quantum and cost from CSPGCL stations, including thermal, hydro and cogeneration stations, as per the net generation and average per unit rate approved by it for CSPGCL for each year of the MYT control period. The power available from CSPGCL stations during FY 2010-11 is based on the actual net generation observed during the first 11 months of the year. For FY 2011-12 and FY 2012-13 power purchase from CSPGCL is as per the approved normative net generation. The per unit power purchase cost for CSPGCL has not been revised by the Commission for FY 2010-11 and increase in generation tariff has only been given effect from FY 2011-12 onwards.

Table 202: Power Purchase from CSPGCL approved by the Commission

Particulars	2010-11			2011-12			2012-13		
	Purchase (MU)	Rate (Rs/unit)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/unit)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/unit)	Amount (Rs Cr)
CSPGCL	12783	1.44	1840.8	11986	1.92	2300.7	11964	1.88	2250.0

Power Purchase from Central Generating Stations (CGS)

14.91 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 NSPCL. The firm and inform allocation considered by CSPDCL from the CGS during the MYT control period is shown in Table 203 below. As can be seen from the table, an additional allocation of 25 MW is available to CSPDCL during FY 2010-11, from NSPCL and the same has not been projected to be available during FY 2011-12 and FY 2012-13.

14.92 The projected generation from CGS Plants during the MYT control period has been computed by CSPDCL based on the projected parameter of PLF (35% PLF for Hirakund, 85% PLF for all other generating plants) and inter-state transmission losses of 5.59%.

14.93 Accordingly, CSPDCL has projected to purchase 6297 MU , 6853 MU and 7584 MU of power from the CGS at a cost of Rs 1098 Cr, Rs 1230 Cr and Rs 1388 Cr for FY 2010-11, FY 2011-12 and FY 2012-13.

Commission's View

14.94 The Commission has considered firm and infirm allocation of power from the existing Central Generating Stations for all three years of the MYT control period as per the submission of CSPDCL. The additional allocation of 25 MW that is available to CSPDCL from NSPCL has been considered only for FY 2010-11 and not during FY 2011-12 and FY 2012-13 as per the projections of CSPDCL.

14.95 In its petition, CSPDCL has also considered allocation from new Central Generating Stations, namely Seepat (SSTPS II) and KSTPS for all three years of the control period. As per the latest available information, power from both these stations was not available to CSPDCL during FY 2010-11. The Commission has thus not considered any allocation from these sources for FY 2010-11. It has only considered the allocation from these two stations during FY 2011-12 and FY 2012-13 as per the submission of CSPDCL.

Table 203: Capacity Available from CGS during the MYT Control Period (MW)

S. No	Generation Station	Submitted			Approved		
		2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
1	KSTPS (Firm Power)	210	210	210	210	210	210
2	Tarapur (Firm Power)	48	48	48	48	48	48
3	Vindhyachal Stage III	105	105	105	105	105	105
4	Hirakund	2	2	2	2	2	2
5	SSTPS - I	158	158	158	158	158	158
6	Kahalgaon Stage II	20	20	20	20	20	20
7	SSTPS - II	104	208	312		208	312
8	KSTPS	175	175	175		175	175
9	NSPCL	75	50	50	75	50	50
	Total	**897**	**976**	**1080**	**618**	**976**	**1080**

14.96 The Commission has considered the actual energy available from the existing CGS stations in FY 2009-10 for projecting the energy available from these stations during the MYT control period.

14.97 The inter-state transmission losses for the western region have been considered at 4.87% as per the latest available data from the SLDC. The Commission has considered the average of inter-state transmission loss from February 2010 to February 2011 for the western region for computation of the inter-state transmission loss.

14.98 The projected energy available from the new CGS stations and NSPCL has been computed using the methodology proposed by CSPDCL and using the inter-state transmission loss at 4.87%.

Table 204: Energy Available from CGS Plants during the MYT Control Period (MU)

Generation Station	Submitted			Approved		
	2010-11	2011-12	2012-13	2010-11	2011-12	2012-13
Existing CGS stations outside the state	3809	3810	3810	4258	4258	4258
SSTPS - II	731	1462	2193	0	1473	2210
KSTPS	1230	1230	1230	0	1240	1240
NSPCL	527	351	351	531	354	354
Total	**6297**	**6853**	**7584**	**4789**	**7325**	**8062**

14.99 The Commission has computed the power purchase cost of power procured from CGS by considering the average power purchase cost of all CGS, including NSPCL, in 2009-10. It has also allowed an escalation of 2% per annum in the average power purchase cost from CGS in FY 2011-12 and FY 2012-13 as submitted by CSPDCL considering the expected increase in the average power purchase cost due to procurement of power from new CGS. The approved power purchase cost of CGS has been shown in the Table 205 below.

Table 205: Power Purchase from CGS approved by the Commission

Particulars	2010-11			2011-12			2012-13		
	Quantum (MU)	Rate (Rs/unit)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/unit)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/unit)	Amount (Rs Cr)
CGS Stations	4789	1.78	852.5	7325	1.82	1330.0	8062	1.85	1493.0

Power Purchase from JSPL

14.100 CSPDCL in its petition has not shown any power available to it from JSPL during the control period. However, during the TVS it admitted that it was drawing power from JSPL under a PPA which is valid till October 2011.

Commission's View

14.101 Besides CGS and CSPGCL, CSPDCL also has a long term PPA with M/s Jindal Steel and Power Limited (JSPL). The PPA is however valid only till October 2011. The Commission has thus considered power from JSPL to be available to CSPDCL till October 2011 after which its availability shall be subject to renewal of the PPA. The quantum of power purchased from JSPL in FY 2009-10 i.e. 945 MU has been considered to project the quantum of power available from JSPL. Accordingly, the Commission has projected power available from JSPL as 945 MU in FY 2010-11 and 565 MU in FY 2011-12.

14.102 The Commission has computed the power purchase cost of power procured from JSPL by considering the average power purchase cost of the same in 2009-10.

Table 206: Power Purchase from JSPL approved by the Commission

Particulars	2010-11			2011-12			2012-13		
	Quantum (MU)	Rate (Rs/unit)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/unit)	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/unit)	Amount (Rs Cr)
JSPL	945	2.29	216.5	565	2.29	131.9	-	-	-

Power Purchase from Renewable Sources

14.103 The Commission has also considered power purchase by CSPDCL from renewable sources including Biomass, Solar and 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 207 below:

Table 207: 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%

14.104 The quantum of power purchase from renewable sources has been taken as per the renewable purchase obligations as stated above. 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.

14.105 The weighted average rate of power purchase from Biomass generators has been considered at Rs 4/unit as per the order of the Commission.

The rate of solar power 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.

The rate of power from hydel sources has been considered as per the CERC order of November 9, 2010. An average of the rate specified by CERC for Small Hydro Power Project below 5 MW and for Small Hydro Power Project between 5 MW to 25 MW i.e. Rs 4.17/unit has been considered as the cost of power purchase from hydel sources. The

Table 208 below contains summary of the power purchase obligation from renewable sources.

Table 208: Power Purchase from Renewable Sources* Approved by the Commission

Particulars	2010-11			2011-12			2012-13		
	Quantum (MU)	Rate (Rs/unit	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/unit	Amount (Rs Cr)	Purchase (MU)	Rate (Rs/unit)	Amount (Rs Cr)
Biomass	698	4.00	279.1	737	4.00	294.8	788	4.00	315.1
Solar	47	3.49	16.4	51	3.49	18.0	110	3.49	38.3
Others	141	4.17	58.9	192	4.17	79.8	264	4.17	109.7
Total	886	-	354.4	980	-	392.6	1162	-	463.1

* excluding power purchased from small hydro and biomass stations of CSPGCL

Demand Requirement, Energy Balancing and Short Term Power Purchase

14.106 CSPDCL has submitted that the estimated capacity available (long term power purchase agreement) is not adequate to meet the estimated peak demand requirement of CSPDCL which has been projected by CSPDCL at 3216 MW, 3441 MW and 3682 MW for FY 2010-11, FY 2011-12 and FY 2012-13 respectively. CSPDCL has projected that it will procure additional power through short term power purchase agreement with IPPs and/or CPPs at the cost of Rs 3.10/unit escalated by 2% each year. The energy available from short term power contracted has been calculated assuming that the power contracted shall be available for 24 hours for each day of the year.

Table 209: Total Power Purchase Cost Submitted by CSPDCL (Rs Cr)

Sources	2010-11	2011-12	2012-13
CSPGCL	2337	2398	2334
CGS	1098	1230	1388
Biomass	240	240	240
Short Power Purchase (from CPP and IPP's) to meet the Peak Demand of the State	659	1428	2061
Total	**4334**	**4860**	**5298**

Commission's View

14.107 During the technical validation sessions, on the Commission's direction, CSPDCL has submitted the month-wise peak demand for FY 2007-08, FY 2008-09, FY 2009-10 and the latest available data for FY 2010-11. Based on peak demand and load curves data submitted by CSPDCL, the Commission has observed that the peak demand of CSPDCL reached 2956 MW in October 2010. CSPDCL has also submitted its projections for month-wise peak demand in the state for the entire control period. The Commission feels that CSPDCL's projection of the peak demand at 3216 MW, 3441 MW and 3682 MW for FY 2010-11, FY 2011-12 and FY 2012-13 respectively is excessively high. Given the past trends and the month-wise forecast of peak demand submitted by CSPDCL, the Commission has forecasted a more realistic peak demand of 3100 MW, 3300 MW and 3500 MW for FY 2010-11, FY 2011-12 and FY 2012-13 respectively. The Commission has also considered that CSPDCL shall have to procure at least 100MW of additional RTC power as spinning reserve to ensure uninterrupted power supply in the State. Considering the long term PPAs of CSPDCL and the supply available from CGS stations the total long term availability of power to CSPDCL shall be around 2317 MW, 2639 MW and 2622 MW in FY 2010-11, FY 2011-12 and FY 2012-13 respectively. The availability of long term power shall increase in FY 2011-12 due to additional power expected to be available from CGS during the year.

14.108 CSPDCL has submitted that the energy contracted for meeting peak demand shall be for the 24 hours, each day of the year. The peak demand period in the State is however only for about 5 hours every day. The Commission has considered that the power shall be contracted from short term sources to meet the peak demand for 5 hours each day. Thus the total requirement of power from short term sources is projected to be 1215 MU, 1747 MU and 2083 MU for FY 2010-11, FY 2011-12 and FY 2012-13 respectively, including RTC power to maintain un-interrupted supply of power to the State. The Commission has considered weighted average rate of Rs

3.10/unit for power to be procured from short term sources.

14.109 The summary of the total quantum of power purchase and power purchase cost as approved by Commission is given in the Table 210 below.

Table 210: Total Power Purchase Cost Approved by the Commission

Particular	2010-11			2011-12			2012-13		
	Purchase (MUs)	Rate	Amount (Rs Cr)	Purchase (MUs)	Rate	Amount (Rs Cr)	Purchase (MUs)	Rate	Amount (Rs Cr)
CSPGCL	12783	1.44	1840.8	11986	1.92	2300.7	11964	1.88	2250.0
CGS Stations	4789	1.78	852.5	7325	1.82	1330.0	8062	1.85	1493.0
JSPL	945	2.29	216.5	565	2.29	131.9	-	-	-
Biomass	698	4.00	279.1	737	4.00	294.8	788	4.00	315.1
Solar	47	3.49	16.4	51	3.49	18.0	110	3.49	38.3
Others	141	4.17	58.9	192	4.17	79.8	264	4.17	109.7
Short-term power purchase	1215	3.10	376.8	1747	3.10	541.5	2083	3.10	645.8
Gross Power Purchase	**20619**	**1.77**	**3640.93**	**22603**	**2.08**	**4696.6**	**23270**	**2.09**	**4851.9**

Treatment of Surplus Energy

14.110 CSPDCL has submitted that it will be able to meet its peak load requirement through its short and long term power purchase plan. However, due to seasonal variations in demand, the projected energy availability from various sources will result some surplus energy during off peak hours. CSPDCL has estimated that it will have surplus energy of 959 MU, 518 MU and 1168 MU in FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

The surplus power will be traded in external market either through bilateral sales or UI exchanges. The income from UI sales has been considered in the ARR and it has been assumed that 500 MUs of surplus will be used up towards UI sales. The cost of whatever is left after taking out 500 MUs from the surplus energy has been taken out from the total power purchase cost. CSPDCL has assumed that the income from UI sales of 500 MU shall be on an average Rs. 50 Cr/month i.e. Rs. 600 Cr every year.

The estimated net power purchase expenses submitted by CSPDCL during MYT control period is as given in Table 211 below.

Table 211: Net Power Purchase Cost submitted by CSPDCL (Rs Cr)

Particulars	2010-11	2011-12	2012-13
Total Power Purchase Cost	**4,334**	**4,860**	**5,298**
Units considered for Trading	459	18	668
Per Unit Cost	3.10	3.16	3.23
Less: Cost of Surplus Energy	143	6	216
Power Purchase Cost	**4,191**	**4,854**	**5,082**
Less: UI Income	600	600	600
Net Power Purchase Cost	**3,591**	**4,254**	**4,482**

Commission's View

14.111 The Commission has also observed that there is wide variation in peak demand on seasonal basis. However, CSPDCL will have to make short term arrangements to meet the peak demand and seasonal variations. There will therefore be surplus energy available during some of the months during off peak hours. Considering the total energy requirement and energy availability, the total surplus energy that will be available for sale on power exchange or UI is projected to be 1846 MU, 2019 MU and 1337 MU in FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

14.112 The Commission does not agree with CSPDCL's methodology for calculating the estimated revenue from sale of surplus power. CSPDCL has projected that it will be able to earn Rs 600 Cr from sale of 500 MU of surplus power as UI which works out to be Rs 12/unit. This is much higher than the prevailing UI rate or UI rate observed in the past few years. The Commission for its estimation has considered a more reasonable average UI rate of Rs 3.25/unit considering the UI rates observed during the first 9 months of FY 2010-11. The net power purchase cost approved by the Commission is shown in the Table 212 below.

Table 212: Net Power Purchase Cost Approved by the Commission (Rs Cr)

Particulars	2010-11			2011-12			2012-13		
	Purchase (MU)	Rate Rs/unit	Amount (Rs Cr)	Purchase (MU)	Rate Rs/unit	Amount (Rs Cr)	Purchase (MU)	Rate Rs/unit	Amount (Rs Cr)
Gross Power Purchase	20619	1.77	3640.93	22603	2.08	4696.652	23270	2.09	4851.9
Less: Revenue from Surplus Energy (UI)	1846	3.25	600.08	2019	3.25	656.03	1337	3.25	434.68
Net power Purchase	**18773**	**1.62**	**3040.8**	**20584**	**1.96**	**4040.6**	**21933**	**2.01**	**4417.2**

14.113 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 in the Annual Performance Review for the respective year as these costs have been categorized as uncontrollable items in the CSERC MYT Regulations, 2010.

Merit order for purchase

14.114 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 renewable 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

14.115 The expenditure on inter-state transmission charges incurred during FY 2009-10 was Rs. 77 Cr, the same has been assumed by CSPDCL for the inter-state Transmission Charges throughout the MYT control period. The intra-state transmission charges payable to CSPTCL have been considered as proposed by CSPTCL in its MYT Tariff Petition. It has calculated the total transmission charges by considering the transmission charge/unit as proposed by CSPTCL and multiplied that with the total energy units to be transmitted for CSPDCL. It has therefore considered the transmission charges at Rs 441 Cr, Rs 576 Cr and Rs 717 Cr for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.116 The Commission has considered the inter-state transmission charges at Rs 77 Cr for each year of the MYT period as submitted by CSPDCL. These are likely to increase due to increase in allocation of power to CSPDCL from CGS and shall be trued up as per actual during the true up for the respective year.

14.117 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."

14.118 The Commission has thus considered that the intra-state transmission charges for the use of network of CSPTCL for each year of the control period 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 based on the contracted (allotted) power for such users of CSPTCL network.

Table 213: Transmission Charges (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Inter-state Transmission Charges	77	77	77	77	77	77
Intra-state Transmission Charges	441	246	576	748	717	768

O&M Expenditure

Employee Expenses

14.119 CSPDCL has projected employee expenses by assuming that Employee Expenses (excluding terminal benefits) will grow at 8% p.a. The cost of providing terminal benefits has been kept constant at Rs. 257 Cr during the MYT control period. Based on these assumptions the employee expenses for the MYT control period have been projected at Rs 675.57 Cr, Rs 709.05 Cr and Rs 745.21 Cr.

Commission's View

14.120 The Commission considers CSPDCL's projection of 8% growth in employee expenses (excluding terminal benefits) as unreasonably high. The Commission has observed that the long term increase in salaries over the last five years has only been around 5%. The Commission has considered an escalation of 5.72% per annum over the employee expenses (excluding terminal benefits) approved for FY 2009-10, which is the norm for increasing O&M expenses considered by the CERC and is based on increase in inflation indices.

14.121 With regards to the terminal benefits, the actual contribution to the Pension Fund made in FY 2009-10 by all the successor companies was Rs 290 Cr. The Commission is of the opinion that contribution to the fund should be reasonable and the fund should be able to sustain itself through the revenue earned from judicious investment of the fund. However, the Commission also recognises that no actual evaluation for the fund has been carried out after the recommendations of the Sixth Pay Commission were announced and the requirement of the pension fund might increase when the effect of the Sixth Pay Commission is evaluated.

14.122 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.

14.123 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.

14.124 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.

14.125 The Table 214 below contains the summary of the employee expenses approved for the control period.

Table 214: Employee Expenses (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Employee Expenses excluding Terminal Liabilities	418.48	409.65	451.97	433.08	488.12	457.85
Pension & Gratuity	257.09	121.75	257.09	121.75	257.09	121.75
Total	**675.57**	**531.39**	**709.05**	**554.83**	**745.21**	**579.60**

A&G Expenses

14.126 The actual A&G expenses incurred during FY 2009-10 was Rs 86 Cr; the same has been assumed to grow at a rate of 5% year on year basis during the MYT control period by CSPDCL.

Commission's View

14.127 The A&G expenses of the erstwhile CSEB and its successor companies have been increasing at a high rate. The approved A&G expenses of the CSEB increased by 5% in FY 2006-07 and by 8% in FY 2007-08. Since FY 2008-09, the expenses of the holding company, primarily employee and A&G expenses, have been allocated to the A&G expenses of the three successor companies as per the provision in the transfer scheme. This has led to increase in the A&G expenses for the three companies taken together in both FY 2008-09 and FY 2009-10. However, the increase in A&G expenses has been not only on account of allocation of CSPHCL expenses. The companies have also reported an increase of 22% in FY 2008-09 and 13% in FY 2009-10 in the net A&G expenses. As has already been mentioned in the section dealing with true up, the Commission considers increase in A&G expenses as excessively high and unreasonable and has allowed an increase of 10% in the A&G expenses in FY 2008-09 and FY 2009-10.

14.128 For the MYT control period the Commission expects the utility to manage its expenses more judiciously and has allowed a 5% increase (as submitted by CSPDCL) in A&G costs for each year of the control period over the approved A&G expenses of Rs 79.38 Cr for CSPDCL for FY 2009-10. The summary of submitted and approved A&G expenses is shown in Table 215.

Table 215: A&G Expenses (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
A&G Expenses	89.98	83.35	94.48	87.52	99.20	91.90

Repairs & Maintenance Expenses

14.129 The actual repair & maintenance expense incurred during FY 2009-10 was Rs. 92 Cr; the same has been projected to grow at a rate of 5% year on year basis during the MYT control period by CSPDCL.

Commission's View

14.130 CSPDCL has projected R&M expenses at Rs 96.25 Cr, Rs 101.07 Cr and Rs 106.12 Cr for FY 2010-11, FY 2011-12 and FY 2012-13 respectively which works out to be 4.74%, 3.77% and 2.89% of the approved opening GFA for the three years respectively. The CSPDCL has thus projected a decline in the ratio of R&M expenses to GFA. This is considered as reasonable by the Commission and it has allowed R&M expenses as projected by CSPDCL.

Table 216: R&M Expenses (Rs Cr)

	2010-11		2011-12		2012-13	
Particulars	Submitted	Approved	Submitted	Approved	Submitted	Approved
Total R&M Expenses	96.25	96.25	101.07	101.07	106.12	106.12
R&M as percentage of opening GFA	4.74%	4.74%	3.15%	3.77%	2.48%	2.89%

14.131 The total O&M expenditure submitted by CSPDCL and approved by the Commission is summarised below:

Table 217: O&M Expenses (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Employee Expense	675.73	531.39	709.22	554.83	745.39	579.60
A&G Expense	89.98	83.35	94.48	87.52	99.20	91.90
R&M Expense	96.25	96.25	101.07	101.07	106.12	106.12
Total O & M Expense	**861.96**	**711.00**	**904.76**	**743.41**	**950.71**	**777.61**

Capital Expenditure and Capitalization

14.132 CSPDCL has proposed capital expenditure of Rs 1315 Cr, Rs 941 Cr and Rs 622 Cr for FY 2010-11, FY 2011-12 and FY 2012-13 respectively as per the Business Plan approved for CSPDCL.

14.133 During the technical validation sessions CSPDCL was asked to provide details of additional grant/subsidy, apart from that mentioned in the Business Plan, to be received by it for the various capital schemes. CSPDCL submitted that the capital expenditure on RE Works (Other than RGGVY) during FY 2010-11 is estimated to be only Rs 100 Cr against Rs 187 Cr approved in the Business Plan. Further during FY 2010-11 the scheme be funded only through grants and will not be funded by internal resources of CSPDCL. Also, the capital expenditure on ND schemes during FY 2010-11 is likely to be only Rs 115 Cr against Rs 125 Cr as approved in the Business Plan. Further the scheme will now be funded by Rs 70 Cr in grants and Rs 45 Cr by equity.

14.134 Thus the total capital expenditure for FY 2010-11 has been revised to Rs 1218.37 Cr against an approved capital expenditure of Rs 1315.37 Cr. No change has been made to the capital expenditure plan for the remaining two years of the control period.

14.135 CSPDCL has proposed capitalisation at the rate of 50% for each year of the MYT control period.

Commission's View

14.136 The Commission has considered the revision in the capital expenditure for the two schemes – RE Works (Other than RGGVY) and ND – for FY 2010-11 as proposed by CSPDCL.

14.137 With regards to the change in financing pattern of the two schemes, in case of RE Works, the Commission has considered that the entire expenditure on the scheme in FY 2010-11 will be funded by grant. In case of ND works the Commission has considered that the scheme will be funded by Rs 70 Cr grant, and the remaining amount will be funded by debt and equity in the ratio of 80:20 as approved by the Commission in the Business Plan.

Table 218 contains the revised capital expenditure plan of CSPDCL for the MYT control period.

14.138 The Commission has observed that the CSPDCL has proposed capitalisation rate of 50% for each year of the control period while it achieved capitalisation rate of only 19% in FY 2009-10. Therefore the Commission has considered a more realistic capitalisation rate of 30% for FY 2010-11 and 40% for FY 2011-12 and FY 2012-13. The capitalisation rate shall however be revised based on the actual performance of CSPDCL during FY 2010-11 in the subsequent tariff orders.

14.139 The asset capitalisation schedule approved by the Commission is shown in Table 219.

Table 218: Revised Business Plan for MYT Control Period (Rs Cr)

	2010-11				2011-12				2012-13				Total MYT period			
Name of scheme	**Equity**	**Loan**	**Grant**	**Total**	**Equity**	**Loan**	**Grant**	**Total**	**Equity**	**Loan**	**Grant**	**Total**	**Equity**	**Loan**	**Grant**	**Total**
Government Schemes																
RGGVY	0.00	0.00	427.32	**427.32**	0.00	0.00	238.18	**238.18**	0.00	0.00	0.00	**0.00**	0.00	0.00	665.51	**665.51**
APDRP	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**	0.00	0.00	0.00	**0.00**
R-APDRP Part A	0.00	132.55	0.00	**132.55**	0.00	18.90	0.00	**18.90**	0.00	0.00	0.00	**0.00**	0.00	151.45	0.00	**151.45**
R-APDRP Part B	9.00	36.00	0.00	**45.00**	9.00	36.00	0.00	**45.00**	9.00	36.00	0.00	**45.00**	27.00	108.00	0.00	**135.00**
Electrification of Educational Institute & Health Center	0.00	0.00	125.00	**125.00**	0.00	0.00	100.00	**100.00**	0.00	0.00	100.00	**100.00**	0.00	0.00	325.00	**325.00**
Partly or Fully CSPDCL's Funded Schemes																
RE Works (Other than RGGVY)	0.00	0.00	100.00	**100.00**	31.04	124.17	31.79	**187.00**	30.88	123.50	31.62	**186.00**	61.92	247.67	163.41	**473.00**
Atal Jyoti Yojana	14.00	56.00	0.00	**70.00**	8.00	32.00	0.00	**40.00**	0.00	0.00	0.00	**0.00**	22.00	88.00	0.00	**110.00**
ST(N)	16.00	64.00	0.00	**80.00**	16.00	64.00	0.00	**80.00**	16.00	64.00	0.00	**80.00**	48.00	192.00	0.00	**240.00**
ND	9.00	36.00	70.00	**115.00**	15.00	60.00	50.00	**125.00**	15.00	60.00	50.00	**125.00**	39.00	156.00	170.00	**365.00**
EITC	4.80	19.20	0.00	**24.00**	1.60	6.40	0.00	**8.00**	0.80	3.20	0.00	**4.00**	7.20	28.80	0.00	**36.00**
Loss Reduction Schemes	19.90	79.60	0.00	**99.50**	19.80	79.20	0.00	**99.00**	16.32	65.28	0.00	**81.60**	56.02	224.08	0.00	**280.10**
Total	72.70	423.35	722.32	**1218.37**	100.44	420.67	419.97	**941.08**	88.00	351.98	181.62	**621.60**	261.14	1196.00	1323.92	**2781.06**

Table 219: Asset Capitalisation Schedule (Rs Cr)

Asset Capitalization Schedule	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Opening CWIP	1022.18	932.97	1176.03	1516.21	1077.94	1488.58
Additions during the Year	1329.87	1233.04	979.85	964.75	677.34	640.37
Conversion of CWIP into Asset during the Year	1176.03	649.80	1077.94	992.38	877.64	851.58
Closing CWIP	1176.03	1516.21	1077.94	1488.58	877.64	1277.37
Opening GFA	2029.56	2029.56	3205.58	2679.36	4283.52	3671.74
Conversion of CWIP into Asset during the Year	1176.03	649.80	1077.94	992.38	877.64	851.58
Closing GFA	**3205.58**	**2679.36**	**4283.52**	**3671.74**	**5161.16**	**4523.32**
% Conversion	50%	30%	50%	40%	50%	40%

Interest and Finance Charges

Interest on Loan

14.140 CSPDCL has computed interest on existing loan of CSEB and on the projected new loans approved in the Business Plan. It has also considered capitalisation of interest expenses at 50% of the total computed interest on new loans.

Commission's View

14.141 The Commission observes that the methodology adopted by CSPDCL is not in accordance with the CSERC MYT Regulations, 2010. The new 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%.

14.142 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 2009-10. CSPDCL submitted the interest on existing loans from different sources in format F10 of the petition. It further submitted that the interest on new loans projected to be taken during the MYT period has been considered as 11%.

14.143 On scrutiny by the Commission of the details of interest on loan submitted by CSPDCL, it was pointed out that the rate of interest on existing state govt. loan has been taken as 8.83%, 9.51% and 10.24% for FY 2010-11, FY 2011-12 and FY 2012-13. CSPDCL later clarified that the rate of interest on the existing state govt loans is only 8% and the same has been considered by the Commission. The Commission has also considered a rate of 11% on the new loans of CSPDCL to be drawn during the MYT control period as per the submission of CSPDCL. 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.

The Table 220 below contains the weighted average rate of interest as calculated by the Commission.

Table 220: Weighted Average Rate on Normative Loan Considered by the Commission

Source	2010-11 Rate of Interest (%)	2011-12 Rate of Interest (%)	2012-13 Rate of Interest (%)
Weighted Average of Interest Rate	10.35%	10.66%	10.40%

14.144 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 shall be equal to the depreciation allowed during the year. The interest on normative loan approved by the Commission is shown in Table 221 below.

Table 221: Interest on Normative Loan (Rs Cr) Approved by the Commission

	2010-11	2011-12	2012-13
Gross Normative loan – Opening	1272.28	1654.34	2209.02
Cumulative repayment of Normative Loan up to previous year	894.65	982.97	1097.30
Net Normative loan – Opening	**377.63**	**671.37**	**1111.72**
Increase/Decrease due to ACE during the Year	382.06	554.68	505.21
Repayments of Normative Loan during the year	88.32	114.33	143.89
Net Normative loan – Closing	**671.37**	**1111.72**	**1473.05**
Average Normative Loan	524.50	891.55	1292.38
Weighted average Rate of Interest	10.35%	10.66%	10.40%
Interest on Normative loan	**54.30**	**95.07**	**134.36**

Interest on Security Deposit

14.145 The actual interest due to security deposit incurred during FY 2009-10 was Rs 28.61 Cr; the same has been assumed to grow at a rate of 6% on year-on-year basis during the MYT control period.

Commission's View

14.146 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 222: Interest on Security Deposit (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Projected	Approved	Projected	Approved
Interest on Consumer Security Deposit	30.33	30.33	32.15	32.15	34.08	34.08

Interest on Working Capital

14.147 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.

The receivables equivalent to two months have been calculated on the projected revenue (at existing tariff rates) during the MYT control period.

Commission's View

14.148 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.

14.149 The interest on working capital has been considered at normative interest rate of 11.75% which is the prevailing SBI Short term Prime Lending Rate as on April 1, 2010. The submitted and approved interest on working capital is shown in the Table 223 below.

Table 223: Interest on Working Capital (Rs Cr)

	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
O&M Expenses (one month)	72	49	75	52	79	55
Maintenance Spares @ 15% of O&M expenses	129	88	136	93	143	98
Receivables equivalent to two months revenue	622	621	716	702	766	774
Total Working Capital	823	758	927	847	988	927
Rate of Interest	11.75%	11.75%	11.75%	11.75%	11.75%	11.75%
Interest on Working Capital	**96.72**	**89.07**	**108.93**	**99.52**	**116.09**	**108.92**

Other Finance Charges

14.150 CSPDCL submitted in its petition that it has given discounts to consumers for timely bill payment and has incurred other finance charges during FY 2009-10. These charges have been assumed to grow at a rate of 6% on year-on-year basis during the MYT control period. CSPDCL has submitted total miscellaneous finance charges as Rs 29.30 Cr, Rs 31.05 Cr and Rs 32.92 Cr for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.151 CSPDCL submitted during the technical validation session that no discount was given to retail consumers of CSPDCL during FY 2009-10. It has submitted:
"In the process of segregation the power purchased from IPP & CPPs which was vested in Govt. of Chhattisgarh were required to be derecognized from the account of CSPDCL. Accordingly, necessary adjustments for transferring the Inter State Sale and discount thereof *were to be carried out by the CSPHCL... As such while transferring the Inter State Sale from the account of CSPDCL corresponding*

discount, which should have been netted off from the sale was omitted due to oversight. Accordingly, the figure reflected in the discount account amounting to Rs. 26.15 cr will be transferred, taking due cognizance of the query raised by the Hon'ble Regulatory Commission. However, the omission does not render any impact on the profit and loss of the Company."

14.152 Thus the Commission has not considered any such expense in the ARR during the MYT control period. The Commission has also not considered any other miscellaneous finance charges and has only approved the interest on loan, interest on working capital and interest on consumer security deposits.

14.153 A summary of the interest and finance charges submitted by CSPDCL and approved by the Commission is shown in the Table 224 below.

Table 224: Interest and Finance Charges (Rs Cr)

	2010-11		2011-12		2012-13	
Particulars	**Submitted**	**Approved**	**Submitted**	**Approved**	**Submitted**	**Approved**
Interest on Existing Loans of CSEB	41.70	54.30	31.13	95.07	24.51	134.36
Interest on New Loans	29.01		77.54		111.49	
Interest on Working Capital	96.72	89.07	108.93	99.52	116.09	108.92
Interest on Security Deposit	30.33	30.33	32.15	32.15	34.08	34.08
Discount to Consumers for timely payment and other charges	29.30	0	31.05	0	32.92	0
Total	**227.06**	**173.70**	**280.81**	**226.75**	**319.08**	**277.36**

Interest and Other Expenses Capitalised

14.154 CSPDCL has submitted capitalisation of interest at Rs 14.50 Cr, Rs 38.77 Cr and Rs. 55.74 Cr for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.155 The Commission has also considered the IDC and capitalisation of interest and other expenses during the MYT control period. The Table 225 below contains a summary of the interest and other expenses capitalised.

Table 225: Interest and Other Expenses Capitalised (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	**Approved**	**Submitted**	**Approved**	**Submitted**	**Approved**
Less: Expenses Capitalized	15	36	39	46	56	42

Depreciation

14.156 CSPDCL has calculated the depreciation on existing assets as per the rates specified in CSERC MYT Regulations, 2010.

14.157 CSPDCL has submitted that it has taken depreciation on the assets capitalized during the year on pro-rata basis for the days of operation in accordance with the Commission's Tariff Regulations. Further, CSPDCL has considered a rate of 5.28% for calculation of depreciation for new assets added during the period as per CSERC MYT Regulations, 2010.

Commission's View

14.158 During the technical validation session, the Commission asked CSPDCL to submit asset wise calculation of depreciation on existing assets, calculated as per the rates specified in the CSERC MYT Regulations, 2010. The Commission has verified these calculations and has considered depreciation on existing assets as submitted by CSPDCL. However, the Commission noticed that CSPDCL did not reduce the depreciation on account of assets created out of consumer contribution. The consumer contributions or grant towards GFA, as per the provisional accounts submitted by CSPDCL, have been taken out while calculating the depreciation on existing assets.

14.159 With regard to depreciation on additions to GFA, the Commission noticed that CSPDCL has considered the total capital expenditure approved for the year in the Business Plan as the total additional capitalisation. This is incorrect. The Commission has only considered assets capitalised during the year as per the approved capitalisation schedule for calculation of depreciation. Further it has not allowed depreciation on the portion of assets capitalised that have been financed by grants/consumer contribution.

14.160 The Commission has considered a rate of 5.27% for calculation of depreciation for new assets added during the period based on the weighted average rate of depreciation on the opening assets for FY 2010-11. The Table 226 below gives the details of calculation of depreciation for the year.

Table 226: Depreciation (Rs Cr)

Assets added till FY 2009-10						
Particulars	**2010-11**		**2011-12**		**2012-13**	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Closing GFA FY 2009-10		2029.56		2029.56		2029.56
Opening Consumer Contribution towards GFA		212.0		212.0		212.0
Depreciation on existing CSEB Assets apportioned to CSPDCL as on 1st January, 2008	72.00	71.97	72.00	71.66	71.00	71.29
Depreciation on new assets added during FY 2008-09 and FY 2009-10	14.78	14.8	14.78	14.8	14.78	14.8
Total Depreciation	**86.8**	**86.7**	**86.8**	**86.4**	**85.8**	**86.1**
Average Depreciation Rate on assets till 31.3.2010		4.27%		4.26%		4.24%
Less: Depreciation on account of Consumer Contribution		9		9		9
Net Depreciation		**77.7**		**77.4**		**77.1**
Assets Capitalised during the Control Period						
	2010-11		**2011-12**		**2012-13**	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Opening Capital Base for Depreciation Calculation	0	0.00	695.76	403.87	1255.64	998.73
Additional Capitalisation	1329.87	649.80	979.85	992.38	677.34	851.58
Consumer Contribution capitalised during the year	634.11	245.93	419.97	397.53	181.62	311.16
Closing Capital Base for Depreciation Calculation	695.76	403.87	1255.64	998.73	1751.36	1539.14
Average Capital Base for Depreciation Calculation	347.88	201.93	975.70	701.30	1,503.50	1,268.93

Weighted Average Depreciation Rate on assets till 31.3.2010	5.28%	5.27%	5.28%	5.27%	5.28%	5.27%
Net Depreciation	18.37	10.63	51.52	36.92	79.38	66.81
Total Depreciation on all assets added till the end of the year	**105.15**	**88.32**	**138.30**	**114.33**	**165.16**	**143.89**

Provision for Bad Debts

14.161 CSPDCL included a provision of 1% of the revenue from sale of power for bad debts and other debits. The provision is calculated on the projected revenue (at the existing tariff) during the MYT control period.

Commission's View

14.162 The CSERC MYT Regulations, 2010 allow provision of bad and doubtful debts of the distribution licensee up to 1% of the receivables subject to actual writing off of bad and doubtful debts. Accordingly, the Commission has allowed bad debts at 1% of the revenue from sale of power as approved by the Commission as shown in Table 227 below.

Table 227: Provision for Bad Debts (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Provision For Bad Debts/ Other Debits	37	37	43	42	46	46

Return on Equity

14.163 CSPDCL has submitted that it has computed the return on equity considering the following approach:

- 30% of the opening GFA for FY 2009-10 is considered as the opening equity base for RoE calculation. The Asset created out of Consumer Contributions or Grant or Subsidies are taken out while calculating the RoE.
- CSPDCL would be infusing fresh equity for the planned capital expenditure during the MYT control period. 50% of the fresh equity is capitalized every year in alignment with the asset capitalization schedule. Also only 20% of the equity is considered for RoE calculation as the Debt: Equity ratio considered for new projects is 80:20.
- The return on equity is calculated at the rate of 16% as per CSERC MYT Regulations, 2010. The current MAT rate of 16.99% is assumed for the purpose of calculating tax liabilities. Therefore the pre-tax equity rate is considered as 19.27%.

Commission's View

14.164 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 RoE.

14.165 CSPDCL has submitted that it has considered addition to equity at 20% of the capital cost and capitalisation at 50% for the year. However in its calculations CSPDCL has considered 30% of total capital cost as equity additions during the year. Further it has considered the entire amount of equity added and not merely the equity capitalised as addition to equity base for calculation of RoE. This is incorrect.

14.166 The Commission has calculated the additions to equity by considering the actual equity infusion allowed for the year and the approved capitalisation for the year.

14.167 CSPDCL has submitted that it should be allowed 16% rate of return as per CSERC MYT Regulations, 2010. The said Regulations clearly state that return on equity shall be computed on pre-tax basis at the base rate of maximum 15.5% to be grossed up by the applicable tax rate. In case of projects started or commissioned after 1.4.2010 an additional return of 0.5% shall be allowed if such projects are completed on time. Thus the Commission has considered only a rate of 15.5% for calculation return on equity grossed up by the current MAT rate of 19.93% to give rate of return of 19.36%. The return on equity shall be grossed up by the actual applicable tax rate for the year during the truing up for the respective year.

14.168 The Table 228 below shows the RoE approved by the Commission.

Table 228: Return on Equity (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Opening GFA	2029.56	2029.56		2679.36		3671.74
Less: Consumer Contribution/grants towards GFA at beginning of the year	205.81	212.01		457.94		855.47
Net Opening GFA	1823.75	1817.55		2221.42		2816.27
Opening Equity Qualified for RoE calculation (Normative Equity: 30% of the Net Opening GFA)	547.12	545.26	755.85	567.07	923.82	607.25
Closing GFA		2679.36	979.85	3671.74	677.34	4523.32
Less: Consumer Contribution/grants towards GFA at end of the year		457.94		855.47		1166.64
Net Closing GFA		2221.42		2816.27		3356.69
Closing Equity qualified for RoE calculation (Opening Equity + New Equity)	755.85	567.07	923.82	607.25	1072.53	642.45
Average Equity during the period (Average of Opening and Closing Equity)	651.49	556.17	839.83	587.16	998.17	624.85
Rate of Return of Equity	16.00%	15.50%	16.00%	15.50%	16.00%	15.50%
Pre Tax Rate of Return of Equity	19.27%	19.36%	19.27%	19.36%	19.27%	19.36%
Reasonable Return	**125.57**	**107.66**	**161.88**	**113.66**	**192.40**	**120.96**

14.169 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*".

Accordingly, the Commission 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.

Income Tax

14.170 CSPDCL has projected income tax of Rs 21 Cr, Rs 28 Cr and Rs 33 for FY 2010-11, FY 2011-12 and FY 2012-13 respectively.

Commission's View

14.171 As per CSERC MYT Regulations, 2010 pre-tax return on equity has been considered while computing RoE. Therefore, the tax has not been separately considered for computation of ARR.

Non Tariff Income

14.172 Non Tariff Income is the income from all other sources other than sale of power. CSPDCL has projected Non Tariff Income at Rs 235 Cr, Rs 247 Cr and Rs 259 Cr for FY 2010-11, FY 2011-12 and FY 2012-13 respectively considering an increase of 5% each year from Rs 224 Cr of Non Tariff Income in FY 2009-10.

Commission's View

14.173 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. The Non Tariff Income of CSPDCL as per the provisional accounts submitted for FY 2009-10 was Rs 235 Cr. The same has been considered as the base for projection of Non Tariff Income for the MYT control period. The Commission has also considered an increase of 5% in Non Tariff Income for each year of the control period. The same shall however be trued up during the Annual Performance Review for the respective year.

Table 229: Non Tariff Income (Rs Cr)

	2010-11		2011-12		2012-13	
Non-Tariff Income	Submitted	Approved	Submitted	Approved	Submitted	Approved
Total	235	247	247	259	259	272

Income from Short Term Open Access (STOA) Customers

14.174 CSPDCL has not projected revenue from STOA customers in its tariff petition.

Commission's Views

14.175 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 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.

14.176 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.

14.177 For FY 2010-11, the Commission has projected that CSPDCL shall receive Rs 49 Cr as income from STOA customers considering the projections made by CSPTCL in its tariff petition. For FY 2011-12 the Commission has projected that the income from STOA customers shall be Rs 100 Cr. The increase in income from STOA customers has been projected due to the increase in tariff applicable for STOA customers that have been approved by the Commission. This revenue shall however be trued up in the next tariff order as per the actual amount received during the year.

SLDC Charges

14.178 CSPDCL has not projected levy of SLDC charges on it during the MYT.

Commission's Views

14.179 CSPDCL is required to pay the SLDC charges to SLDC in accordance with the CSERC (Fees and charges of SLDC and other related matters) Regulations, 2010. The estimated payment to be made in this regard is mentioned in Table 231 below.

Table 230: SLDC (SOC+MOC) Charges Approved by the Commission (Rs Cr)

Particulars	2010-11	2011-12	2012-13
Approved ARR for SLDC during MYT	10.42	11.78	13.48
Total SLDC Charges estimated to be recovered from CSPDCL	4.86	5.50	6.29

Annual Revenue Requirement

14.180 The ARR for the control period approved by the Commission can be found in the Table 231 below.

Table 231: ARR for the MYT Control Period (Rs Cr)

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Net Power Purchase Cost	3,591	3,041	4,254	4,041	4,482	4,417
Interstate Transmission Charges	77	77	77	77	77	77
Intra-State Transmission Charges	441	246	576	748	717	768
SLDC (SOC + MOC)	-	4.86	-	5.50	-	6.29
Employee Expenses	676	531	709	555	745	580
A & G Expenses	90	83	94	88	99	92
R & M Expenses	96	96	101	101	106	106
Interest & Financial Charges	227	174	281	227	319	277
Less: Expenses Capitalized	15	36	39	46	56	42
Depreciation	105	88	138	114	165	144
Income Tax	21	-	28	-	33	-
Provision For Bad Debts/ Other Debits	37	37	43	42	46	46
Total Expenses	**5,347**	**4,343**	**6,262**	**5,952**	**6,733**	**6,471**
Reasonable Return (ROE)	126	108	162	114	192	121

Particulars	2010-11		2011-12		2012-13	
	Submitted	Approved	Submitted	Approved	Submitted	Approved
Less: Non Tariff Income	235	247	247	259	259	272
Less: Income from STOA		49		100		175
ARR	**5,238**	**4,155**	**6,176**	**5,707**	**6,667**	**6,146**
Average Cost of Supply	**4.10**	**3.32**	**4.19**	**4.02**	**4.21**	**3.95**

14.181 The ARR projected above shall however be subject to truing up during the Annual Performance Review in the next order of the Commission.

Revenue at Existing Tariff

14.182 CSPDCL has estimated the revenue at existing tariff for FY 2010-11 using the forecasted sales and load for the year at Rs 3732 Cr. CSPDCL has not submitted any projections regarding the category-wise revenue for FY 2011-12 and FY 2012-13.

Commission's View

14.183 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 as observed for the category in the previous year as against CSPDCL which has considered billing demand and contract demand to be equal. However, the actual revenue earned by the CSPDCL will get accounted for under the truing up exercise.

14.184 CSPDCL while estimating the revenue for FY 2010-11 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. Further, CSPDCL has not considered any revenue from the LT temporary supply category even though it has projected 111 MU of sale to it and has also projected revenue for the HV temporary supply category. The Commission has estimated the revenue to this category based on the average tariff that has been observed for the category in the previous year. The consumer category-wise revenue for FY 2010-11 and FY 2011-12 estimated by the Commission is given in the following table:

Table 232: Revenue at Existing Tariff Approved by the Commission (Rs Cr)

Consumer Categories		2010-11	2011-12
LV-1	Domestic	502	541
LV-2	Non Domestic	192	217
LV-3.1	Agriculture Metered	205	232
LV-4	Agriculture Allied Services	3	3
LV-5	LV Industrial	172	181
LV-6	Public Utilities (PWW & SL)	29	31
LV-7	Temporary	41	43
	Sub Total – LV	**1144**	**1248**
EHV-1	Railway Traction	318	334
EHV-2	Heavy Industries	290	309

Consumer Categories		2010-11	2011-12
EHV-3	Steel Industries	97	149
EHV-4	Coal Mine, Cement & Other EHV Industries	206	294
	Sub Total - EHV	**910**	**1087**
HV-1	Steel Industries	1041	1182
HV-2	Coal Mines & Cement Ind.	125	135
HV-3.1	Other HT Industries	173	183
HV-3.2	Other HT Industries	12	13
HV-4.1	Low Load Factor Industries	37	39
HV-4.2	Low Load Factor Industries	0.43	0.45
HV-5.1	Residential Purpose	70	74
HV-5.2	Residential Purpose	2	2
HV-6.1	General Purpose Non Industrial	121	158
HV-6.2	General Purpose Non Industrial	37	41
HV-7.1	Public Water works &	8	8
HV-7.2	Public Water works &	4	4
HV-8	Start Power	29	29
HV 9.1	Agricultural Allied Services	2	2
HV 9.2	Agricultural Allied Services	0	0
	Temporary Supply	5	5
	Temporary Supply	3	3
	Sub Total – HV	**1669**	**1877**
	Grand Total	**3723**	**4212**

14.185 The Commission has thus approved revenue of Rs 3723 Cr and Rs 4212 Cr for FY 2010-11 and FY 2011-12 which works out to an average billing rate of Rs 2.97/unit for each year. The revenue approved by the Commission in FY 2010-11 is lower than the revenue projected by CSPDCL primarily because the Commission has considered the billing demand for HT categories in line with that observed in the previous year whereas the CSPDCL has considered the 100% contract demand as billing demand. This has been partially offset as the Commission has also considered the revenue impact of TOD Tariffs, Load Factor Incentive, Power Factor Penalty and Power Factor Incentive. The Commission has also computed and projected revenue for LT Temporary category for which no revenue had been considered by CSPDCL.

Wheeling Charges for Distribution Open Access Consumers

14.186 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.

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, and the power purchase costs, as given in the Table 233 below:

Table 233: Estimated Wheeling Charge during FY 2011-12

Particulars	Unit	Approved
O&M Expenses		
Employee Expenses	Rs Cr	555
A & G Expenses	Rs Cr	88
R & M Expenses	Rs Cr	101
Interest & Financial Charges	Rs Cr	227
Less: Expenses Capitalized	Rs Cr	46
Depreciation	Rs Cr	114
Income Tax	Rs Cr	-
Provision For Bad Debts/ Other Debits	Rs Cr	42
Reasonable Return (ROE)	Rs Cr	114
Non Tariff Income	Rs Cr	259
Expenditure	Rs Cr	**935**
Total Energy input to 33 kV distribution system	**MU**	**17117**
Total distribution cost at 33 kV	Rs. Cr	935
Less Interest on Consumer Security Deposits	Rs. Cr	32
Distribution cost for wires business (excl.interest on consumer security deposit)	Rs. Cr	903
Distribution cost for 33 kV voltage level [assuming 35% of cost at 33kV less interest on consumer security deposits]	Rs. Cr	316
Wheeling Charges for 33 kV voltage level	**Paise/kWh**	**18**
Wheeling Charges for 33 kV voltage level	**Rs/MWh**	**180**

14.187 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%.

Treatment of Surplus of Previous Year and Revenue Gap

14.188 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.

14.189 The approved revenue gap/surplus for previous years' upto FY 2008-09 has then been allocated to CSPGCL, CSPTCL and CSPDCL in the ratio of 35:5:60. The Commission has also conducted provisional true for the successor companies for FY 2009-10 as has been discussed in the section dealing with truing up for past years.

14.190 The total net surplus available to CSPDCL on considering truing up for previous years is Rs 988 Cr, which has been adjusted in the ARR for FY 2010-11.

Table 234: Treatment of Previous Year's Surplus and Revenue Gap (Rs Cr)

Particulars	2010-11	2011-12
Approved ARR	4155	5707
Surplus/(Deficit) of Distribution carried forward from Previous Years	988	556
Adjusted ARR	**3167**	**5151**
Revenue from Existing Tariff	3723	4212
Surplus/(Deficit) for the year	**556**	**(939)**

14.191 Considering the adjustment of previous year's surplus and revenue from existing tariff for the year FY 2010-11 the Commission has calculated a surplus of Rs 556 Cr at the end of the year. This is against a deficit of Rs 1854 Cr as projected by CSPDCL for FY 2010-11. The surplus for FY 2010-11 as approved by the Commission is primarily a result of the adjustment of previous year's surplus in the ARR for FY 2010-11. Further, the Commission has also not changed the charges of CSPGCL and CSPTCL in FY 2010-11 as had been considered by CSPDCL. The increase in tariff for both generation and transmission company has been given effect only in FY 2011-12.

14.192 The balance surplus of Rs 556 Cr from FY 2010-11 has been carried forward to FY 2011-12 and has been adjusted in the ARR for the year. Accordingly, the Commission has calculated a revenue gap of Rs 939 Cr for FY 2011-12 as has been shown in the table above.

Treatment of Revenue Gap for FY 2011-12

14.193 It has been estimated that with the prevailing tariff CSPDCL would get Rs.4212 Cr as revenue during 2011-12 leaving deficit of Rs.1495 Cr which after adjustment of surplus of Rs.556 Cr from previous years would still leave a deficit of Rs.939 Cr for FY 2011-12. To meet this deficit during the year an average increase in tariff of 22% will be required which will result in tariff shock to the consumers in the state.

14.194 Accordingly, to avoid tariff shock to the consumer, the Commission has decided to limit the tariff hike to an average increase of 14% in the retail tariff of FY 2011-12. This would result in additional revenue of Rs 596 Cr to CSPDCL in FY 2011-12. The remaining deficit of Rs 343 Cr has been carried forward to FY 2012-13. .

Table 235: Treatment of Revenue Gap for FY 2011-12 (Rs Cr)

Sr. No.	Particulars	2011-12
1	Actual ARR (Rs Cr)	5707
2	Average CoS (Rs/unit)	4.02
3	Previous Year's Surplus (Rs Cr)	556
4	ARR after adjusting Previous Year's Surplus (Rs Cr)	5151
5	Revenue at Existing Tariff (Rs Cr)	4212
6	Additional Revenue Generated at Proposed Tariff (Rs Cr)	596
7	Average Increase	14%
8	Untreated Gap (Rs Cr)	343
9	ACOS considering that only part of revenue gap is being recovered for FY 11-12 (Rs/unit)	3.78

14.195 As can be seen from the table above, the Commission has decided to defer the recovery of Rs 343 Cr of cost to FY 2012-13. The adjusted average cost of supply, not considering the portion of untreated gap, has been accordingly been computed at Rs 3.78/unit.

15 MISCELLANEOUS CHARGES

15.1 The Miscellaneous Charges being revovered by the CSPDCL under various heads have been retained at the existing level till the issuance of order by the Commission for new miscellaneous charges.

16 TARIFF PRINCIPLES AND DESIGN

Tariff Principles

16.1 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 2011-12, the Commission has been guided by the provisions of the Electricity 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' within the period to be specified by the Commission. 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. The Commission has been guided by this Policy also.

16.2 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.

16.3 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 FY2005-06 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. Although the Commission has not laid down the road map for reduction of cross-subsidy, 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

16.4 CSPDCL has estimated the ARR for FY 2010-11, FY 2011-12 and FY 2012-13 at Rs. 5238 Cr, Rs. 6176 Cr and Rs. 6667 Cr respectively. The Licensee has also estimated a revenue gap of Rs 1854 Cr in FY 2010-11 (including recovery of gap of Rs. 348 Cr for previous years) at existing tariffs and has accordingly proposed category-wise retail tariffs designed to earn additional revenue of Rs. 1854 Cr, to cover the cumulative projected revenue gap till FY2010-11.

16.5 However, as the tariff petition was filed by CSPDCL only in October of FY 2010-11 and public notice was issued in December 2010, sufficient time was not left to implement a new tariff structure for FY 2010-11. The Commission has thus approved a new tariff structure based on the approved ARR and cumulative revenue gap of CSPDCL uptill FY 2011-12 and the new tariff will be applicable for FY 2011-12.

16.6 The ARR and revenue gap uptill FY 2011-12 has been determined by the Commission after detailed scrutiny of the revenue requirement proposed by the CSPDCL. As against the CSPDCL's proposed ARR for FY 2010-11, FY 2011-12 and FY 2012-13 at Rs. 5238 Cr, Rs. 6176 Cr and Rs. 6667 Cr respectively, the Commission has arrived at prudently and approved ARR of Rs 4155 Cr, Rs 5707 Cr and Rs 6146 Cr for FY 2010-11 , FY 2011-12 and FY 2012-13 respectively as per the MYT guidlines.

16.7 As discussed in earlier sections of this order, the Commission has carried out the 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. The gap/surplus generated by the truing up exercises has also been considered in arriving at the cummulative gap of Rs 939 Cr for CSPDCL for FY 2011-12 as explained in the earlier sections. The ARR and cummulative revenue gap approved by the Commission for FY 2011-12 will be met to a limited extent through the revenues at revised tariffs.

16.8 The revision in tariff has been neccesiated by the increase in the average cost of supply which has increased from Rs 3.04/unit (as approved in the previous tariff order) for FY 2009-10 to Rs 4.02/unit (unadjusted) and Rs 3.78/unit (adjusted) in FY 2011-12. 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

16.9 The Commission, in its Previous tariff order for FY 2009-10 issued in May 2009 had ruled that LV1 BPL tariff would be applicable only to such consumers whose connected load is not more than 120 Watts and total consumption is not more than 360 units per year and who hold BPL cards. The Commission had also ordered that all such consumers whose total consumption in a year exceeds 360 units must be migrated to domestic LV-1.2 category, to prevent the misuse of this highly subsidized category.

16.10 Considering that the BPL consumers may be deprived of subsidy of 30 units per month as approved by the state government in case they are migrated to domestic category, the Commission has withdrawn the provision for migration in this tariff order. From FY 2011-12 onwards the Commission has decided to discontinue separate category for BPL consumers. All domestic consumers including BPL card holders shall be provided a domestic connection. The Commission requested the state government to inform the Commission about any change in existing revenue subsidy being provided to BPL consumers. The state govenment has informed the Commission that there is no change in existing level of revenue subsidy i.e. of 30 units per connection per month. Accordingly, all BPL card holders shall 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. Since CSPDCL has completed 100% metering of all BPL connections, it must ensure that all the consumers are billed according to their actual consumption.

16.11 In domestic (LV 1) category, there are presently four slabs namely, 0-200 units, 0-500 units, 0-700 units and 0-above 700 units. The Commission has introduced a new slab under this category to rationalise the tariff applicable to small domestic consumers, so that consumers having lower range of consumption, up to100 units/month, do not have to pay same the tariff as paid by consumers with higher consumption i.e. upto 200 units. The slabs for domestic consumers have been changed, as depicted below

0 - 100 units

0 - 200 units

0 - 500 units

0 - 700 units

0 - Above 700 units

16.12 These slabs are non-telescopic, which means that billing shall be done for all the energy consumption in a particular slab.

16.13 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 50% of the ACOS and for the domestic category in total has been restricted to 59% of ACOS.

LV-2 : Non-Domestic

16.14 There are currently three slabs under this category and the slabs have been retained as per the previous tariff order.

16.15 The **fixed charges** for consumers in all the slabs have been changed from a connected load basis to consumption basis as is the case in the domestic category. The option for **demand based tariff** for non-domestic category will, however, continue as per the previous tariff order.

LV-3 : Agriculture

16.16 Agriculture tariff has traditionally been highly subsidized and consumers have been billed on a flat rate basis. CSPDCL has submitted that it has completed 100% metering of agriculture consumers. Thus in this order the optional flat rate tariff for existing connections upto 3 HP load has been discontinued. All consumers in the agriculture category will now be billed on the basis of their actual consumption.
The Commission requested the state government to inform the Commission about any change in existing revenue subsidy being provided to agriculture consumers. The state govenment has informed the Commission that there is no change in existing level of revenue subsidy i.e. 6000 units per connection per annum for upto 5 HP pumps. Accordingly, all agriculture consumers shall be entitled for subsidy as per Govt. of Chhattisgarh Order. The agricultural consumers should, however, also be given the due benefit of the subsidy made available to them by the Govt. of Chhattisgarh.

LV-4 : Agriculture Allied Activities

16.17 The Commission has decided to introduce demand based tariff in this category to remove practicle difficulties faced by the consumers and CSPDCL.

LV-5 : L.T. Industries

16.18 The tariff for all the sub-categories has been increased to reflect the appropriate increase in cost of supply.

16.19 Presently only consumers with connected load upto 150 HP can avail demand based tariff. CSPDCL has submitted that there is no significance of the connected load of a consumer covered under demand based tariff and therefore it has proposed to remove restriction of connected load for the demand based tariff categories of LT consumers. The Commission agrees with the CSPDCL's view and has decided to remove the restriction on connected load for applicability of demand based tariff.

LV-6 : Public Utilities

16.20 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 61% of the ACOS.

L.T. Temporary Supply

16.21 The tariff 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.

Billing for Excess Load/ Excess Supply

16.22 At present, if a LT consumer increases its connected load/avails excess supply beyond contract demand, then it is charged at 1.5 times of the normal applicable to the consumer category. CSPDCL has proposed to make changes in the design in tariff for such consumers in order to discourage the consumers to increase the connected load/avail excess supply. CSPDCL has proposed to charge 1.5 times of the normal applicable till the connected load/availed supply is within 120 % of the connected load/supply and 2 times of the normal applicable in case the connected load/availed supply is beyond 120 % of the connected load/supply.

16.23 The Commission believes that since the system is designed by the utility based contracted load/supply by the consumer, any excess load/drawal of power over and above the contract affects the system. The Commission has thus accepted the proposal submitted by CSPDCL, and hence forth the consumers having connected load/availing excess supply be more than contracted will be charges accordingly.

Power Factor Incentive and Surcharge

Power Factor Surcharge

16.24 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 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 & non-domestic 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.

Power Factor Surcharge

16.25 All LT industrial, agriculture allied and public water works consumers whose contracted load/connected load is 3 HP and above shall arrange to install low tension suitable 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.

16.26 All LT domestic, non-domestic consumers with contracted load/connected load of 15 KW or above, have to install low tension suitable 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.

16.27 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

16.28 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.

16.29 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.

16.30 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.

16.31 In this tariff order 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.

HT Tariff

EHV Categories

16.32 The Commission has made the EHV tariff applicable for consumers who avail supply at 400 kV, in addition to 220 and 132 kV under EHV categories.

EHV 1-Railway Traction

16.33 The tariff for this category has been increased to reflect the increase in cost of supply.

EHV 2-Heavy Industries

16.34 Currently, the connections having contract demand of more than 20 MVA are in this category. CSPDCL has submitted that contract demand has not been prescribed as basis for differentiating consumers for the purpose of categorization under Section 62 (3) of the Act. Therefore, it has proposed to remove the restriction of 20 MVA contract demand from HT Steel Industries and Other EHV Industries. CSPDCL has further proposed that the Heavy Industries Tariff category may be merged with Other EHV Industries Tariff as this category has only two consumers namely BSP and BALCO at present.

16.35 The Commission does not agree with the arguments made by CSPDCL. It is pertinent to note that the petitioner has proposed the tariff for LT industries on the basis of contract demand/connected load of the consumer, whereas for HT category of consumers, the petitioner has a different proposal. The plea of the petitioner that the contract demand has not been presribed as a basis under Section 62 (3) of the Act to consider categorization on this account appears to self-contradictory. Secondly, Hon'ble Appelatte Tribunal of Electricity in its judgement has observed that the contract demand can form the basis of tariff categorization. Further, merging this category with other consumer categories shall result in a drastic change in tariff for the consumers in this catregory. Therefore, the Commission has not accepted the proposal or CSPDCL. This tariff shall be applicable to all types of industries availing EHT connections excluding railway traction and having contract demand of more than 20 MVA.

EHV 3-Steel Industries

16.36 The tariff for EHV steel industries was low in the past and was even lower than the average cost of supply approved in the previous tariff order. Being a heavy industry, the tariff for the category should be at least be equal to the average cost of supply. The tariff for this category has also been increased to reflect the increase in cost of supply.

EHV 4-Other EHV consumers

16.37 The tariff for this category has been increased to reflect the increase in cost of supply.

HV Categories

HV-1 : Steel industries

16.38 Presently, there is a provision for load factor incentive only for steel industries operating above 70% load factor to provide incentive to this core industry. The distribution company has proposed to discontinue this provision of load factor incentive. Agreeing to the proposal of CSPDCL, the Commission has now decided to withdraw the load factor incentive given to this category as the same is not presently available to any other category of consumers.

16.39 The tariff for this category has been increased to reflect the increase in cost of supply. However, the average tariff for the category continues to be around the average cost of supply.

HV-2 : Mines and Cement industries

16.40 The tariff for this category has been increased to reflect the increase in cost of supply.

HV-3 : Other industries

16.41 The tariff for this category has been increased to reflect the increase in cost of supply.

HV-4 : Low load factor industries

16.42 The tariff for this category has been increased to reflect the increase in cost of supply.

HV- 5 : Residential Purpose

16.43 The Commission is of the view that more consumers should be encouraged to avail connections under this category as it is beneficial for both the conusmers and the utility. Therefore the the tariff for this category has been increased nominally to ensure to provide an incentive to consumers to join this category.

16.44 Considering the difficulties faced by the colonisers having some non-domestic nature of load in their colonies to meet the basic amenities for the residents of the colony, the Commission is of the view that certain percentage of the non domestic nature of load should be permitted under this tariff category. This is keeping in mind that most of these colonies have a single point of supply from which power is drawn for both domestic and some non-domestic use. Since the percentage of power drawn for non domestic load is relatively small, there is no need for providing a separate connection for such load. A fixed percentage (as decided by the Commission) of the overall load shall be treated as non domestic load. Taking an overall view, the Commission has decided to permit a maximum 10% of connected load of non domestic nature, excluding the load required for drinking water supply, sewage pumping and street-lights inside the residential colony, in this tariff category.

HV- 6 : General purpose non-industrial

16.45 The tariff for this category has been increased to reflect the increase in cost of supply.

HV- 7 : Public water works & Irrigation

16.46 The tariff for this category has been increased to reflect the increase in cost of supply.

HV-8 : Start-up Power

16.47 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.

16.48 CSPDCL has proposed in its petition that the start up power connections for Biomass based generators for whom exemption from payment of demand charges has been prescribed by the Commission be classified under a separate category.

16.49 The Commission does not find merit in creating a separate category for start up power for Biomass based generators. The Commision has granted exemption to these consumers from payment of demand charges (Order dated 15.1.08 for petition no. 7 of 2005) for promotion of renewable energy in the state and wishes to continue the same.

16.50 It was brought to the attention of the Commission that some generators who do not have any agreement with CSPDCL for the 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 which also includes demand charge.

HV-9 -H.T. Agriculture Allied Activities

16.51 The tariff for this category has been increased to reflect the increase in cost of supply.

Billing for excess supply at HV and EHV

16.52 At present if an EHV or HV consumer avails excess supply then it is charged at one and a half times of the normal tariff applicable to consumer. CSPDCL has proposed to increase it further to discourage the consumers form availing excess supply often and to unlimited extent. CSPDCL has proposed to charge 1.5 times the normal tariff till the availed supply is within 120% of the contract demand and 2 times of the normal tariff for total excess supply and related consumption if the availed supply is above 120% of the contract demand.

Since the system is designed by the utility based on the demand contracted by the consumer, any excess drawal of power over and above the contract demand affects the system, therefore, it is necessary to discourage the consumer from excess drawal of power over and above the contract demand. It is pertinent to mention that the CSPDCL procures power from the central generating station through ABT mechanism through the regional grid. Any over-drawal by end consumers of CSPDCL may result in over-drawal through the regional grid. Since the over-drawal from the regional grid is linked with the frequency based tariff, i.e. UI charge, it may affect the cost of power-procurment of the CSPDCL. The Commssion has accepted the proposal submitted by CSPDCL and henceforth, the HV and EHV consumers availing excess supply will be charged accordingly.

Temporary Supply

16.53 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.

TOD Tariff

16.54 The Tariff Policy (para 8.4) as stipulated 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.

16.55 Presently ToD regime has three time periods viz., normal period, evening peak load period and off-peak load period. CSPDCL has proposed to change this to two time periods, namely, normal period and peak period. CSPDCL has also proposed to introduce T.O.D Tariff for LT Industries above 50 HP load/Contracted Demand to two time blocks namely Normal and Peak Period.

16.56 CSPDCL has also submitted that the peak load hours prevailing within the state are from 6:00 PM to 11 P.M while in the interstate region the prescribed peak load hours are from 5 P.M to 11 P.M. Therefore, all the charges payable by the CSPDCL in the interstate transactions on account of peak load hours are required to be paid from 5 P.M while the charges recoverable by CSPDCL in the intrastate transactions are effective from 6 PM only. CSPDCL has submitted that it is incurring a financial loss on this accord. CSPDCL has proposed prescribing the peak load hours for the state in consonance with peak load hours prescribed for interstate region. The Commission is of the 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 shall study the pros and cons of changing the existing system and take a decision accordingly.

16.57 The Commission has observed that, in order to avail the benefit of TOD incentives a number of consumers have shifted their load to night hours, due to which flattening of load curve has occurred over a period of time. But, in case TOD rebate is abolished as proposed by CSPDCL, the consumers who have shifted their load to night hours, may shift back to their original usage pattern of day-hours, which is not desirable. Hence, considering the views of various stakeholders, the Commission, has retained prevailing timings of TOD regime and has also retained the incentive during off peak period and surcharge during evening peak period at the existing level.

16.58 With regards to introduction of TOD tariff for LT industries, 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 shall allow TOD regime for LT categories after careful scrutiny of the utility's proposal.

Power Factor Incentive and Penalty

16.59 No change in the present principle and methodology of power factor incentive and penalty for EHT & HT consumers has been made in this order.

Billing on kVAh basis

16.60 CSPDCL has proposed kVAh based billing for HT consumers. It has submitted that kVAh based billing is already prevalent in the state for Railways since last five years and operating effectively.

16.61 The Commission has allowed kVAh billing for Railway Traction category as Railways has a highly fluctuating load. 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 receipt of the report of the FOR study.

Provision of HT Connections to LT Residential Consumers

16.62 CSPDCL has proposed to provide HT connection to a group of LT consumers in residential colonies or commercial complexes if their combined consumption is similar to HT consumption level. CSPDCL has proposed this to help to improve the HT:LT ratio of the distribution system. This will encourage the LT consumers to opt for HT connections which will further strengthen the distribution network and reduce the pilferages.

16.63 While the Commission agrees, in principle, with the proposal submitted by CSPDCL, it directs CSPDCL to file a separate petition for the same after due and detailed study. The proposal may be agreed upon after completing the necessary regulatory process.

16.64 CSPDCL has also proposed to provide Transformer, Switchgear and other equipments to big LT consumers on fixed rental basis provided they avail an HT connection.

16.65 While the Commission also agrees, in principle, with the second proposal, it directs CSPDCL to conduct a detailed study and submit a proposal.

Restricition on Movement of Consumers Between Categories

16.66 CSPDCL has submitted that the consumers are often switching over to lower load factor tariff categories to avail the tariff benefits and has proposed to restrict such switchover once in two years time so that the prudency of estimation for determination of tariff may be maintained.

16.67 The Commisison does not wish to curtail the consumer’s right to choose its tariff category as per its use and has rejected the above proposal of CSPDCL.

Removal of Restriction of Connected Load from the Demand Based Tariff Categories

16.68 CSPDCL has submitted that there is no significance of the connected load of a consumer covered under demand based tariff therefore it has proposed to remove restriction of connected load from the demand based tariff categories of LT consumers, in line with HT consumers.

16.69 The Commission agrees with the arguement made by CSPDCL and has accepted the above proposal.

Revenue From Delayed Payment Surcharge

16.70 Currently, 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 arears, if any, but excluding amount of surcharge), is payable in addition, from the due date of payment as mentioned in the bill.

16.71 CSPDCL has proposed that the income from this delayed payment surcharge (DPS) should not be considered as the part of the non-tariff income for CSPDCL as CSPDCL also has to pay interest to its lenders on account of delayed payments.

16.72 The Commission does not find any merit in the argument made by CSPDCL. DPS shall continue to be treated as non-tariff income of the licensee.

Higher Tariff in Theft Prone Areas

16.73 CSPDCL has proposed to link the tariff to distribution loss in the system and has proposed to impose additional surcharge on theft prone areas/feeders.

16.74 The Commission is of the view that an additional surcharge on consumers in theft prone areas will lead to penalization of honest consumers in these areas at the cost of persons involved in the theft of electricity. It may also discourage the honest consumers in these areas from paying their bills.

16.75 Instead of a levying a surcharge on the consumers in these areas, CSPDCL is directed to study and formulate a scheme of incentives and disincentives for staff stationed in these areas and submit the same to the Commission, for approval.

Revenue at Approved Tariff

16.76 The expected consumer category-wise revenue from the approved tariffs given in the tariff schedule, and the average tariff for FY 2011-12, is given in the Table 236 below:

Table 236: Revenue at Tariff Approved by the Commission

Consumer Categories		Revenue (Rs. Cr)	ABR (Rs/kWh)
LV-1	Domestic	660	2.22
LV-2	Non Domestic	245	4.39
LV-3,4	Agriculture	256	1.23
LV-5	LV Industrial	203	4.42
LV-6	Public Utilities (PWW & SL)	36	2.29
LV-7	Temporary	43	4.25
	Sub Total – LV	1443	2.27
EHV-1	Railway Traction	372	4.82
EHV-2	Heavy Industries	345	5.21
EHV-3	Steel Industries	173	3.86
EHV-4	Coal Mine, Cement & Other	320	4.74
	Sub Total - EHV	1209	4.73
HV-1	Steel Industries	1392	3.78
HV-2	Coal Mines & Cement Ind.	145	5.05
HV-3.1	Other HT Industries	204	4.73
HV-3.2	Other HT Industries	14	5.12
HV-4.1	Low Load Factor Industries	43	4.95
HV-4.2	Low Load Factor Industries	0.50	4.49

Consumer Categories		Revenue (Rs. Cr)	ABR (Rs/kWh)
HV-5.1	Residential Purpose	78	3.22
HV-5.2	Residential Purpose	2	4.03
HV-6.1	General Purpose Non Industrial	175	4.97
HV-6.2	General Purpose Non Industrial	45	5.27
HV-7.1	Public Water works &	9	3.53
HV-7.2	Public Water works &	5	2.98
HV-8	Start Power	31	13.60
HV 9.1	Agricultural Allied Services	2	5.43
HV 9.2	Agricultural Allied Services	1	5.31
	Temporary Supply	5	6.00
	Temporary Supply	3	6.00
	Sub Total – HV	2155	4.07
	Grand Total	**4808**	**3.39**

Cross Subsidy

16.77 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 HT 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 237 below:

Table 237: Cross Subsidy with Existing and Approved Tariffs

		At Existing Tariff		At Approved Tariff		
	Particulars	**ABR (Rs/kWh)**	**ABR /ACOS**	**ABR (Rs/kWh)**	**ABR /ACOS**	**% increase**
LV Consumers	Domestic	1.82	48%	2.22	59%	22%
	Non – Domestic	3.89	103%	4.39	116%	13%
	Agricultural	1.13	30%	1.23	33%	9%
	LT Industry	3.94	104%	4.42	117%	12%
	Public Utilities	1.96	52%	2.29	61%	17%
	Sub Total-LV	**1.97**	**52%**	**2.27**	**60%**	**15%**
EHV Consumers	Railway Traction	4.33	115%	4.82	128%	11%
	Heavy Industries	4.68	124%	5.21	138%	11%
	Steel Industries	3.33	88%	3.86	102%	16%
	Coal Mine, Cement & Other EHV Industries	4.37	116%	4.74	126%	9%
HV Consumers	Steel Industries	3.21	85%	3.78	100%	18%
	Coal Mines & Cement Ind.	4.71	125%	5.05	134%	7%
	Other HT Industries	4.26	113%	4.75	126%	11%
	Low Load Factor Industries	4.49	119%	4.95	131%	10%
	Residential Purpose	3.03	80%	3.23	86%	7%
	General Purpose Non Industrial	4.55	121%	5.03	133%	10%

	Particulars	At Existing Tariff ABR (Rs/kWh)	ABR /ACOS	At Approved Tariff ABR (Rs/kWh)	ABR /ACOS	% increase
	Public Water works & Irrigation	2.94	78%	3.33	88%	13%
	Start Power	12.39	328%	13.60	360%	10%
	Agricultural Allied Services	4.96	131%	5.41	143%	9%
	Sub Total-HV	**3.78**	**100%**	**4.29**	**113%**	**13%**

Cross-Subsidy Surcharge

16.78 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 238 below:

Table 238: Cross Subsidy Surcharge for Open Access Consumers

Particulars	EHV Consumers	HV Consumers
Average Rate of Subsidizing Categories	4.73	4.12
Average Cost of Supply	3.78	3.78
Cross Subsidy Surcharge	0.95	0.34
Cross Subsidy Surcharge at 90% of the computed value	**0.85**	**0.31**

16.79 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 EHV consumers 47 paise/unit (which is 50% of the computed value of Rs. 0.95 per unit).

b) For HV consumers 17 paise/unit (which is 50% of the computed value of Rs. 0.34 per unit).

Date of applicability of tariff

16.80 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.

16.81 In this tariff order, the Commission has created a regulatory asset of Rs. 343 Cr from the revenue gap of CSPDCL. Due to this the distribution utility shall not be able to recover the full cost as per the ARR resulting 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.

17 TARIFF SCHEDULE

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 2 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, gurudwars ; 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 (Non-Telescopic)	Fixed Charge (In Rupees per unit)	Energy Charge (Rs. per unit)	Minimum Fixed Charge
LV-1: Domestic				
Domestic including BPL Consumers	0 -100 units 0 - 200 units 0 - 500 units 0 - 700 units 0 - Above 700 units	1.10 per unit 1.15 per unit 1.45 per unit 1.85 per unit 2.40 per unit	0.70 0.75 0.95 1.25 1.60	Single phase-Rs.30/- p.m. Three phase-Rs.100/- p.m.

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. Since the CSPDCL has confirmed that meters have been provided to all BPL domestic connections, hence unmetered category of BPL domestic consumer is now discontinued. Henceforth, all BPL domestic category of consumers shall be billed as per meter reading. All the new BPL domestic connection 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 centers, 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, single phase 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 and other consumers not covered under any other category of LT consumers.

2. Tariff

Category of consumers	Unit slab (Non-telescopic)	Fixed Charge. (in Rs. per unit)	Energy charge (Rs. per unit)	Minimum fixed charge
LV-2.1:Non-Domestic (Normal Tariff)	0 – 100 units 0 - 500 units 0- Above 500 units	Rs. 2.25 Rs. 2.45 Rs. 2.80	1.50 1.65 1.90	Single phase Rs.50 PM Three Phase Rs.200 PM
LV-2.2: Non-Domestic Demand Based Tariff (for Contract demand of 15 to 75 kW)		**Demand charges –** Rs. 135 / kW / Month on billing demand	3.80	

Note:
The tariff LV-2.2 will be optional.

Demand based tariff LV– 2.2 is applicable for contracted demand from 15 KW to75 KW. All existing L.T. non-domestic connections having contracted load of above 100 HP (75 Kw) and availing tariff LV-2.1were directed to avail H.T. supply by 31.12.2005.If they have not switched on to HT supply so far, then shall pay an additional charge @ 30 % of the total amount of monthly bill (fixed and energy charge).

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 unit)
	LV-3: L.T. Agriculture		
	Metered Supply	Rs. 20 /HP / Month	1.10

One 40W incandescent bulb/CFL of appropriate wattage not exceeding 20 W is permitted at or near the motor pump set in the power circuit.

Notes:

i) Since the CSPDCL has confirmed that meters have been provided to all the pump connections hence flat rate tariff category for billing to unmetered pump connection is discontinued in this tariff. Henceforth, all the pump connections shall be billed as per meter reading.

ii) All new agriculture connections shall be served only with meters and shall be billed on the basis of consumption recorded in the meter.

iii) 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.

iv) 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.

v) 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 unit)
LV-4.1: Up to 100 HP or 75KW	Rs 50 per HP per month or Rs.67 per KW per month	2.75

LV-4.2: Demand based tariff for contract demand of 15 to 75KW	Rs.134 per KW per month on billing demand	2.60

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 unit)
	LV-5: L.T. Industry		
5.1	Flour mills, Hullers, power looms, grinders for grinding masalas up to 15 HP	Rs.20/HP/ Month	2.25
5.2	**Other Industries**		
5.2.1	Up to 25 HP	Rs.50/HP/Month	2.80
5.2.2	Above 25 HP up to 100 HP	Rs.90/HP/Month	3.40
5.3	**Demand based Tariff** - for contract demand of ***15KW to 75 KW***	**Demand charges-** Rs.135 /KW/Month on Billing Demand	3.40

Notes:

i) Consumers having contracted load above 100 HP (75 KW) were required to avail H.T. supply by 31.12.2005. Such consumers, who have not yet changed over to HT connection 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 unit)
LV-6: Public utilities Public street light and water works	Rs. 40 /HP/Month or Rs. 54 /KW/Month	2.00

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 7 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 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 contact demand /maximum demand in fraction shall be rounded off to the next whole number.

5. 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.

6. Power Factor Incentive and Surcharge

   a) All LT industrial, agriculture allied, and public water works 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 to maintain average monthly power factor of 0.85 or above failing which they are required to pay power factor surcharge @30 paise per unit on the entire consumption for the month.

c) All LT non-domestic consumers with contracted load/connected load of 15 ***KW*** 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 unit on the entire consumption of the month.

d) 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 unit 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.

e) 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.

f) 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.

g) 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 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.

h) 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.

7. 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 times restrict their maximum demand to the contract demand. In case the maximum demand in any month exceeds the contract demand, the said demand based tariff (LV–5.3/LV-4.2/LV- 2.2) shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so availed, in any month, shall be charged at the rate of one and half times of the normal tariff applicable to the consumer (fixed and energy charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand. For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:

a) Billing demand: The demand in excess of the contract demand in any month shall be the billing demand.

b) Units of Energy: the units of energy corresponding to KW portion of the demand in excess of the contract demand shall be:-

$$EU = TU\left(1-\frac{CD}{MD}\right)$$

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.

8. **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 arears, 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.

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.500, and shall be adjustable in next month's bill.

10. **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.

11. **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.

12. **Tax or Duty**

The tariff does not include any tax or duty, etc. on electrical energy that may be payable at any time in accordance with any law in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

13. **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

14. 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	320	2.95

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 KWh)
EHV-2: HEAVY INDUSTRIES	320	3.25

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.

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./KWh)
EHV- 3: Steel Industries	320	2.70

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.

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 KWh)
EHV-4: other EHV consumers	320	3.60

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.

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	330	2.75
HV-1.2: Steel Industries at 11 KV	340	2.85

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	330	3.60
HV-2.2: Mines and Cement Industries at 11 KV	340	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.

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	330	3.20
HV 3.2: Other H.T. Industries at 11 KV	340	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 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 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	175	3.50
HV 4.2 : Low load factor industries at 11 KV	180	3.60

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 for the residents and other general purpose load put together 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	330	2.40
HV 5.2 : Residential at 11 KV	340	2.50

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	330	3.65
HV 6.2: General Purpose Non-Industrial at 11 KV	340	3.75

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	175	2.30
HV 7.2: Public Water Works and Irrigation at 11 KV	180	2.40

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 KWh)
HV-8 : Start-up power tariff	170	3.70

3. Determination of Demand

The maximum demand of supply in each month shall be four times the largest number of Kilo Volt Ampere hours delivered at the point of supply during any consecutive 15 minutes during the month as per sliding window principle of measurement of demand.

4. 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.13.60 per unit as per 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 its actual demand exceeds the contract demand, the billing for that month shall be as per other start-up power consumer exceeding contract demand.

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	330	2.90
HV 9.2: Agriculture allied activities at 11 KV	340	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 in the month as per sliding window principle of measurement of demand.

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 9 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 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.

Time of Day Tariff

This tariff is applicable to EHT and HT industrial consumers. Under the Time of Day (TOD) Tariff, electricity consumption and maximum demand in respect of EHT and HT 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 a.m 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, HV-2 and HV-3 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 are 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	300 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

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. But in such a case, metering and billing will be done separately for each point of supply.

3. **Billing demand**

The billing demand for the month shall be the maximum demand (in KVA) of the consumer recorded during the billing month or 75% of the contract demand or 60 KVA whichever is higher except for zero contract demand consumer. 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.

4. **Minimum Charge**

The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

5. **Power Factor Incentive / Surcharge**

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 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

6. Rounding off

The amount of HT 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.

7. 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.

8. Advance Payment Rebate -

A rebate @ 0.5% per month will be payable on net amount of advance at the end of the billing cycle of that particular month, subject to the net amount of advance is not less than Rs.20,000, and shall be adjustable in next month's bill.

9. Additional Charge for Exceeding Contract Demand

The consumers should restrict their maximum demand to the extent of contract demand. In case the maximum demand during any month exceeds the contract demand, the foregoing tariffs shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so availed, if any, in any month shall be charged at one and half times of the normal tariff applicable to the consumer (demand and energy charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand.

For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:-

i. **Billing Demand / Contract Demand:**

The demand in excess of the contract demand in any month shall be the billing demand/ contract demand of the excess supply.

ii. **Units Energy:**

The units of energy corresponding to KVAs of the portion of the demand in excess of the contract demand shall be:

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.

10. Additional Charge

The HT consumers having contract demand exceeding the maximum limit as prescribed in clause 1 of terms and conditions of EHV & HV tariff with the approval of competent authority, shall be levied additional charges at the rate of 5% on energy charges of the respective consumer category.

11. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of HT and EHT consumers

12. Tax or Duty

The tariff does not include any tax or duty, etc. on electrical energy that may be payable at any time in accordance with any law / State Government Rules in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

13. Dispute on applicability of tariff

In case of any dispute on applicability of tariff on a particular category of HT/EHT industry/ consumer, the decision of the Commission shall be final and binding.

14. Notwithstanding the provisions, if any, contrary to the agreement entered into by the consumer with the CSPDCL, all conditions prescribed herein shall be applicable to the consumer.

15. Parallel Operation Charges (POC)

Parallel operation charges shall be payable by CPP to CSPDCL for its captive and non-captive load at the rate, 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

16. 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 62.3333 crores.

ii) For short-term open access customer: Rs.270/MWh (or Rs.0.27 per unit)for the energy computed based on reserved capacity 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 4.67 % 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.180/MWh (or Rs.0.18 per unit) for the energy computed based on reserved capacity 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 85 paise/unit (which is 90% of the computed value of Rs. 0.95 per unit).
ii) For HT consumers 31 paise/unit (which is 90% of the computed value of Rs. 0.34 per unit).

(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 unit weighted average tariff of HT and EHT consumers which is Rs.6.43 per unit (1.5 times of the average billing rate of Rs. 4.29 per unit). 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.8.58 per unit (2 times of the average billing rate of Rs. 4.29 per unit).

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 existing order in the matter shall prevail.

17. Provisions for renewable energy based power generating plant located in the State and supplying power to consumers (located in the State) through open access

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.

a) For EHT consumers 47 paise/unit (which is 50% of the computed value of Rs. 0.95 per unit).

b) For HT consumers 17 paise/unit (which is 50% of the computed value of Rs. 0.34 per unit).

Note: The illustrations for applicable transmission and wheeling charges to be levied on open access customers is shown in **Annexure 5** of the Tariff Order.

18 DIRECTIVES OF THE COMMISSION

18.1 The Commission has observed from the tariff petitions of the three entities viz CSPGCL, CSPTCL and CSPDCL 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 in the interest of consumers as well as for development of power sector in the state.

18.2 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.

18.3 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 and on many of the important directives, effective action has not been taken whereas in certain other cases action has been taken but the seriousness with which the directives were issued by the Commission has not been very evident in their compliance.

Common Directives to all three companies

Compliance of Directives issued in previous tariff order

Business Plan and Investment Programme

18.4 In its previous tariff order, the Commission directed the companies to submit the revised business plan for a period of three years, i.e. FY 2010-11 to FY 2012-13.

18.5 The Commission notes that the directive has been complied with as the companies have submitted the business plans which were approved by the Commission in June, 2010, and on the basis of which the MYT petitions have been filed by the companies.

Gratuity and Pension Fund

18.6 In its previous tariff order, the Commission had directed the successor companies to thoroughly examine the quantum of the Gratuity and Pension Fund needed and to utilize the services of a Fund Manager for proper investment of the fund.

18.7 In compliance of above, CSPDCL has submitted the report on actuarial valuation of the Fund as at 31st December, 2008. CSPDCL has further submitted that it has appointed experts to study and report on management of Pension and Gratuity Fund.

18.8 While appreciating the actions taken so far on the directive given in the previous tariff order, the companies are 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 directs 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 remmitted to the Fund, the Commission directs 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.

Functioning of the Newly Created Companies

18.9 In its previous tariff order, the Commission had directed the successor companies to establish their financial wings, appoint separate Company Secretaries, get the accounts audited for Jan 2009 to March 2009 as per the provision of Companies Act, 1956. The Commission had also directed that CSPDCL should enter into long-term power purchase agreement with CSPGCL at the earliest and long term Transmission Services agreement with CSPTCL immediately.

18.10 In response, all three companies replied that they have created separate finance wings. CSPGCL is currently outsourcing services of a Company Secretary. Further, the three companies have submitted that audit for 2008-09 has been taken up by auditors. Regarding the long term PPA, an MoU has been signed between CSPDCL and CSPGCL. Subsequently, in compliance of MoP directives, PPA has also been signed for new projects on 3rd January 2011.

18.11 The petitioners haven't mentioned about the long term Transmission Services Agreement between CSPTCL and CSPDCL, which implies that the same has not been implemented as of now. The CSPTCL is required to prepare the draft long-term open access transmission agreement and should be submitted for approval to the Commission by 30th November, 2011. The Commission also directs that CSPDCL and CSPGCL should sign detailed PPA and draft for the same should be submitted by CSPDCL for the approval of the Commission by 30th November, 2011.

Approval of renovation and modernization schemes and large schemes

18.12 In its previous tariff order, the Commission had directed the successor companies to submit the scheme wise details of the capital expenditure for each scheme involving an expenditure of Rs. 5 Cr and above for prior approval. The Commission had further directed the successor companies to submit the detailed project reports and cost-benefit analysis wherever necessary.

18.13 As mentioned in Para 18.5, the petitioner had submitted the above details in the Business Plan in June, 2010.

Directives Common to all three companies

A&G Expenses

18.14 The Commission has observed that the A&G expenses of the companies have increased abnormally even considering the allocation of expenses of the Holding Company in the A&G expenses of the three companies. The Commission therefore directs the successor companies to review the provision/policies made for A&G expenses and ensure judicious use of the amounts allocated towards A&G expenditure. The A&G expenses should be contained within the limits sprecified by the Commission in this tariff order.

Annual Performance Review and Tariff Filing

18.15 As per clause 4 and clause 8 of the CSERC MYT Regulations, 2010, all the three companies are required to submit the petition for Annual Performance Review. CSPDCL is also required to file petition for retail tariff for FY 2012-13. The companies should ensure timely submission of the petitions including petition for true up of the previous years by November 2011.

Directives to Generation Company (CSPGCL)

Status of Compliance to Directives issued in previous tariff order

Installation of weightometer in generating stations

18.16 In its **previous** tariff order, the Commission had directed CSPGCL to expedite the work of installing and commissioning weightometers on all the generating stations and submit progress report to the Commission.

18.17 In response, CSPGCL has submitted that in KTPS, Korba East, weightometers have been installed and commissioned on all feeders of all units. In all the four units (4x210 MW) of HTPS, Korba West weightometers have been installed and all are working satisfactorily. Resolution of calibration issues is in progress. In DSPM TPS, Korba East weightometers have been installed on each Raw Coal feeder. A total of 14 weightometers have been installed and are running satisfactorily.

18.18 The Commission is satisfied with the updated progress given by the Generation Company but directs the company to submit the completion report for all the stations with details to the Commission 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.

Energy audit of power station

18.19 In its previous tariff order, the Commission had directed CSPGCL to prepare a time bound programme for energy audit of all of its power stations including hydel and small hydel power stations and submit the same to the Commission.

18.20 CSPGCL has replied that action is being taken for conducting Energy audit of different thermal power stations in FY 2010-11. The energy Audit status of different power stations is as under :

a) Korba West Plant- Energy Audit carried out by M/s Energy Management Services Kolkata. The final report is expected shortly.

b) DSPM TPS- Order has been placed on PCRA Mumbai. The kick off meeting is expected in April 2011.

c) KTPS, Korba East – Energy Audit conducted by M/s SEE Tech Solutions, Nagpur in Dec 2010. Final report is expected in due course of time.

18.21 The Commission is satisfied with the response of the company. However, it should submit power station-wise status report in this regard on half yearly basis to the Commission.

Tariff Structure

18.22 In its previous tariff order, the Commission had directed the CSPGCL to allocate the assets and liabilities of CSPGCL to each generating station and submit two part tariff consisting of Fixed Charge in Rs. Cr/month and Energy Charge in Rs/kWh in the MYT Petition for the control period of FY 2010-11 to 2012-13.

18.23 CSPGCL has submitted that it has prepared its tariff petition in compliance with the above mentioned directive.

18.24 The Commission has accepted CSPGCL's submission in this regard.

Quality of coal and performance parameters

18.25 In its previous tariff order, due to deteriorating performance parameters of CSPGCL stations in terms of PLF, station heat rate and secondary fuel oil consumption, the Commission had directed CSPGCL to pursue the matter of poor quality of coal with Coal India Limited (SECL). Further, the Commission had directed CSPGCL to submit quarterly report on performance parameters and fuel information to the Commission.

18.26 In response, CSPGCL has submitted that regarding quality of coal, continuous vigorous pursuance is being made at all levels.

18.27 The Commission, in its previous tariff order, has already asked CSPGCL to apprise the State Govt. of the situation regarding poor quality of coal so that the matter can be taken up by the State Govt. at the appropriate level. Continuous use of poor quality of coal as compared to the designed value will deteriorate the life of the power plant machinery. Considering the importance of the matter, CSPGCL is again directed to take up the matter vigorously with concerned authorities.

Optimization of Hydel Generation

18.28 The Commission had directed CSPGCL to operate its hydel-generating stations in coordination with the State Irrigation Department and optimize the hydel generation.

18.29 In response, CSPGCL has submitted that efforts are being made to coordinate with Water Resource Department for optimization of hydel generation. However, hydro generation had suffered in FY 2009-10 due to low rainfall.

18.30 The Commission has accepted CSPGCL's submission in this regard.

New Directives to CSPGCL

Mock Billing

18.31 In response to the Commission's query, CSPGCL has submitted that it would start mock exercise for implementation of billing on the basis of ABT mechanism by July 2011. The Commission directs CSPGCL to make necessary arrangements for metering timely and adhere to the deadline submitted by it and start mock exercise on time.

Repair and Maintenance Expenses

18.32 Repair and maintenance is an important activity. The performance of power stations largely depends upon proper upkeep of the plant and machinery. It is in the larger interest of utility and consumers that the power stations are operated with best possible efficiencies. The Commission wishes to underline that utility must apply check while incurring expenses on repair and maintenance activities. While essential works needed for security, safety and efficient operation of plants must not be neglected, at the same time decorative works and frills (whether under R&M head or A&G head) should be avoided. 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 direction may still be considered as a fair guiding principle.

Directives to Transmission Company (CSPTCL)

Compliance to Directives issued in previous tariff order

Transmission losses

18.33 In its previous tariff order, the Commission had directed CSPTCL to thoroughly check correctness of the transmission loss reported for the FY 2007-08 and take action for loss reduction by timely implementation of the system improvement works.

18.34 CSPTCL has submitted that it has complied with the Commission's Directives on loss reduction.

18.35 The Commission is satisfied with the progress made by CSPTCL in reducing transmission losses. It has noted that the transmission loss achieved by CSPTCL in FY 2009-10 was lower than the target set by the Commission in its previous tariff order. However, the targets for transmission loss reduction have been given in this order for each year of the control period which should be met.

State Energy Account

18.36 In the tariff order 2009-10, CSPTCL was directed to coordinate with SLDC and CSPDCL and get State Energy Account prepared quarterly by SLDC to know the exact quantum of energy input in the transmission system, inter-state export and import of electricity, energy sent to distribution periphery and the energy sales to EHV consumers.

18.37 The above directive was issued as per mandate of Section 32 (2) of Electricity Act, 2003. The CSPTCL did not get complied by SLDC with the above directive and the quarterly state energy account in the specified format, which was forwarded to CSPTCL, was not submitted. The need for submitting the state energy accounts is re-iterated and CSPTCL is directed to coordinate with SLDC to ensure that the same is submitted to the Commission by SLDC, in the specified format, quarterly.

New Directives issued to CSPTCL

Mock Billing

18.38 In response to query by the Commission, CSPTCL has submitted that it shall start mock billing according to the CSERC MYT Regulations, 2010 from October 2011 onwards. The Commission agrees with CSPTCL's proposal and directs it to raise the mock 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 is also directed to submit monthly statement of the availability factor at the end of each quarter starting from October 2011.

Repair and Maintenance Expenditure

18.39 Repair and maintenance is an important activity. While the Commission has approved employee expenses, repair and maintenance expenses and administration and general expenses under one heading as O&M expenses, it is essential that while bifurcating the O&M provisions in different sub-heads at its end, the utility should not neglect the role and importance of repair and maintenance activity.

18.40 The Commission also wishes to underline that utility must apply check while incurring expenses on Repair and maintenance activities. While essential works needed for security, safety and efficient operation of the transmission system must not be neglected, at the same time decorative works and frills (whether under R&M head or A&G head) should be avoided.

Directives to State Load Dispatch Centre (SLDC)

New Directives issued to SLDC

State Energy Account

18.41 The Commission directs 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 positively submitted to the Commission by July 15, 2011 and subsequent accounts should be submitted regulary on time.

Modalities for Merit Order Despatch

18.42 In *suo-motu* Petition no. 5 of 2010, the Commission has directed the SLDC to submit the modalities of merit order power despatch. As per Section 32 (2) of The Electricity Act, 2003, the SLDC is responsible for carrying out real-time operations for grid control and despatch of electricity within the State through secured and economic operation of the State grid. The Commission observes that the SLDC's response is inadequate. The Commission further directs that the SLDC should submit the modalities of merit order despatch in consultation with CSPDCL by June 30, 2011.

Mock UI Billing

18.43 The SLDC is directed that it shall carryout weekly mock billing for UI in respect of generating stations of CSPGCL from July 1, 2011 onwards upto March 31, 2012.

Directives to Distribution company (CSPDCL)

Compliance to Directives issued in previous tariff order

Energy audit and DSM

18.44 In its previous tariff order, 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.

18.45 In response, CSPDCL has submitted that already 174,692 CFL have been distributed to BPL and DLF consumers in Rajnandgaon District. It has further submitted that agricultural pump consumers are being advised to use ISI certified and star rated pumps, energy efficient foot-valves and to install capacitors of appropriate capacity. Field Officers have also been instructed to check the agricultural pumps & to spread awareness among the cultivators regarding advantage of use of ISI certified pumps, energy efficient foot-valves & capacitors.

18.46 The Commission has observed that CSPDCL hasn't submitted any reply in response to the report of the consultant engaged for the purpose of energy audit and DSM. The Commission directs CSPDCL to submit compliance in this regard on priority basis. The Commission also directs that CSPDCL should prepare a roadmap for this purpose and submit the same to the Commission by October 2011.

DSM for Load Control through Agricultural Feeders

18.47 In its previous tariff order, the Commission had directed CSPDCL to implement suitable measures under "Atal Jyoti Yojna" scheme for agricultural feeders to minimize the evening peak. However, CSPDCL has not provided any reply with regard to compliance to this Directive.

18.48 While approving the Business plan of CSPDCL, the Commission has granted approval for "Atal Jyoti Yojna" scheme. Considering the increase in load requirement of the state and the relevance of load management under such conditions, the CSPDCL is directed to prioritize separation of agricultural feeders and submit the status report to the Commission on quarterly basis.

Improvement in Billing and Collection Efficiency

18.49 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.

18.50 CSPDCL has submitted that the following actions have been taken in this regard:

(a) 797 AMR (automated meter reading) systems of HT consumers have been commissioned in the State. Work of balance 183 systems is under progress and will be started functioning shortly.

(b) In addition to 20 existing ATP machines, 29 new machines have also been commissioned. 19 new machines are further planned to be commissioned, out of which civil work for 13 ATP machines are under progress.

(c) Bill payment through internet and ATM of SBI is already made available and has further been extended to other banks also.

(d) Head of Departments of CG Govt. have been requested for payment of outstanding energy bills. Regular follow-up is being done with most of the government departments.

(e) At present, 56 franchisees covering 951 villages and 102,509 consumers are functioning on collection based scheme. Now it has been decided to deploy franchisees on input based model as per the norms of REC.

(f) Further, CSPDCL has submitted that the collection efficiency of the state for the year FY 2009-10 has been achieved at 94.49%. HT collection efficiency of all the circles is above 90% except O&M Circle and Jagdalpur. LT Collection efficiency of all the circles is above 90%.

18.51 On scrutiny of the circle-wise statement submitted by CSPDCL, the Commission has observed that the collection efficiency based on current demand for FY 2009-10 was 92.29% for HT collection and 90.9% for LT collection. CSPDCL is directed to make all efforts to achieve the target for collection efficiency fixed by the Commission in this order.

18.52 The Commission has not received any proposal from CSPDCL for implementing an incentive/penalty framework for its employees to ensure in 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.

Checking of Power Theft

18.53 The Commission had directed CSPDCL to expedite measures to reduce the commercial losses i.e. pilferage and theft of electricity and had issued a number of specific directives for the same.

18.54 CSPDCL has submitted that it is undertaking the regular checking of theft prone area in each circle by the O&M as well as by vigilance team. Further, field officers have been instructed to follow-up the guidelines to deal theft cases under Section 126 and 135 of the Electricity Act 2003. Regarding the Commission's directive about laying of aerial bunch cable in theft prone area, CSPDCL has replied that an order for laying 288 km of aerial bunch cable has been issued to M/s Tyco Electronics, Mumbai. Total 122.27 km of cable has been laid. Besides this, 37.05 km PVC/AB cable has been laid by the CSPDCL.

18.55 The reply submitted by CSPDCL is totally unsatisfactory. In the tariff petition filed for FY 2009-10 CSPDCL has submitted that 56 km of aerial bunch cable was laid and now in this compliance report it is reported that a total 122.27 km has been laid. Thus CSPDCL only managed to lay 66.27 km of cable during FY 2009-10. The progress achieved is poor and needs to be improved. CSPDCL should submit to the Commission when the order for aerial bunch cable was placed and the estimated date of completion of the project. CSPDCL should also prepare a detailed scheme with future planning in this regard to cover more theft prone areas Report on this aspect be submitted to the Commission by August, 2011.

Distribution losses and AT&C losses

18.56 In its previous tariff order, the Commission had directed CSPDCL to fix up a circle-wise trajectory for loss reduction and prepare a detailed action plan for reduction of distribution and AT&C losses. The Commission had also directed CSPDCL to create separate cell for monitoring losses and implementation of all schemes and actions for reduction of AT&C losses.

18.57 In response to this, CSPDCL has submitted that it has prepared circle wise trajectory for loss reduction and detailed action plan for reduction of distribution and AT&C losses during FY 2009-10, details of which were submitted to the Commission in the month of October 2009. CSPDCL has also created a separate cell for monitoring T&D and AT&C losses, implementation of all schemes and all action for reduction of AT&C losses.

18.58 Considering the performance parameters submitted, the Commission is not satisfied with the progress of CSPDCL in this regard. The Commission directs that CSPDCL should prepare and submit circle-wise trajectory and target of loss reduction and collection efficiency for FY 2011-12 and FY 2012-13 along with an action plan to achieve the same by 30th June, 2011. Such circle wise trajectory should be consistent with the targets given by the Commission in this regard in this order. This would help CSPDCL to properly monitor the performance of circles and improve commercial functioning of the company. The Commission directs the company to comply with the directive and report the performance against targets to the Commission on quarterly basis.

HT Consumer Cell

18.59 In its previous tariff order, the Commission had directed that CSPDCL should take immediate action of procuring/arranging the CTPT units for HT consumers and ensure that the request for HT connections do not remain pending for want of CT PT units and meters in future.

18.60 In its tariff petition, CSPDCL has submitted that during this period 40 complaints were received in HT Consumer cell out of which 32 complaints have been settled and 8 are under process of re-dressal.

18.61 The Commission has noted that HT consumption is showing a declining trend. The downward trend in HT consumption is not good for the health of the distribution company. The Commission feels that the pending cases of HT connections are not being properly monitored and followed by the HT cell to ensure timely release of HT connections. Thus, the Commission directs the distribution company 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.

Timely and correct preparation of R-15 statement

18.62 In its previous tariff order, the Commission had directed CSPDCL to remove discrepancies in R-15 and prepare R-15 using SAP software.

18.63 In response, CSPDCL has submitted that it has already configured HT & LT R-15 from SAP system as per consumer categories approved in the tariff order except for some of BPL and temporary connections in few D/Cs. The balance works in D/C will be completed shortly.

18.64 The Commission is satisfied with the progress update given by the Distribution Company but directs CSPDCL to complete the balance work on priority and submit the completion report to the Commission at the earliest. Also, since 100% metering of BPL connections has already been achieved the Commission directs that the billing of all the balance BPL connections should also be computerized during FY 2011-12 to avoid manual preparation of the bills.

Consumer Interface

18.65 In its previous tariff order, the Commission had directed CSPDCL to start call centres at Raipur and other places, which should handle consumer complaints related to supply interruption, billing complaints and application of new connections etc.

18.66 CSPDCL has submitted that the call centres at Raipur, Bilaspur, Durg-Bhilai towns are in operation.

18.67 As per the reports received by the Commission, presently, the call centers in operation are working as ‘fuse off’ call centers only and not as actual call centers to deal with the cases of billing, payments and new applications for connections. There is also provision for opening of computerized call centers in R-APDRP scheme. CSPDCL is directed to ensure opening of new computerized call centers and ensure proper functioning of the call centers. The company should also record and analyze the input data for improvement in functioning of the system.

New Directives for CSPDCL

Installation of Capcitors

18.68 The Commission directs the utility to study the aspect of installation of capacitors in more than 3 HP and upto 5 HP agriculture pumps by CSPDCL and maintain it by collecting payment from cultivators. CSPDCL should submit the proposal regarding this for the Commission’s approval by 30th September, 2011.

Installation and Maintenance of Equiptment needed for HT Connections

18.69 It is proposed by CSPDCL that it would provide transformers, switchgears, etc for HT connections and undertake maintenance of these by charging monthly fee. The Commission directs CSPDCL to evaluate this proposal by estimating costs associated with installation of these equipments for HT connections and monthly charges and submit a detailed proposal for approval by 30th September, 2011.

18.70 There has been repeated references from small and cottage industries especially in rural areas that they are required to pay high cost of extension of line for new connections as compared to the cost of installation of industry and have pleaded for fixing the average rate for extension on per/HP basis. CSPDCL is directed to study the same and submit the detailed proposal by 30th September, 2011.

Schemes under R-APDRP

18.71 CSPDCL should submit details on implementation of R-APDRP schemes such as proper planning and execution of schemes, 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 the 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.

Power Procurement Plan

18.72 The Commission directs the CSPDCL to prepare a 10-Year Master Plan for the 12th and 13th Five Year Plans related to their load growth, power availability and to plan for long term PPAs to ensure sufficient availability of power for its consumers in the future at reasonable rate. It should submit the same to the Commission by 31st October, 2011.

Meter Reading

18.73 CSPDCL has submitted that it has completed 100% metering of its agricultural and BPL connections. It is thus 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. The Commission has also received number of complaints that meter reading is not being done in a timely manner even for the domestic consumers. CSPDCL is directed to ensure that correct and timely meter reading is done for all its consumers.

18.74 CSPDCL is directed to expedite the installation of ongoing work of Automated Meter Reading of HT consumers. The work of automated meter reading for LT consumers having load 50 HP and above shall also be taken up on priority.

Power Purchase

18.75 In *suo-motu* Petition no. 5 of 2010, "*In the matter of terms and conditions and pricing of power to be purchased in short-term from captive generating plants (CGPs) and IPPs of the State of Chhattisgarh by the Chhattisgarh State Power Distribution Company Ltd. for the year 2010-11*", the Commission had directed that CSPDCL should submit a quarterly report of power purchased from all sources by August 2010, November 2010, February 2011 and May 2011. As per Section 86 (1) (b) of the Electricity Act, 2003, the state commissions are mandated to regulate the power procurement process of a distribution licensee including the prices at which electricity shall be procured from all the sources. The Commission had already specified guidelines for power purchase and procurement process on 22nd March 2006. These guidelines were specified after the due regulatory and consultation process. The Commission directs that the CSPDCL should submit the quarterly report of details of the power purchased by it from all the sources in the R4 format specified for determination of tariff.

19 ANNEXURES

Annexure 1 List of Objectioners

1	ACB (India) Limited, Katghora, Korba	26	Dr (Smt) Kiranmayee Nayak, Mayor, Raipur
2	Adhivakta Sangh, Jagdalpur	27	Dr. Shri C.L. Sinha, Jawahar Nagar, Durg
3	Bastar Chamber of Commerce, Jagdalpur	28	Dy. Commissioner (Planning), Nagar Palika, Raipur
4	Bastar Jila Congress Commitee (Shahar), Jagdalpur	29	East Coast Railway, Bhubneshwar (Orissa)
5	Bastar Kisan Sangh, Jagdalpur	30	Executive Engineer, Vidyut Vibhag, Nagar Palika, Raipur
6	Bhajmat, Hariharpur	31	Gen Secretary, Block Congress Committee, Surajpur
7	Bhartiya Yuva Congress, Bilaspur	32	General Secretary, CG Vidyut Mandal Abhiyanta Sangh
8	Bilaspur Industrial Traders and Commerce Association, Bilaspur	33	Gopal Mukherji, Member CSERC State Advisory Committee
9	Bilaspur Timber Vyapari Sangh, Mungeli Road, Bilaspur	34	Jila Congress Committee, Bastar
10	Bilaspur Vyapari Mahasangh, Subhash Nagar, Bilaspur	35	Jila Congress Committee, Bilaspur
11	Central Bengali Association, Talapara Road, Binoba Nagar, Bilaspur	36	Jindal Agro Mills, Sarguja
12	Chhatisgarh Chambers of Commerce, Bilaspur	37	M/s AC Steels, Raipur
13	Chhattisgarh Federation of Industries, Bahnpuri, Raipur	38	M/s Aman Agro Industries, Sarguja
14	Chhattisgarh Investment, Kharora	39	M/s Aman Floor and Rice Mill, Sarguja
15	Chhattisgarh Laghu & Sahayak Udyog Sangh, Bilaspur	40	M/s Anmol Rice Industry, Jashpur
16	Chhattisgarh Mini Steel Plant Association, Raipur	41	M/s Baldev Alloys Pvt Ltd, Raipur
17	Chhattisgarh steel Re-Rollers Association, Raipur	42	M/s Bhawani Metals (P) Ltd, Raipur
18	Chhattisgarh Timber Vyapari Sangh	43	M/s Bhilai Steel Plant, Bhilai
19	Chhattisgarh Udyog Mahasangh, Raipur	44	M/s Brahaspati Iron and Steel Co. Pvt Ltd, Rasmada, Durg
20	Commissioner, Municipal Corporation, Raipur	45	M/s Chhatisgarh Ferro Trades Pvt Ltd, Raipur
21	Dal Mill Association, Bhatapara	46	M/s Chhattisgarh Mini Steel Plant Association, Raipur
22	Dayanand Sharma	47	M/s Coal Filled Engineering Works, Ambikapur
23	Dhamtari Gramin and Shahar Chakki and haller Mill Sangh, Dhamtari	48	M/s Cosmos Castings India Ltd, Raipur
24	Dhanjibhai Jetwa, Mundra, Abhanpur	49	M/s G P Ispat Pvt. Ltd., Raipur
25	Directorate, Matsyaudyog, Raipur	50	M/s Ghankun Steels Pvt. Ltd, Siltara, Raipur

51	M/s HSR Re Rollers, Raipur	74	M/s Sri Ram Agrotech, Jashpur
52	M/s Indo Lahiri Bio Power limited, Dharsiwa, Raipur	75	M/s Sunil Sponge Iron Pvt Ltd, Siltara, Raipur
53	M/s Ispat India, Raipur	76	M/s Sunil Steels, Raipur
54	M/s Jai Ambey Metal Works Pvt. Ltd, Raipur	77	M/s Super Iron and Steel Pvt Ltd, Urla, Raipur
55	M/s Kailash Castings (P) Limited, Siltara,	78	Nagar Palika, Durg

	Raipur		
56	M/s Kontinental Steel Korporation, Kumhari, Durg	79	Nand Kashyap, CPI (M)
57	M/s Krishna Iron Strips & Tubes Pvt. Ltd, Raipur	80	Narayan Mandal
58	M/s Lanco Solar Private Limited, Raipur	81	Narmada, Adchi
59	M/s Mangal Sponge and Steel Pvt Ltd, Belha, Bilaspur	82	Pavita
60	M/s Maruti Ferous Pvt Ltd, Raipur	83	Poha Murmura Nirmata Kalyan Samiti, Bhatapara
61	M/s NECC, Raipur	84	Pranesh Krishi Farm, Jhulum, Abhanpur
62	M/s Nutan Ispat and Power Limited, Dharsiwa, Raipur	85	Pravin Gupta, Bar Council
63	M/s Om Rice Products, Sarguja	86	President, CG Mini Steel Plant Association
64	M/s Omkiran Ispat Udyog, Hirapur, Raipur	87	President, CG State Rice Millers Association, Raipur
65	M/s Pragati Ingots & Power Pvt Ltd, Raipur	88	Rafatullah Khan, Samajwadi party
66	M/s Prayas Steels, Siltara, Raipur	89	Raji Das, Kanti
67	M/s Real Ispat & Power limited, Raipur	90	Rajni Soni, Libda
68	M/s S. R. Ingots Pvt Ltd, Siltara, Raipur	91	Rajya Krishak kalyan Parishad, Telibandha, Raipur
69	M/s Sarda Energy and Minerals Ltd, Raipur	92	Ramesh Rathore
70	M/s Shiv Real Ispat Pvt. Ltd., Raipur	93	Ranjan, Gondwana Gantantra Party
71	M/s Shri O.P. Industry, Jashpur	94	Rashid Ahmed Ansari, Member, District Congress Committee
72	M/s Shri Om Rice Mill, Jaspur	95	Sambhagiya Chamber of Commerce and Industry, Bilaspur
73	M/s Shubh Labh Ispat (P) Ltd, raipur	96	SARDA Energy & Minerals Ltd., Raipur

97	Sarguja Laghu Udyog Sangh, Ambikapur	122	Shri Anand Chauhan, Doomer, Ahiwara
98	Sh. D.K. Parusha, President, Federation Bastar	123	Shri Anand Kumar Chauhan, Kudmuda
99	Sh. K. K. Vasudev, Journalist	124	Shri Anand Mishra, JDU, Bilaspur
100	Sh. Vijay Heliwal, M.D., Heliwal Cold Storage	125	Shri Anand Ram, Kanti
101	Shahar Congress Committee, Raipur	126	Shri Anil Adhikari
102	Shahar Jila Congress Committee (Gramin), Raigarh	127	Shri Anil Chandra, Kapasada
103	Shahar Jila Congress Committee, Raipur	128	Shri Anil Chauhan, Malpuri
104	Shahar Jila Congress Committee, Rajnandgaon	129	Shri Anil Kumar Jat, Dhamda
105	Shailesh Goyal	130	Shri Anil Kumar Jetwa, Raveli
106	Shri Sudip Singh, Amaseoni, Raipur	131	Shri Anil Kumar, Bakali
107	Shri Aakash Kumar, Podikala	132	Shri Anil Laxminarayan Rathi, Dongargaon, Rajnandgaon
108	Shri Achireshwar Kumar Verma, Kareli, Berla	133	Shri Anil Rathore, Bendri
109	Shri Aggan Ram, Kulhari	134	Shri Anil Singh, Rajnandgaon
110	Shri Ajay Hingole	135	Shri Anil Tonk, Charbhata
111	Shri Ajay Kumar Karmakar, Kumhari	136	Shri Anish Ahmad, Corporator, Raipur
112	Shri Ajay Singh	137	Shri Anjum Alvi, ABIS Dairy
113	Shri Ajay Verma, Kodka, Chuikhadan	138	Shri Anurup
114	Shri Ajay, Karji	139	Shri Arjun Ram, Banchri
115	Shri Ajit, Gelhakuwa	140	Shri Arvind Mishra, Janta Dal
116	Shri Amar Nath, Ambikapur	141	Shri Ashish Kumar Agrawal, Lakhe Nagar, Raipur
117	Shri Amar Sahay, Maheshpur	142	Shri Ashish Kumar Shah, Anjani Vihar,Bilaspur
118	Shri Ambhuj Singh Chetwa, Nardha, Durg	143	Shri Ashit Vishwas

119	Shri Amresh Singh, Shanti Nagar, Bilaspur	144	Shri Ashok Chandrakar, Bhujgahan
120	Shri Amrit lal Khodiyar, Murra	145	Shri Ashok Vishwas, Bhagwanpur
121	Shri Anaar Singh, Lalpur, Durg		

146	**Shri Atal Dubey, Akola, Bhimbhouri, Durg**	**169**	**Shri Birendra Singh, Sakra, Kumhari**
147	Shri Ayodhya Kushwaha	170	Shri Bisheshwar Kashyap,Parasada
148	Shri Babu Nath, Khajuri	171	Shri Bodhan, Amadarha
149	Shri Bahura bai, Sakra	172	Shri Boglu, Amadarha
150	Shri Balamji Dharamsi Tonk, Limahi, Rajnandgaon	173	Shri Brijkishore Tiwari, Bhilai
151	Shri Baleshwar Rajwade	174	Shri Budhantin bai Verma, Musrakala, Dongargarh
152	Shri Balvinder Singh and others, Khatti	175	Shri Bupesh Baghel, Ex-MLA
153	Shri Baratu, Tapparkela	176	Shri Chagan Bhai Tonk, Charbhata, Ghumka
154	Shri Behda Ram, Kuniakala	177	Shri Chain Sahay
155	Shri Bhagat Ram, Adchi	178	Shri Chamru Ram
156	Shri Bhagat Ram, Sonbarsha	179	Shri Chandi Thakur, Bhagwan pur
157	Shri Bhagwan Bhai, Kapasada	180	Shri Chandrakant Kodhiyar, Mundra
158	Shri Bhagwati Prasad, Kohdia, Bhimbori	181	Shri Chandrakant, Achoti, Ahiwara, Durg
159	Shri Bhaiya Lal, Chattarpur	182	Shri Chandramani, Libda
160	Shri Bhanu Pratap Singh	183	Shri Charitra Ram, Fatehpur
161	Shri Bhanu Ram, Adchi	184	Shri Chavi Ram
162	Shri Bhavesh Bhai Tonk, Funda, Patan	185	Shri Dahruram, Tapparkela
163	Shri Bhola Nath, Podikala	186	Shri Daniyalal, Bade damali
164	Shri Bhuneshwar Rao, Mundra, Abhanpur	187	Shri Dayaram, Sonpare, Abhanpur
165	Shri Bikul Das, Hindkali	188	Shri Deepak Kumar, Rasmada, Durg
166	Shri Bilas Ram, Podikala	189	Shri Deepesh Tonk, Parasbod, Rajnandgaon
167	Shri Bindhe, Podia	190	Shri Devendra Parmar, Padumtara
168	Shri Binuprasad, Gelhakuwa	191	Shri Devsharan, Fatehpur

192	Shri Dhanesh Patila, Former Energy Minister, Govt of Chhattisgarh	217	Shri Girdhari Sonkar, Jhulum, Abhanpur
193	Shri Dharamraj Mahapatra, Secretary, Communist Party, Raipur	218	Shri Girendra Agrawal, Raveli
194	Shri Dharmendra Singh	219	Shri Girish Padher
195	Shri Dhinaram	220	Shri Girish Tonk, Pisegaon, Durg
196	Shri Dhiraj Lal, Kapasada, Kumhari	221	Shri Gohil, Durg
197	Shri Dileshwar, Khajuri	222	Shri Gopal Mukherjee, Rajkishore Nagar, Bilaspur
198	Shri Dileshwar, Tapparkela	223	Shri Gopal Yadav
199	Shri Dilip Rathore, Kapasada	224	Shri Gopal, Nawapara Khurd
200	Shri Dilip Singh Judev, Member of Parliament, Bilaspur Lok Sabha	225	Shri Govardhan Agrawal, Belha, Bilaspur
201	Shri Dinanath, Kanti	226	Shri Govind Bajaj, President, Bilaspur Industrial Traders & Commerce Association
202	Shri Dinesh Kumar Jetwa, Karanja Bhilai, Durg	227	Shri Govind Ram Choudhary, Gram - Gudiyari, Mahasamund
203	Shri Dinesh Kumar Parmar, Rajnandgoan	228	Shri Gudan Ram, Harratikra
204	Shri Dinesh Kumar Sahu, Parasada, Abhanpur	229	Shri Guddu Ram, Fatehpur
205	Shri Doman Sahu, Mudhpar	230	Shri Gulab ram Verma , Berhapur, Dhamda, Durg
206	Shri Dorelal Sahu, Murmunda	231	Shri Gulab Verma, Rajnandgaon
207	Shri Duhni, Hariharpur	232	Shri Gurjeet Singh Sindhu, CG Sikh

			Sangathan, Raipur
208	Shri Dwitendra Mishra, Ambikapur	233	Shri Gyanendra Sharma
209	Shri fursahay Rai, Fatehpur	234	Shri Halaro, Libda
210	Shri G.L. Maroo, Uparwara, Rajnandgaon	235	Shri Hariprakash, Hindkali
211	Shri Gajendra Kumar Sahu, Jamri, Dongargarh	236	Shri Hariprasad, Amadarha
212	Shri Ganesh Sukhdev, Kapasada	237	Shri Hariprasad, Kanti
213	Shri Geda Ram, Kuniakala	238	Shri Harish Gohil, Kandraka, Kumhari, Durg
214	Shri Ghanshyam Parmar, Pisegaon, Durg	239	Shri Harish Jat, Sahaspur
215	Shri Ghasiyaram, Shri kanhiyaram and others, Kamharmuda	240	Shri Harjeevan Premjibhai, Dhabha, Kumhari
216	Shri Ghurau Ram		

241	Shri Hashit Kumar Mohan Bhai Tonk, Girahi, Rajnandgaon	266	Shri Jeetendra Kumar Sahu, Jamri, Dongargarh
242	Shri Heera Lal, Rajnandgaon	267	Shri Jeevram Bhai Popat Lal Taunk, Karhidih Krishi Farm, Durg
243	Shri Hemand Gohil, Godhi, Durg	268	Shri Jetha Bhai, Sakra
244	Shri Hemant Sahu, Murmunda	269	Shri Jirodhan Rajwade, Birpur
245	Shri Hiladas	270	Shri Kalpnarayan, Kanthi
246	Shri Hira Sahay, Tapparkela	271	Shri Kamal Chandra Agarawal, Jamgaon
247	Shri Hiralal Verma, Berhapur, Tumdibod	272	Shri Kamal Chawda, Khudmuda, Berla
248	Shri Holsai, Fatehpur	273	Shri Kamal Narayan Kashyap, Parasada
249	Shri Hori Lal Sonkar	274	Shri Kamlesh Jayantilal Wadher, Charbhata
250	Shri Hukum Sahay, Koldiha	275	Shri kanchan Ram, Tapparkela
251	Shri Inderchand Dhariwal, Chairman, CG Congress Committee, Raipur	276	Shri Kanti Jaiswal
252	Shri Indramani, Kalyanpur	277	Shri Kantilal Vadher, Mudhipar, Rajnandgaon
253	Shri Ishwar, Podia	278	Shri Kapil Ram, Navagoan
254	Shri Jadhuram, Adchi	279	Shri Karam Sahay
255	Shri Jagannath, Adchi	280	Shri Karish, Tapparkela
256	Shri Jagdhari Ram	281	Shri Kendal Ram, Tamarkela
257	Shri Jagtu Ram Thankur, Corporator, Raipur	282	Shri Ketan Maroo, Uparwara, Rajnandgaon
258	Shri Jaknu Ram, Amadarha	283	Shri Khalu Ram, Fatehpur
259	Shri Jaspal Singh Bedi, Gram - Mangla, Bilaspur	284	Shri Khodiyar, Tikari, Abhanpur
260	Shri Jasraj Jain	285	Shri Kilaj Sai, Rajpuri
261	Shri Jay Ram, Rajpuri	286	Shri Kilip Sai
262	Shri Jayesh Rath, Hingnadih	287	Shri Kishore Kumar
263	Shri Jaynarayan Agrawal, Deori	288	Shri Konteya jaiswal, Ambikapur
264	Shri Jayprakash Chawda, Tendua, Raipur	289	Shri Kripa Ekka, Podia
265	Shri Jayprakash Jaiswal, Sarguja.	290	Shri Kripa Shankar, Kanti

291	Shri Kripashankar	316	Shri Mangal Sahay
292	Shri Krishna Kumar Gupta	317	Shri Manharan Lal Agrawal, Khamharmuda, Mahasamund
293	Shri Krishna Kumar, Kanchanpur	318	Shri Manil Agrawal, Khamharguda
294	Shri Krishna Prasad Dewangan, Mohlai, Durg	319	Shri Manish Agrawal
295	Shri Krishna Prasad Jayaswal, Kalyanpur	320	Shri Manish Chauhan, Kandaraka, Kumhari
296	Shri Kushram	321	Shri Manish Tonk Girdhar Lal Tonk, Ghumka, Rajnandgaon
297	Shri Kuwar Sahay, Karji	322	Shri Manjeet Singh Saluja, Rajnandgaon
298	Shri Lakhmashi Patel	323	Shri Manoj Parmar, Dongargaon, Rajnandgaon

299	Shri Lal Sahay, Kuniakala	324	Shri Manoj Tapadia, Gen Secretary, CG Federation of Industries, Bhanpuri, Raipur
300	Shri Lalan Singh, Birpur	325	Shri Maste Ram, Parasada
301	Shri Lalit Chauhan, Borai	326	Shri Meraj
302	Shri Laxmi Kant, Kapasada	327	Shri Mohd Ayyub
303	Shri Lit Sahay, Podia	328	Shri Mohd Kalim
304	Shri Lochan Ram, Fatehpur	329	Shri Mohit Ram, Podikala
305	Shri Lokuram Sonkar, Tikari, Abhanpur	330	Shri Mritunjay Dubey, Corporator, Ward-
306	Shri Madan Das, Nawapara	331	Shri Mukesh Solanki, Kapasada, Kumhari
307	Shri Madhu Ram	332	Shri Munna Ram
308	Shri Mahadev Rai,Fatehpur	333	Shri Munna Ram, Fatehpur
309	Shri Mahapaur, Raipur	334	Shri N.K. Chandiramani, Anand Nagar, Raipur
310	Shri Mahaveer Thakur, Kandraka, Kumhari, Durg	335	Shri Nageshwar Rao, Nayapara, Churra
311	Shri Mahendra Varu, Kapasada	336	Shri Najram, Rajpuri
312	Shri Mahesh Chandrakar, Lamrakhurd, Mahasamund	337	Shri Nakul, Kalyanpur
313	Shri Mahesh Kumar, Datrenga	338	Shri Nand Kishor Vishbhbhar, Limtara, Kumhari
314	Shri Mahesh Parmar, Mudhpar	339	Shri Nand Kishore, Limtara
315	Shri Mahinath		

340	Shri Nand Kumar Verma, Kareli, Berla	364	Shri Parmanand, Rajpuri
341	Shri Nandeshwar Sahu, Aliwara, Dongargarh	365	Shri Parmeshwar
342	Shri Narayan Singh, Ahiwara	366	Shri Phool Chand, Podia
343	Shri Narayan Singh, Chetua, Durg	367	Shri Phool Kuwar, Libda
344	Shri Narbad Lal Verma, Amlidih, Tumdibod	368	Shri Phool Sahay, Gelhakuwa
345	Shri Naresh Kumar Yadav, Parsada, District-Raipur	369	Shri Pilaram, Tapparkela
346	Shri Narottam Khodiyar, Jamgaon	370	Shri PN Khandelwal, General Secretary, CG Ferro Alloys Producers Association
347	Shri Narsingh, Harratikra	371	Shri Prabhu lal Rathore, Dhabha, Kumhari
348	Shri Nathuram Nishad, Parsada, Abhanpur	372	Shri Prabhu Ram
349	Shri Naveen Kumar, Kapasada	373	Shri Pradeep Varu, Doma
350	Shri Neeraj Pandey	374	Shri Pradeep, Podikala
351	Shri Nehru, Karra	375	Shri Prafull Chauhan, Dongargarh, Rajnandgaon
352	Shri Nem Kumar	376	Shri Prafull Chauhan, Jamri
353	Shri Nilesh Vadher	377	Shri Prakash Chand Jetwa, Karanja Bhilai
354	Shri Niranjan Rai, Ambikapur	378	Shri Prakash Chandra, Karanja Bhilai, Durg
355	Shri Nitesh	379	Shri Prakash Chawda, Tendua, Raipur
356	Shri Nitesh Tank, Abhanpur	380	Shri Prakash, Karba
357	Shri Nohar Sahay, Kanti	381	Shri Pramod Choudhary, Gangapur
358	Shri Omprakash, Mudeja	382	Shri Pramod Kumar
359	Shri Padam Singh Jat, Lalpur, Dhamda	383	Shri Prasant Ekka, Karampur
360	Shri Pahalwan Ram	384	Shri Prashottam, Adchi
361	Shri Pankaj Solanki, Mahmara	385	Shri Praveen Chawda, Malpuri
362	Shri Pankaj Tonk, Nagpura, Durg	386	Shri Pukar Ram
363	Shri Pannalal, Kosmi	387	Shri Pulin Sardar

388	Shri Pusan Singh, Sohga	437	Shri Ram Sahay, Karra
389	Shri Pyarelal , Bakali	438	Shri Ram Vilas, Tapparkela
390	Shri Radhelal Sahu, Parasada	439	Shri Ram, Tapparkela
391	Shri Radheshyam, Maheshpur	440	Shri Ramkaran Singh Kushwaha, Godhi, Durg
392	Shri Raghuram, Adchi	441	Shri Ramlal Das, Karra
393	Shri Raghuveer, Kuniakala	442	Shri Ramniwas Singh, Semariya, Ahiwara
394	Shri Rajeev Agrawal, President, Jila Congress Committee (Vyapar Prakoshtha), Bilaspur	443	Shri Ramprasad, Bhagwanpur
395	Shri Rajendra Chauhan	444	Shri Ramvriksh
396	Shri Rajendra Kumar Tonk, Arasnara, Durg	445	Shri Ramvriksh Singh, Godhi
397	Shri Rajendra Kumar Tonk, Arasnara, Durg	446	Shri Randheer Singh, Ahiwara
398	Shri Rajendra Sharma, Chief Editor, Ispat	447	Shri Ranjan Garg, Lalpur
399	Shri Rajesh Chawda	448	Shri Ranveer Singh, Dhamda
400	Shri Rajesh Singh	449	Shri Ravindra, Sohga
401	Shri Rajeshwar Chaube, Berla, Durg	450	Shri Rifan Ram, Podia
402	Shri Rajkumar	451	Shri Rupdev Kushwaha
403	Shri Rajnath	452	Shri Sachinand Singh, Mohdi, Durg
404	Shri Rakesh Sahu, Durg	453	Shri Sahadur Ram, Maheshpur
405	Shri Ram Charan	454	Shri Sameer Akhtar, Corporator, Raipur
406	Shri Ram charan Kushwaha, Godhi, Durg	455	Shri Sameer, Gelhakuwa
407	Shri Ram Jeet, Sohga	456	Shri Sanjay Kumar Chandrakar & others, Hincha, Amethi, Khamharmuda
408	Shri Ram Karan, Karba	457	Shri Sanjay Shukla, Kalyanpur
409	Shri Ram Kumar, Khajuri	458	Shri Sanjay, Podia
410	Shri Ram Naresh, Karba	459	Shri Sant Kumar
411	Shri Ram Nihor, Kulhari	460	Shri Santa Ram, Fatehpur
412	Shri Sapan Haldar	461	Shri Santosh Singh, Limtara, Kumhari
413	Shri Sashimala (Pratap Singh)	462	Shri Sitaram, Tapparkela
414	Shri Satish Kumar Garg, Lalpur	463	Shri Sodhan, Adchi
415	Shri Satnam Singh, Corporator, Raipur	464	Shri Sohan, Sohga
416	Shri Satyanarayan, karji	465	Shri Soma Ram, Tapparkela
417	Shri Satyendra Nath Dubey, CG Bijli Karamchari Sangh-Mahasangh	466	Shri Somar Sahay, Kanti
418	Shri Seetaram Sahu and others, Parasada, Abhanpur	467	Shri Somar Sahay, Khajuri
419	Shri Sewak Ram, Fatehpur	468	Shri Somnath, Podikala
420	Shri Shakeel Husain, Lakhapar, Bilaspur	469	Shri Sonu, Karra
421	Shri Shambu Ram, kanti	470	Shri Sreeniwas
422	Shri Shankar Lal Agrawal, Gram - Mudra, Jila - Raipur.	471	Shri Sudhu Ram, Maheshpur
423	Shri Shanti lal Tonk, Telkadih, Rajnandgaon	472	Shri Sufer Ramprasad, Kapasada
424	Shri Shantilal Jetwa, Karanja Bhilai	473	Shri Sujeshwar, Gelhakuwa
425	Shri Sharda Alluminium Works, Ambikapur	474	Shri Sukhau Kushwaha, Akola, Bhimbori
426	Shri Shaukat Ali	475	Shri Sukhdev Yadav
427	Shri Shiv Kumar	476	Shri Sukhram Verma, Kodia, Berla
428	Shri Shiva Ram, Tapparkela	477	Shri Sukhsahay, Tapparkela
429	Shri Shivratan, Akola, Durg	478	Shri Sunil Jat, Sahaspur
430	Shri Shyam Chand	479	Shri Sunil Kumar, Lalpur

487	Shri Teli Ram	511	Shri Vishwas, Bartikra
488	Shri Tema Ram, Tapparkela	512	Shrichand Sundrani, Chairman, CGChamber of Commerce and Industries, Raipur
489	Shri Thakur Prasad	513	Smt Anjani Dubey, Akola
490	Shri Thakur ram Sonkar, Murra, Abhanpur	514	Smt Babita Tonk, Temri, Durg
491	Shri TN Bhavnani, Pujya Sindhi Panchayat, Korba	515	Smt Chandrika, Kapasada, Kumhari
492	Shri Tribhuvan Jetwa, Mundra	516	Smt Chetna Ajay Khodiyar, Amlidih
493	Shri TV Singh, Ambikapur	517	Smt Durga Sahu, Bilaspur
494	Shri Udayram Sonkar, Tikari, Abhanpur	518	Smt Girija Bai Verma, Amlidih, Tumdibod
495	Shri Umaprakash Ojha, Bhujgahan	519	Smt Jayshree Solanki, Sewti, Durg
496	Shri Umesh Joshi, Juni Hatari, Rajnandgaon	520	Smt Jyoti Thakur, Tulsi, Simga
497	Shri UP Singh, Chetwa, Durg	521	Smt Kamla Ben Khodiyar
498	Shri Uttam Kumar Patil, Berla, Durg	522	Smt Kanchan bai Tonk, Doma
499	Shri Uttam Mishtri	523	Smt Karuna Verma, Musrakhurd, Dongargarh
500	Shri Vijay Lal, Maheshpur	524	Smt Krishna Devi, Ahiwara
501	Shri Vijay Nikunj, Sohga	525	Smt Kuha bai, Adchi
502	Shri Vikram Singh Kushwaha, Godhi	526	Smt Kumud ben Chauhan, Arjuni
503	Shri Vimal Chawda, Kohdia	527	Smt Lata Boddan, Badhera, Navagaon
504	Shri Vinod Chawda, Khursidih, Durg	528	Smt Lata Buddan, Ghumka, Rajnandgaon
505	Shri Vinod Kumar Jetwa, Karanja Bhilai	529	Smt Leelabai, Mundra, Abhanpur
506	Shri Virendra, Karampur	530	Smt Madhu Dixit
507	Shri Virnath, Kuniakala	531	Smt Mamta Tonk, Mundgaon, Rajnandgaon
508	Shri Vishal Sharma	532	Smt Mansi, Manpur, Gandai
509	Shri Vishambhar Rajwade, Maheshpur	533	Smt Mukta Rahore, Achoti, Ahiwara
510	Shri Vishwanath Sonsare, Janjgir (Champa).	534	Smt NKamla and others

535	Smt Parniya bai, Parsada, Abhanpur	547	Smt Sunita, Lidba
536	Smt Radhabai Rohra, Nardha	548	Smt Sushila, Hariharpur
537	Smt Rekha Agrawal, Jhulum, Abhanpur	549	Smt Urmila, Bhatapara
538	Smt Rita, Hariharpur	550	Smt Usha Chauhan, Kapasada
539	Smt Sangeeta Tandon, Anjora	551	Smt Vimla Das
540	Smt Savitri Vishal, Libda	552	Smt. Triveni Tonk, Kandraka, Kumhari, Durg
541	Smt Shant Ben, Malpuri, Bhimbhori	553	South East Central Railway, Bilaspur
542	Smt Sharda Ben, Kapasada, Kumhari	554	Surajmani, Hariharpur
543	Smt Shweta, Borai	555	Trade Union Council Of Bilaspur, Ramnagar, Bilaspur
544	Smt Sunita devi Jat, Lalpur	556	Urla Indusries Association, Urla, Raipur
545	Smt Sunita Parmar, Machanpara	557	Victoria, Hariharpur
546	Smt Sunita Verma, Rajnandgaon		

Annexure 2 : List of Persons Who Attended the Public Hearing

Public hearing at Jagdalpur on 04.02.2011

Sl. No.	Name	Sl. No.	Name
1.	Shri Kishore Parakh	2.	Shri Pukhraj Bhothra
3.	Shri Santosh Jain	4.	Shri Rishi Hemani
5.	Shri Vijay Heliwal	6.	Shri Vimal Bishra
7.	Shri B.K. Parusha	8.	Shri Hanuman Devedi
9.	Shri Madan Dubey	10.	Shri Anil Bafna
11.	Shri Jitendra Jain	12.	Smt Kamla
13.	Smt. Radha Dhruw	14.	Shri Rajesh Choudhry
15.	Shri Satpal Sharma	16.	Shri Prakash Agrawal
17.	Shri Narsingh Rao	18.	Shri K. Yashwardhan Rao
19.	Shri Malkit Singh	20.	Shri Ram Shankar Rao
21.	Shri Rakesh Singh	22.	Shri Yogesh Taak
23.	Shri Jaisingh Parihar	24.	Shri Fatosingh Parihar
25.	Shri Rajesh Naidu	26.	Shri Ashok Rao Naidu
27.	Smt. Shanti Savan	28.	Smt. Sushma Kashyap
29.	Shri Ghanshyam Sahu	30.	Shri K.K. Vasudevan
31.	Shri Rishi Kumar Yadav	32.	Shri Rajiv Agrawal
33.	Shri Rojaliya Ekka	34.	Smt. Varsha Soni
35.	Shri Ramavtar Agrawal	36.	Shri Prashant Singh
37.	Shri Abhishek Gary	38.	Shri Ramesh Saini
39.	Shri K.K. Agrawal	40.	Shri Shailesh Goyal
41.	Shri Sevaram Agrawal	42.	Shri Shashank Kumar Singh
43.	Shri Vinay Kumar Gupta	44.	Shri Kamlesh Thakur
45.	Shri Shambhu Parvin	46.	Shri Gorelal
47.	Shri Mohd. Naseem Khan	48.	Shri Gufaraan
49.	Shri Namo Narayan Singh	50.	Shri Shrinivas Mishr
51.	Shri Anilchand Shukla	52.	Shri Deepak Kumar Sharma

Public hearing at Ambikapur on 08.02.2011

Sl. No.	Name	Sl. No.	Name
1.	Shri Kantay Jaiswal	2.	Shri Kanthya Jayaswal
3.	Shri Kishore Mitra	4.	Shri B.S. Kataliya
5.	Shri Ajya Ingole	6.	Shri P.C. Tayal
7.	Shri A.K. Singhaniya	8.	Shri Jai Prakash Jaiswal
9.	Shri Gourishankar Sanvade	10.	Shri K.K. Verma
11.	Shri Rifat Ulla Khan	12.	Shri Anil Kumar Singh
13.	Shri Rajesh Prasad Yadav	14.	Shri Kisan Say
15.	Shri T.S. Singh DEO	16.	Mrs. Francisco Beck
17.	Mrs. Bhagwati Rajwade	18.	Ms. Seem Chauhan
19.	Ms. Madhu Singh	20.	Smt. Manju Dixit
21.	Smt. Sandhya Swami	22.	Smt. Sarita Pandey
23.	Shri Anupam Philip	24.	Shri Balkrishna Patan
25.	Shri Satyendra Tiwari	26.	Shri J.P. Agrawal
27.	Shri Ranbijay Singh Tomar	28.	Shri Vijay Kumar Singh
29.	Shri Rakesh Gupta	30.	Shri Bhanupratap Singh

31.	Shri Laxmi Gupta	32.	Shri Ashok Kumar Agrawal
33.	Shri Neeraj Kumar Pandey	34.	Shri T. V. Singh
35.	Shri Arvind Singh	36.	Shri Surendra Kumar Nadi
37.	Shri Ayodhya Kushwaha	38.	Shri Subhash Sonkar
39.	Shri Shoukat Ali	40.	Shri Gopal Yadav
41.	Shri Kurwat Bhanji	42.	Shri Ashfaque Kamar
43.	Shri Rashid Ahmed Ansari	44.	Shri Jimani Khan
45.	Shri Ajad Aslam Khan	46.	Shri Pramod Choudhary
47.	Shri Niranjan Kumar Rai	48.	Shri Rajesh Malim
49.	Shri Kartikay Jayaswal	50.	Shri Arvind Singh
51.	Shri P S Kumar	52.	Shri Lalchand Yadav
53.	Shri Amarjeet Bhagat	54.	Shri Arvind Mishr
55.	Shri Praveen Gupta	56.	Shri Sanjay Shukla
57.	Shri Kartaram Gupta	58.	Shri Ashok Goyal
59.	Shri Vedprakash Agrawal	60.	Shri Amarnath Singh
61.	Shri Nakul	62.	Shri Bhaiyalal
63.	Shri Bhuneshwar Raibod	64.	

Public hearing at Bilaspur on 11.02.2011

Sl. No.	Name	Sl. No.	Name
1.	Shri Sudeep Shrivastav	2.	Shri Harish Kedia
3.	Shri Basant Sharma	4.	Shri Sanju Agrawal`
5.	Shri Churavan Mangeshkar	6.	Shri Jaspal Singh Nandi
7.	Shri Mahesh Dubey	8.	Shri Ravindra Singh
9.	Shri Gopal Dubey	10.	Shri Shibli Meraj Khan
11.	Shri Govardhan Agrawal	12.	Shri Bhupendra Singh
13.	Shri Arun Kumar Chouhan	14.	Shri Shyamji Bhai Patel
15.	Shri Anand Mishra	16.	Shri Indra Agrawal Deshraj
17.	Shri Vijay Pandey	18.	Shri Baijnath Chandrakar
19.	Shri Nand Kashyap	20.	Shri Arjun Tiwari
21.	Shri Sunn Marda	22.	Shri Arjun Agrawal
23.	Shri Brijmohan Agrawal	24.	Shri K.C. Bhardwaj
25.	M/s Ajay Industries	26.	Shri Vinod Agrawal
27.	M/s Anand Furnitures	28.	Shri Gopal Mukherjee
29.	Shri Sanjay Sarvel	30.	Shri Bhugar Ram Suryvanshi
31.	Shri Brahmdev Singh Thakur	32.	Shri M N Chatterjee
33.	Shri B P Choubey	34.	Shri Rajendra Agrawal
35.	Shri Narayan Rana	36.	Shri S K Banarjee
37.	Shri Tapan Ghosh	38.	Shri Arab Shrivastav
39.	Shri Birendra Sharma	40.	Shri Malik Ram Dahariya
41.	Shri Kaushal Parihar	42.	Shri Rajkumar Anchal
43.	Shri Santosh Dubey	44.	Shri Pramod Jayaswal
45.	Shri Akkad Rane	46.	Shri R K Gupta
47.	Shri Rajeshwar Bhargav	48.	Shri Arthar Bhai Virani
49.	Shri Onchram Surya	50.	Shri Benigudna
51.	Shri Hiralal Vibhani	52.	Shri Sunil Sonthaliya
53.	Shi Chedilal Saray	54.	Shri Nanakram Kharum

55.	Shri Bholaram Milal	56.	Shri Pradeep Gupta
57.	Shri Surendra Kashyap	58.	Shri Devendra P.S. Yadav
59.	Shri Shakeel Hussain	60.	Shri R K Tiwari
61.	Shri Yogesh Parneni	62.	Shri APR Rao
63.	Shri D.K. Sharma	64.	Shri P K Chauhan
65.	Shri A P Singh	66.	Shri A K Sharma

Public hearing at Raipur on 17.02.2011

Sl. No.	Name	Sl. No.	Name
1.	Er. Shaym Kabra	2.	Shri Ravindra Jain
3.	Shri Yashwardhan Agrawal	4.	Shri Ashok Surana
5.	Shri Manish	6.	Shri Vivek Ranjan Gupta
7.	Shri Ankit Singh	8.	Shri Muhish Manajam
9.	Shri P K khare	10.	Shri Samurdra Sharma
11.	Shi Sanjay Kushwaha	12.	Shri LSS Rao
13.	Shri P A Pande	14.	Shri R N Rao
15.	Shri Atishay Jain	16.	Shri R K Verma
17.	Shri Deepak Jogkkar	18.	Shri Sandeep Shukla
19.	Shri Ravi Soni	20.	Shi P M Jog
21.	Shri G S Deshpande	22.	Shri V K Shrivastav
23.	Shri R K Banzal	24.	Shri D K Dave
25.	Smt Tripti Sinha	26.	Shri Vinay Pandey
27.	Shri Nitin Maurya	28.	Shri Joseph KV
29.	Shri A S Rajpal	30.	Shri R A Pathak
31.	Shri R K Seth	32.	Shri Santosh Singh
33.	Shri Ashwin Garg	34.	Shri Yogesh Sharma
35.	Shri Jaspal Singh	36.	Shri Suryaprakash Rath
37.	Shri Manoj Tapadia	38.	Shri Mahesh Chandani
39.	Shri A Bhatnagar	40.	Shri P V Sajeev
41.	Shri Ramesh Dew	42.	Shri Jasraj Jain
43.	Shri Manoj Agrawal	44.	Shri P M Khandelwal
45.	Shri Anil Kumar Singh	46.	Shri Sohan Lal Sonkar
47.	Shri Chalu Ram Sonker	48.	Shri Garib Ram Sahu
49.	Shri Bhupesh Baghker	50.	Shri Milap Singh
51.	Shri Omkar Chichode	52.	Shri Ramayan Sahu
53.	Shri Arjun Lal Sonkar	54.	Shri Puranlal
55.	Shri Tejsingh Sahu	56.	Shri Lalit Sonkar
57.	Shri Devendra Chandrakar	58.	Shri Ramnarayan Nishad
59.	Shri Yogiram Sahu	60.	Shri Gangaram Sahu
61.	Shri Chandramani Sahu	62.	Shri Roshan Kumar Sahu
63.	Shri Dileep Nishad	64.	Shri Bharat Kumar
65.	Shri Dhan Singh	66.	Shri Manish Kumar
67.	Shri Rakesh Kumar	68.	Shri Narayan Sharma
69.	Shri Mahendra Kumar	70.	Shri Ajay Rathore
71.	Shri Dwarika Prasad Bhagel	72.	Shri Pardeshi Ram
73.	Shri Dilip Kumar	74.	Shri Tulsi Ram
75.	Shri Sunder Lal Sahu	76.	Shri Shasank Sharma

77.	Shri Narendra Thakur	78.	Shri Sudhir Tiwari
79.	Shri Saurabh Rathi	80.	Shri Suresh Chauhan
81.	Shri Kishore Chawda	82.	Shri Girendra Agrawal
83.	Shri Sunil Chauhan	84.	Shri Jameel Agrawal
85.	Shri Jitendra Shukla	86.	Shri Vimal Chawda
87.	Shri Gidaram	88.	Shri Ashok Chandrakar
89.	Shri Rajesh Chawda	90.	Shri Majeet Singh Satya
91.	Shri Pankaj Solanki	92.	Shri Kuntal Solanki
93.	Shri Yogesh Gohil	94.	Shri Bharat Parmar
95.	Shri Rakesh Sahu	96.	Shri Naveen Kumar
97.	Shri Ghanshyam Parmar	98.	Shri Kamalchand Agrawal
99.	Shri Rajendra Kumar	100.	Shri Latir Dhani Tank
101.	Shri Prabhu Tank	102.	Shri Niranjan Kondeyar
103.	Shri J N Rana	104.	Shri Chandrakant Rathore
105.	Shri S K Chauhan	106.	Shri Mahesh Chandrakar
107.	Shri Durendra Sahu	108.	Shri Dinesh Kumar Jethwa
109.	Shri Vinod S Jethwa	110.	Shri Jirram Taunk
111.	Shri Vijay Chauhan	112.	Shri Dhanjay Agrawal
113.	Shri Ajay Khandiyar	114.	Shri Dhiraj Chauhan
115.	Shri Mahendra Van	116.	Shri Saurabh Rathi
117.	Shri Shankar Lal Agrawal	118.	Shri Jageshwar Prasad
119.	Shri R S Saxena	120.	Shri Kishore Solanki
121.	Shri Bhupendra Duvo	122.	Shri Girish Rathod
123.	Shri Anuj Agrawal	124.	Shri Harish Rohra
125.	Smt. Bhojkumar Yadu	126.	Shri Tarun Rojdiyar
127.	Shri Bhuneshwar Rao Dorse	128.	Shri Bhavesh Bhai Taank
129.	Shri Jai Prakash Chawda	130.	Shri Prabhat Chauhan
131.	Shri P Rajendra	132.	Shri Praveen Chawda
133.	Shri Anil Chawda	134.	Shri Dup Chauhan
135.	Shri Prakash Chawda	136.	Shri Girish J Taunk
137.	Shri Tribhuvan Jedwa	138.	Shri Dinesh Kumar Parmar
139.	Shri Shantilal Luniya	140.	Shri Anil Soni
141.	Shri Prafull Chauhan	142.	Shri Subhash M Rathore
143.	Shri Naveen M Rathore	144.	Shri Deepesh Taunk
145.	Shri Uderam Sonkar	146.	Shri Ajay Karmakar
147.	Shri Surendra Yadav	148.	Smt Kiranmayi Nayak
149.	Shri Mahesh Khodiyar	150.	Shri Khilesh Chandrakar
151.	Shri Kishore Chandrakar	152.	Shri Parul Singh
153.	Shri M Taunk	154.	Shri Hariom Singh
155.	Shri Jitendra Bhandher	156.	Shri Sacchidand Singh
157.	Shri Udaypratap Singh	158.	Shri Surya Prakash Singh
159.	Shri Vinod Singh	160.	Shri Rajendra Chauhan
161.	Shri Ashwani Kumar	162.	Shri Naresh Kumar
163.	Shri Nathuram Nishad	164.	Shri Yamuna Prasad
165.	Shri Rajesh Kumar Nishad	166.	Shri Tilakram Nishad
167.	Shri Doman Sahu	168.	Shri Rajendra Sahu
169.	Shri Harshit Padhiyar	170.	Shri Anand Chauhan
171.	Shri Mitesh Taunk	172.	Shri Mukesh Solanki

173.	Shri Domar Yadu	174.	Shri Dau Lal Nishad
175.	Shri Tamradwhaj Nishad	176.	Shri Hori Lal Sonkar
177.	Shri Sadhu Ram Sonkar	178.	Shri Sumer Singh
179.	Shri Kamla Prasad	180.	Shri Bhagwati Patil
181.	Shri Ashok Kushwaha	182.	Shri Ramnayan Singh
183.	Shri Ramsharan Singh	184.	Shri Ramvriksh Singh
185.	Shri Dorelal Sahu	186.	Shri Kamlesh Padher
187.	Shri Depesh Taunk	188.	Shri SanjayVadher
189.	Shri Sanjay Singh Thakur	190.	Shri Kapervare Sharma
191.	Shri Toni Sardar	192.	Shri Hemraj Taunk
193.	Shri J N Taunk	194.	Smt Bhojkumar Yadu
195.	Smt. Jyoti Thakur	196.	Shri Kapil
197.	Shri Devendra Taunk	198.	Shri Amit Chauhan
199.	Shri Swami Kushwaha	200.	Shri Pankaj Taunk
201.	Shri Kantilal Thakur	202.	Shri Yogesh Vadher
203.	Shri Bhupendra Chauhan	204.	Shri Dilip Rathod
205.	Shri Mahesh Bhai Parmar	206.	Shri Devendra Parmar
207.	Shri Kallaben Bhansali	208.	Shri Nilesh Vadhe
209.	Shri Bhushan Rathod	210.	Shri Pramod K Chand
211.	Shri Prashant Marod	212.	Shri Vinod Chawda
213.	Shri Dileep Taunk	214.	Shri Dinesh Kumar Sahu
215.	Shri Manish Chaubey	216.	Shri Bhojvedu
217.	Shri Ambuj Singh	218.	Shri Vikash Singh
219.	Shri Santosh Kumar	220.	Shri G P Chandrakar
221.	Shri Mrityunjay Dubey	222.	Shri Pramod Dubey
223.	Shri Amir Ahmed	224.	Shri Satnam Singh
225.	Shri Jayant Bhai Taunk	226.	Shri Sukhram Verma
227.	Shri Hemant Gohil	228.	Shri Nand Kumar Sahu
229.	Shri Trilochan Sonam	230.	Shri Kantikiran
231.	Shri Mansingh Sahu	232.	Shri Vishesh Kashyap
233.	Shri Kamal Chawda	234.	Shri Sitaram Sahu
235.	Shri Ashok Chandrakar	236.	Shri Dilip Chauhan
237.	Shri Shanker Chauhan	238.	Shri Ravi Kumar Ubbrani
239.	Shri Pradeep Varu	240.	Shri Ashulu Saru
241.	Shri Ashok Chandrakar	242.	Shri Mohan Chandrakar
243.	Shri Bignan	244.	Shri Virendra Pandey
245.	Shri Rakesh Dhotere		

Public hearing at Raipur on 18.02.2011

Sl. No.	Name	Sl. No.	Name
1.	Shri Ashok Surana	2.	Shri Vivek Ranjan Gupta
3.	Shri R K Verma	4.	Shri Manoj Dhuppad
5.	Shri Ramesh Agrawal	6.	Shri G D Jophaliya
7.	Shri Munna	8.	Shri Prakash Ranjan Pradhan
9.	Shri G S Ahluwalia	10.	Shri S K Vyas
11.	Shri Ankit Kalash	12.	Shri Gurdeep Singh
13.	Shri Suresh Goyal	14.	Shri Amanpreet Singh
15.	Shri S Agarwal	16.	Shri Abhishek Bachhawat
17.	Shri Rajesh Agrawal	18.	Shri Gautam Agrawal
19.	Shri Yashwardhan Agrawal	20.	Shri Bharat Bhushan
21.	Shri Sanjyay Kushwaha	22.	Shri LSS Rao
23.	Shri Ashish Shukla	24.	Shri R S Saxena
25.	Shri Manish	26.	Shri Viay Saboo
27.	Shri Rahul Agrawal	28.	Shri Rakesh Jalan
29.	Shri Mahesh Rajani	30.	Shri Ajit Kumar Das
31.	Shri Joseph KV	32.	Shri M K Form
33.	Shri N K Sharma	34.	Shri Rajeev Kumar Pathak
35.	Shri Dhanmesh Patel	36.	Shri Ram Goenka
37.	Shri Santosh Prasad	38.	Shri S K Sahu
39.	Shri Vinay Gupta	40.	Shri Ashwin Singh
41.	Shri Ravindra Jain	42.	Shri R S Goenka
43.	Shri Ankit Singh	44.	Shri Arvind Singh
45.	Shri Abhay Kumar Singh	46.	Shri A K Chaudhary
47.	Shri Mukesh Pandey	48.	M/s Rajat Power Steel Ltd.
49.	Shri Supers Golkhe	50.	Shri Purshottam Agrawal
51.	Shri Sandeep Agrawal	52.	M/s Ganpati India Ltd.
53.	Shri Deo Kumar Joshi	54.	Shri Piyush Jalam
55.	Shri R A Pathak	56.	Shri M K Agrawal
57.	Shri P K Khandelwal	58.	Shri J Juneja
59.	Shri Mahesh Goyal	60.	Shri P K Khanna
61.	Shri A Kumar	62.	Shri D K Dave
63.	Shri H Gautam	64.	Shri Shashank Singh
65.	Shri H R Narware	66.	Shri P V Sajeev
67.	Shri Atishay Jain	68.	Shri A Bhatnagar
69.	Shri R K Pandey	70.	Shri V K Shrivastav
71.	Shri G L Patel	72.	Shri Nidur Maurya
73.	Shri Shadab Tarunnam	74.	Shri Subhash Singh
75.	Shri Dadu Thakur	76.	Shri Vivek Mishra
77.	Shri Prasad Pariyo	78.	Shri Jeetendra Somani
79.	Shri Rakesh Sharma	80.	Shri Sandip Kumar
81.	Shri R Kundeke	82.	Shri Uttam Dewangan
83.	Shri D R Mahapatra	84.	Er. Shaym Kabra
85.	Shri Sukhdev Singh	86.	Shri K K Sahu
87.	S K Sharma	88.	Shri Manish Gupta
89.	Shri Anand Chaudhary	90.	Shri Kapil Gohil

91.	Shri Satish Jain	92.	Shri Ritesh Tripathi
93.	Shri Nitu Ghanshyam Tiwari	94.	Shri Sami Akhtar
95.	Shri APR Rao	96.	Smt. Kiranmayi Nayak
97.	Shri Rakesh Ghotere	98.	Shri D K Saha
99.	Shri P K Agrawal	100.	Shri K Harinarayana
101.	Shri H Roy	102.	Shri V S Gangadhara Rao
103.	Shri LSS Rao	104.	Shri Sanjay Kushwaha
105.	Shri J S Netam	106.	Shri Chandrakant Chaudhary
107.	Shri C P Sharma	108.	Shri Sunil Agrawal
109.	Shri Mahesh Kakkad	110.	Shri R P Drohi

Annexure 3 Computation of Station-wise weighted average rate of interest as submitted by CSPGCL

A. HTPS Korba West

S.No	Particulars	2008-09 Jan – March	2009-10	2010-11	2011-12	2012-13 (All Figures in Cr)
	PFC- 22104004 - R&M RAH					
1	Gross loan – Opening			11.58	19.91	28.24
2	Cumulative repayments of Loans upto previous year				1.18	3.53
3	Net loan – Opening			11.58	18.73	24.71
4	Add: Drawal(s) during the Year		11.58	8.33	8.33	
5	Total Loan Drawn Till the End of the Year		11.58	19.91	28.24	28.24
6	Less: Repayment (s) of Loans during the year			1.18	2.35	2.35
7	Cumulative repayments of Loans upto end of Year			1.18	3.53	5.88
8	Net loan – Closing		11.58	18.73	24.71	22.36
9	Average Net Loan		5.79	15.16	21.72	23.53
10	Rate of Interest on Loan on annual basis		11.75%	11.75%	11.75%	11.75%
11	Projected Interest on loan To be paid during the Year		0.68	1.78	2.55	2.77
	PFC- 22104005 - R&M TAS BAS					
1	Gross loan – Opening			3.41	6.75	10.08
2	Cumulative repayments of Loans upto previous year				0.63	1.47
3	Net loan – Opening			3.41	6.12	8.61
4	Add: Drawal(s) during the Year		3.41	3.34	3.34	
5	Total Loan Drawn Till the End of the Year		3.41	6.75	10.08	10.08
6	Less: Repayment (s) of Loans during the year			0.63	0.84	0.84
7	Cumulative repayments of Loans upto end of Year			0.63	1.47	2.31
8	Net loan – Closing		3.41	6.12	8.61	7.77
9	Average Net Loan		1.71	4.76	7.36	8.19
10	Rate of Interest on Loan on annual basis		11.75%	11.75%	11.75%	11.75%
11	Projected Interest on loan To be paid during the Year		0.20	0.56	0.87	0.96
	PFC- 22104007 – DFAH					
1	Gross loan – Opening			33.38	36.00	36.00
2	Cumulative repayments of Loans upto previous year				1.50	4.50
3	Net loan – Opening			33.38	34.50	31.50
4	Add: Drawal(s) during the Year		33.38	2.62		
5	Total Loan Drawn Till the End of the Year		33.38	36.00	36.00	36.00

6	Less: Repayment (s) of Loans during the year			1.50	3.00	3.00
7	Cumulative repayments of Loans upto end of Year			1.50	4.50	7.50
8	Net loan – Closing		33.38	34.50	31.50	28.50
9	Average Net Loan		16.69	33.94	33.00	30.00
10	Rate of Interest on Loan on annual basis	11.75%	11.75%	11.75%	11.75%	11.75%
11	Projected Interest on loan To be paid during the Year		1.96	3.99	3.88	3.53
	PFC-22104001 - R&M APH 3&4					
1	Gross loan – Opening			31.55	43.77	43.77
2	Cumulative repayments of Loans upto previous year				1.82	5.47
3	Net loan – Opening			31.55	41.95	38.30
4	Add: Drawal(s) during the Year		31.55	12.22		
5	Total Loan Drawn Till the End of the Year		31.55	43.77	43.77	43.77
6	Less: Repayment (s) of Loans during the year			1.82	3.65	3.65
7	Cumulative repayments of Loans upto end of Year			1.82	5.47	9.12
8	Net loan – Closing		31.55	41.95	38.30	34.65
9	Average Net Loan		15.78	36.75	40.12	36.48
10	Rate of Interest on Loan on annual basis		11.75%	11.75%	11.75%	11.75%
11	Projected Interest on loan To be paid during the Year		1.85	4.32	4.71	4.29
	Corporate Loans - Allocated					
	Fund from State Govt. raised through Market Bonds					
1	Gross loan – Opening	177.97	177.97	177.97	177.97	177.97
2	Cumulative repayments of Loans upto previous year		5.93	29.66	53.39	77.12
3	Net loan – Opening	177.97	172.04	148.31	124.58	100.85
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	177.97	177.97	177.97	177.97	177.97
6	Less: Repayment (s) of Loans during the year	5.93	23.73	23.73	23.73	23.73
7	Cumulative repayments of Loans upto end of Year	5.93	29.66	53.39	77.12	100.85
8	Net loan – Closing	172.04	148.31	124.58	100.85	77.12
9	Average Net Loan	175.01	160.17	136.45	112.72	88.99
10	Rate of Interest on Loan on annual basis	8.00%	8.00%	8.00%	8.00%	8.00%
11	Projected Interest on loan To be paid during the Year	14.00	12.81	10.92	9.02	7.12
	Bonds					
1	Gross loan – Opening	67.44	67.44	67.44	67.44	67.44
2	Cumulative repayments of Loans upto previous year				67.44	67.44

3	Net loan – Opening	67.44	67.44	67.44		
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	67.44	67.44	67.44	67.44	67.44
6	Less: Repayment (s) of Loans during the year			67.44		
7	Cumulative repayments of Loans upto end of Year			67.44	67.44	67.44
8	Net loan – Closing	67.44	67.44			
9	Average Net Loan	67.44	67.44	33.72		
10	Rate of Interest on Loan on annual basis	13.30%	13.30%	13.30%	13.30%	13.30%
11	Projected Interest on loan To be paid during the Year	8.97	8.97	4.48		
	Debentures					
1	Gross loan – Opening	26.97	26.97	26.97	26.97	26.97
2	Cumulative repayments of Loans upto previous year				26.97	26.97
3	Net loan – Opening	26.97	26.97	26.97		
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	26.97	26.97	26.97	26.97	26.97
6	Less: Repayment (s) of Loans during the year			26.97		
7	Cumulative repayments of Loans upto end of Year			26.97	26.97	26.97
8	Net loan – Closing	26.97	26.97			
9	Average Net Loan	26.97	26.97	13.49		
10	Rate of Interest on Loan on annual basis	13.30%	13.30%	13.30%	13.30%	13.30%
11	Projected Interest on loan To be paid during the Year	3.59	3.59	1.79		
	PFC Loan (MPEB)					
1	Gross loan – Opening	4.78	4.78	4.78	4.78	4.78
2	Cumulative repayments of Loans upto previous year			3.27	4.78	4.78
3	Net loan – Opening	4.78	4.78	1.51	0.00	0.00
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	4.78	4.78	4.78	4.78	4.78
6	Less: Repayment (s) of Loans during the year		3.27	1.51		
7	Cumulative repayments of Loans upto end of Year		3.27	4.78	4.78	4.78
8	Net loan – Closing	4.78	1.51	0.00	0.00	0.00
9	Average Net Loan	4.78	3.15	0.76	0.00	0.00
10	Rate of Interest on Loan on annual basis	9.00%	9.00%	9.00%	9.00%	9.00%
11	Projected Interest on loan To be paid during the Year	0.43	0.28	0.07	0.00	0.00
	State Govt Loan					

1	Gross loan – Opening	17.72	17.72	17.72	17.72	17.72
2	Cumulative repayments of Loans upto previous year				8.86	17.72
3	Net loan – Opening	17.72	17.72	17.72	8.86	
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	17.72	17.72	17.72	17.72	17.72
6	Less: Repayment (s) of Loans during the year			8.86	8.86	
7	Cumulative repayments of Loans upto end of Year			8.86	17.72	17.72
8	Net loan – Closing	17.72	17.72	8.86		
9	Average Net Loan	17.72	17.72	13.29	4.43	
10	Rate of Interest on Loan on annual basis	8.00%	8.00%	8.00%	8.00%	8.00%
11	Projected Interest on loan To be paid during the Year	1.42	1.42	1.06	0.35	
	Total Loan					
1	Gross loan – Opening	321.85	321.85	401.77	428.28	439.94
2	Cumulative repayments of Loans upto previous year	-	5.93	32.94	193.54	235.97
3	Net loan – Opening	321.85	315.92	368.84	234.74	203.97
4	Add: Drawal(s) during the Year	-	79.92	26.51	11.67	-
5	Total Loan Drawn Till the End of the Year	321.85	401.77	428.28	439.94	439.94
6	Less: Repayment (s) of Loans during the year	5.93	27.00	160.61	42.43	33.57
7	Cumulative repayments of Loans upto end of Year	5.93	32.94	193.54	235.97	269.54
8	Net loan – Closing	315.92	368.84	234.74	203.97	170.40
9	Average Net Loan	318.89	342.38	301.79	219.35	187.19
10	Projected Interest on loan To be paid during the Year	31.99	35.35	30.76	21.38	18.66
11	**Weighted average Rate of Interest on Loans**	**10.03%**	**10.33%**	**10.19%**	**9.75%**	**9.97%**

B. KTPS KORBA EAST

S.N	Particulars	2008-09 Jan March	2009-10	2010-11	2011-12	2012-13
			(All Figures in Rs Cr)			
	Loan-Project Specific Loans					
	PFC- 22104006 – DFAH					
1	Gross loan – Opening			16.69	16.69	16.69
2	Cumulative repayments of Loans upto previous year				0.70	2.09
3	Net loan – Opening			16.69	15.99	14.60
4	Add: Drawal(s) during the Year		16.69			
5	Total Loan Drawn Till the End of the Year		16.69	16.69	16.69	16.69
6	Less: Repayment (s) of Loans during the year			0.70	1.39	1.39
7	Cumulative repayments of Loans upto end of Year			0.70	2.09	3.48
8	Net loan – Closing		16.69	15.99	14.60	13.21

S.N	Particulars	2008-09 Jan March	2009-10	2010-11	2011-12	2012-13
9	Average Net Loan		8.35	16.34	15.30	13.91
10	Rate of Interest on Loan on annual basis	11.75%	11.75%	11.75%	11.75%	11.75%
11	Projected Interest on loan To be paid during the Year		0.98	1.92	1.80	1.63
	Corporate Loans - Allocated					
	Fund from State Govt. raised through Market Bonds					
1	Gross loan – Opening	93.22	93.22	93.22	93.22	93.22
2	Cumulative repayments of Loans upto previous year		3.11	15.54	27.97	40.40
3	Net loan – Opening	93.22	90.12	77.69	65.26	52.83
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	93.22	93.22	93.22	93.22	93.22
6	Less: Repayment (s) of Loans during the year	3.11	12.43	12.43	12.43	12.43
7	Cumulative repayments of Loans upto end of Year	3.11	15.54	27.97	40.40	52.83
8	Net loan – Closing	90.12	77.69	65.26	52.83	40.40
9	Average Net Loan	91.67	83.90	71.47	59.04	46.61
10	Rate of Interest on Loan on annual basis	8.00%	8.00%	8.00%	8.00%	8.00%
11	Projected Interest on loan To be paid during the Year	7.33	6.71	5.72	4.72	3.73
	Bonds					
1	Gross loan – Opening	35.33	35.33	35.33	35.33	35.33
2	Cumulative repayments of Loans upto previous year				35.33	35.33
3	Net loan – Opening	35.33	35.33	35.33		
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	35.33	35.33	35.33	35.33	35.33
6	Less: Repayment (s) of Loans during the year			35.33		
7	Cumulative repayments of Loans upto end of Year			35.33	35.33	35.33
8	Net loan – Closing	35.33	35.33			
9	Average Net Loan	35.33	35.33	17.66		
10	Rate of Interest on Loan on annual basis	13.30%	13.30%	13.30%	13.30%	13.30%
11	Projected Interest on loan To be paid during the Year	4.70	4.70	2.35		
	Debentures					
1	Gross loan – Opening	14.13	14.13	14.13	14.13	14.13
2	Cumulative repayments of Loans upto previous year				14.13	14.13
3	Net loan – Opening	14.13	14.13	14.13		
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	14.13	14.13	14.13	14.13	14.13
6	Less: Repayment (s) of Loans during the year			14.13		
7	Cumulative repayments of Loans upto end of Year			14.13	14.13	14.13
8	Net loan – Closing	14.13	14.13			
9	Average Net Loan	14.13	14.13	7.06		

S.N	Particulars	2008-09 Jan March	2009-10	2010-11	2011-12	2012-13
10	Rate of Interest on Loan on annual basis	13.30%	13.30%	13.30%	13.30%	13.30%
11	Projected Interest on loan To be paid during the Year	1.88	1.88	0.94		
	PFC Loan (MPEB)					
1	Gross loan – Opening	2.50	2.50	2.50	2.50	2.50
2	Cumulative repayments of Loans upto previous year			1.71	2.50	2.50
3	Net loan – Opening	2.50	2.50	0.79		
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	2.50	2.50	2.50	2.50	2.50
6	Less: Repayment (s) of Loans during the year		1.71	0.79		
7	Cumulative repayments of Loans upto end of Year		1.71	2.50	2.50	2.50
8	Net loan – Closing	2.50	0.79			
9	Average Net Loan	2.50	1.65	0.40		
10	Rate of Interest on Loan on annual basis	9.00%	9.00%	9.00%	9.00%	9.00%
11	Projected Interest on loan To be paid during the Year	0.23	0.15	0.04		
	State Govt Loan					
1	Gross loan – Opening	9.28	9.28	9.28	9.28	9.28
2	Cumulative repayments of Loans upto previous year				4.64	9.28
3	Net loan – Opening	9.28	9.28	9.28	4.64	
4	Add: Drawal(s) during the Year					
5	Total Loan Drawn Till the End of the Year	9.28	9.28	9.28	9.28	9.28
6	Less: Repayment (s) of Loans during the year			4.64	4.64	
7	Cumulative repayments of Loans upto end of Year			4.64	9.28	9.28
8	Net loan – Closing	9.28	9.28	4.64		
9	Average Net Loan	9.28	9.28	6.96	2.32	
10	Rate of Interest on Loan on annual basis	8.00%	8.00%	8.00%	8.00%	8.00%
11	Projected Interest on loan To be paid during the Year	0.74	0.74	0.56	0.19	
	Total Loan					
1	Gross loan – Opening	154.46	154.46	171.15	171.15	171.15
2	Cumulative repayments of Loans upto previous year	-	3.11	17.25	85.26	103.72
3	Net loan – Opening	154.46	151.35	153.90	85.89	67.43
4	Add: Drawal(s) during the Year	-	16.69	-	-	-
5	Total Loan Drawn Till the End of the Year	154.46	171.15	171.15	171.15	171.15
6	Less: Repayment (s) of Loans during the year	3.11	14.14	68.01	18.46	13.82
7	Cumulative repayments of Loans upto end of Year	3.11	17.25	85.26	103.72	117.54
8	Net loan – Closing	151.35	153.90	85.89	67.43	53.61
9	Average Net Loan	152.91	152.63	119.90	76.66	60.52
10	Projected Interest on loan To be paid during the Year	14.88	15.16	11.52	6.71	5.36
11	**Weighted average Rate of Interest on Loans**	**9.73%**	**9.93%**	**9.61%**	**8.75%**	**8.86%**

C. DSPM KORBA EAST (EXTN.)

SN	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
	Loan-1					
1	Gross loan – Opening	1,371.92	1,457.13	1,559.27	1,636.00	1,636.00
2	Cumulative repayments of Loans upto previous year		139.02	293.33	451.43	614.82
3	Net loan – Opening	1,371.92	1,318.11	1,265.94	1,184.57	1,021.18
4	Add: Drawal(s) during the Year	85.21	102.14	76.73		
5	Total Loan Drawn Till the End of the Year	1,457.13	1,559.27	1,636.00	1,636.00	1,636.00
6	Less: Repayment (s) of Loans during the year	139.02	154.31	158.10	163.39	163.39
7	Cumulative repayments of Loans upto end of Year	139.02	293.33	451.43	614.82	778.21
8	Net loan – Closing	1,318.11	1,265.94	1,184.57	1,021.18	857.79
9	Average Net Loan	1,345.02	1,292.02	1,225.25	1,102.87	939.49
10	Rate of Interest on Loan on annual basis	10.03%	11.47%	11.50%	11.50%	11.50%
11	Projected Interest on loan To be paid during the Year	134.93	148.21	140.90	126.83	108.04
	Total Loan					
1	Gross loan – Opening	1,371.92	1,457.13	1,559.27	1,636.00	1,636.00
2	Cumulative repayments of Loans upto previous year	-	139.02	293.33	451.43	614.82
3	Net loan – Opening	1,371.92	1,318.11	1,265.94	1,184.57	1,021.18
4	Add: Drawal(s) during the Year	85.21	102.14	76.73	-	-
5	Total Loan Drawn Till the End of the Year	1,457.13	1,559.27	1,636.00	1,636.00	1,636.00
6	Less: Repayment (s) of Loans during the year	139.02	154.31	158.10	163.39	163.39
7	Cumulative repayments of Loans upto end of Year	139.02	293.33	451.43	614.82	778.21
8	Net loan – Closing	1,318.11	1,265.94	1,184.57	1,021.18	857.79
9	Average Net Loan	1,345.02	1,292.02	1,225.25	1,102.87	939.49
10	Projected Interest on Loan To be paid during the Year	134.93	148.21	140.90	126.83	108.04
11	**Weighted average Rate of Interest on Loans**	**10.03%**	**11.47%**	**11.50%**	**11.50%**	**11.50%**

D. HASDEO BANGO

S.N	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
	Corporate Loans Allocated					
	Fund from State Govt. raised through Market Bonds					
1	Gross loan – Opening	25.42	25.42	25.42	25.42	25.42
2	Cumulative repayments of Loans upto previous year	0.00	0.85	4.24	7.63	11.02
3	Net loan – Opening	25.42	24.58	21.19	17.80	14.41
4	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
5	Total Loan Drawn Till the End of the Year	25.42	25.42	25.42	25.42	25.42
6	Less: Repayment (s) of Loans during the year	0.85	3.39	3.39	3.39	3.39
7	Cumulative repayments of Loans upto end of Year	0.85	4.24	7.63	11.02	14.41
8	Net loan – Closing	24.58	21.19	17.80	14.41	11.02
9	Average Net Loan	25.00	22.88	19.49	16.10	12.71
10	Rate of Interest on Loan on annual basis	8.00%	8.00%	8.00%	8.00%	8.00%
11	Projected Interest on loan To be paid during the Year	2.00	1.83	1.56	1.29	1.02
	Bonds					
1	Gross loan - Opening	9.63	9.63	9.63	9.63	9.63

S.N	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
2	Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	9.63	9.63
3	Net loan - Opening	9.63	9.63	9.63	0.00	0.00
4	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
5	Total Loan Drawn Till the End of the Year	9.63	9.63	9.63	9.63	9.63
6	Less: Repayment (s) of Loans during the year	0.00	0.00	9.63	0.00	0.00
7	Cumulative repayments of Loans upto end of Year	0.00	0.00	9.63	9.63	9.63
8	Net loan - Closing	9.63	9.63	0.00	0.00	0.00
9	Average Net Loan	9.63	9.63	4.82	0.00	0.00
10	Rate of Interest on Loan on annual basis	13.30%	13.30%	13.30%	13.30%	13.30%
11	Projected Interest on loan To be paid during the Year	1.28	1.28	0.64	0.00	0.00
	Debentures					
1	Gross loan - Opening	3.85	3.85	3.85	3.85	3.85
2	Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	3.85	3.85
3	Net loan - Opening	3.85	3.85	3.85	0.00	0.00
4	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
5	Total Loan Drawn Till the End of the Year	3.85	3.85	3.85	3.85	3.85
6	Less: Repayment (s) of Loans during the year	0.00	0.00	3.85	0.00	0.00
7	Cumulative repayments of Loans upto end of Year	0.00	0.00	3.85	3.85	3.85
8	Net loan - Closing	3.85	3.85	0.00	0.00	0.00
9	Average Net Loan	3.85	3.85	1.93	0.00	0.00
10	Rate of Interest on Loan on annual basis	13.30%	13.30%	13.30%	13.30%	13.30%
11	Projected Interest on loan To be paid during the Year	0.51	0.51	0.26	0.00	0.00
	PFC Loan (MPEB)					
1	Gross loan - Opening	0.68	0.68	0.68	0.68	0.68
2	Cumulative repayments of Loans upto previous year	0.00	0.00	0.47	0.68	0.68
3	Net loan - Opening	0.68	0.68	0.22	0.00	0.00
4	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
5	Total Loan Drawn Till the End of the Year	0.68	0.68	0.68	0.68	0.68
6	Less: Repayment (s) of Loans during the year	0.00	0.47	0.22	0.00	0.00
7	Cumulative repayments of Loans upto end of Year	0.00	0.47	0.68	0.68	0.68
8	Net loan - Closing	0.68	0.22	0.00	0.00	0.00
9	Average Net Loan	0.68	0.45	0.11	0.00	0.00
10	Rate of Interest on Loan on annual basis	8.50%	8.50%	8.50%	8.50%	8.50%
11	Projected Interest on loan To be paid during the Year	0.06	0.04	0.01	0.00	0.00
	State Govt Loan					
1	Gross loan - Opening	2.53	2.53	2.53	2.53	2.53
2	Cumulative repayments of Loans upto previous year	0.00	0.00	0.00	1.27	2.53
3	Net loan - Opening	2.53	2.53	2.53	1.27	0.00
4	Add: Drawal(s) during the Year	0.00	0.00	0.00	0.00	0.00
5	Total Loan Drawn Till the End of the Year	2.53	2.53	2.53	2.53	2.53
6	Less: Repayment (s) of Loans during the year	0.00	0.00	1.27	1.27	0.00
7	Cumulative repayments of Loans upto end of Year	0.00	0.00	1.27	2.53	2.53

S.N	Particulars	2008-09	2009-10	2010-11	2011-12	2012-13
8	Net loan - Closing	2.53	2.53	1.27	0.00	0.00
9	Average Net Loan	2.53	2.53	1.90	0.63	0.00
10	Rate of Interest on Loan on annual basis	8.50%	8.50%	8.50%	8.50%	8.50%
11	Projected Interest on loan To be paid during the Year	0.22	0.22	0.16	0.05	0.00
	Total Loan					
1	Gross loan - Opening	42.13	42.13	42.13	42.13	42.13
2	Cumulative repayments of Loans upto previous year	-	0.85	4.71	23.06	27.72
3	Net loan - Opening	42.13	41.28	37.42	19.06	14.41
4	Add: Drawal(s) during the Year	-	-	-	-	-
5	Total Loan Drawn Till the End of the Year	42.13	42.13	42.13	42.13	42.13
6	Less: Repayment (s) of Loans during the year	0.85	3.86	18.36	4.66	3.39
7	Cumulative repayments of Loans upto end of Year	0.85	4.71	23.06	27.72	31.11
8	Net loan - Closing	41.28	37.42	19.06	14.41	11.02
9	Average Net Loan	41.70	39.35	28.24	16.74	12.71
10	Projected Interest on loan To be paid during the Year	4.07	3.88	2.63	1.34	1.02
11	**Weighted average Rate of Interest on Loans**	**9.75%**	**9.85%**	**9.30%**	**8.02%**	**8.00%**

Annexure 4 Computation of Station-wise weighted average rate of interest as approved by CSERC

A. HTPS Korba West

	Particulars	Interest Rate	Op. Bal	Additions	Repayments	Cl. Bal	Avg. Loan	Interest Amount
A	***NEW LOANS***							
1	**PFC- 22104004 - R&M RAH**							
	2008-09 (Jan-Mar 09)	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	2009-10	11.75%	0.00	11.58	0.00	11.58	5.79	0.68
	2010-11	11.75%	11.58	8.33	1.18	18.73	15.16	1.78
	2011-12	11.75%	18.73	8.33	2.35	24.71	21.72	2.55
	2012-13	11.75%	24.71	0.00	2.35	22.36	23.53	2.77
2	**PFC- 22104005 - R&M TAS BAS**							
	2008-09 (Jan-Mar 09)	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	2009-10	11.75%	0.00	3.41	0.00	3.41	1.71	0.20
	2010-11	11.75%	3.41	3.34	0.63	6.12	4.76	0.56
	2011-12	11.75%	6.12	3.34	0.84	8.61	7.36	0.87
	2012-13	11.75%	8.61	0.00	0.84	7.77	8.19	0.96
3	**PFC- 22104007 – DFAH**							
	2008-09 (Jan-Mar 09)	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	2009-10	11.75%	0.00	33.38	0.00	33.38	16.69	1.96
	2010-11	11.75%	33.38	2.62	1.50	34.50	33.94	3.99
	2011-12	11.75%	34.50	0.00	3.00	31.50	33.00	3.88
	2012-13	11.75%	31.50	0.00	3.00	28.50	30.00	3.53
4	**PFC-22104001 - R&M APH 3&4**							
	2008-09 (Jan-Mar 09)	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	2009-10	11.75%	0.00	31.55	0.00	31.55	15.78	1.85
	2010-11	11.75%	31.55	12.22	1.82	41.95	36.75	4.32
	2011-12	11.75%	41.95	0.00	3.65	38.30	40.12	4.71
	2012-13	11.75%	38.30	0.00	3.65	34.65	36.48	4.29

	Particulars	Interest Rate	Op. Bal	Additions	Repayments	Cl. Bal	Avg. Loan	Interest Amount
B.	***ALLOCATION OF EXISTING CORPORATE LOANS***							
5	**Fund from State Govt. through Market Bonds**							
	2008-09 (Jan-Mar 09)	8.00%	177.97	0.00	5.93	172.04	175.01	14.00
	2009-10	8.00%	172.04	0.00	23.73	148.31	160.17	12.81
	2010-11	8.00%	148.31	0.00	23.73	124.58	136.45	10.92
	2011-12	8.00%	124.58	0.00	23.73	100.85	112.72	9.02
	2012-13	8.00%	100.85	0.00	23.73	77.12	88.99	7.12
6	**Bonds**							
	2008-09 (Jan-Mar 09)	13.30%	67.44	0.00	0.00	67.44	67.44	8.97
	2009-10	13.30%	67.44	0.00	0.00	67.44	67.44	8.97
	2010-11	13.30%	67.44	0.00	67.44	0.00	33.72	4.48
	2011-12	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
7	**Debentures**							
	2008-09 (Jan-Mar 09)	13.30%	26.97	0.00	0.00	26.97	26.97	3.59
	2009-10	13.30%	26.97	0.00	0.00	26.97	26.97	3.59
	2010-11	13.30%	26.97	0.00	26.97	0.00	13.49	1.79
	2011-12	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
8	**PFC Loan (MPEB)**							
	2008-09 (Jan-Mar 09)	9.00%	4.78	0.00	0.00	4.78	4.78	0.43
	2009-10	9.00%	4.78	0.00	3.27	1.51	3.15	0.28
	2010-11	9.00%	1.51	0.00	1.51	0.00	0.76	0.07
	2011-12	9.00%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	9.00%	0.00	0.00	0.00	0.00	0.00	0.00
9	**State Govt Loan**							
	2008-09 (Jan-Mar 09)	8.00%	17.72	0.00	0.00	17.72	17.72	1.42
	2009-10	8.00%	17.72	0.00	0.00	17.72	17.72	1.42
	2010-11	8.00%	17.72	0.00	8.86	8.86	13.29	1.06

	Particulars	Interest Rate	Op. Bal	Additions	Repayments	Cl. Bal	Avg. Loan	Interest Amount
	2011-12	8.00%	8.86	0.00	8.86	0.00	4.43	0.35
	2012-13	8.00%	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL LOANS							
	2008-09 (Jan-Mar 09)	***9.73%***	294.88	0.00	5.93	288.95	291.92	28.40
	2009-10	***10.07%***	288.95	79.92	27.00	341.87	315.41	31.77
	2010-11	***10.05%***	341.87	26.51	133.64	234.73	288.30	28.97
	2011-12	***9.75%***	234.73	11.67	42.43	203.97	219.35	21.38
	2012-13	***9.97%***	203.97	0.00	33.57	170.40	187.18	18.66

B. KTPS KORBA EAST

	Particulars	Interest Rate	Op Bal	Additions	Repayments	Closing Balance	Avg. Loan	Interest Amount
A.	***NEW LOANS***							
1	**PFC- 22104006 – DFAH**							
	2008-09 (Jan-Mar 09)	0.00%	0.00	0.00	0.00	0.00	0.00	0.00
	2009-10	11.75%	0.00	16.69	0.00	16.69	8.35	0.98
	2010-11	11.75%	16.69	0.00	0.70	15.99	16.34	1.92
	2011-12	11.75%	15.99	0.00	1.39	14.60	15.30	1.80
	2012-13	11.75%	14.60	0.00	1.39	13.21	13.91	1.63
B.	***ALLOCATION OF EXISTING CORPORATE LOANS***							
2	**Fund from State Govt. through Market Bonds**							
	2008-09 (Jan-Mar 09)	8.00%	93.22	0.00	3.11	90.12	91.67	7.33
	2009-10	8.00%	90.12	0.00	12.43	77.69	83.90	6.71
	2010-11	8.00%	77.69	0.00	12.43	65.26	71.47	5.72
	2011-12	8.00%	65.26	0.00	12.43	52.83	59.04	4.72
	2012-13	8.00%	52.83	0.00	12.43	40.40	46.61	3.73
3	**Bonds**							
	2008-09 (Jan-Mar 09)	13.30%	35.33	0.00	0.00	35.33	35.33	4.70
	2009-10	13.30%	35.33	0.00	0.00	35.33	35.33	4.70
	2010-11	13.30%	35.33	0.00	35.33	0.00	17.66	2.35
	2011-12	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
4	**Debentures**							

	Particulars	Interest Rate	Op Bal	Additions	Repayments	Closing Balance	Avg. Loan	Interest Amount
	2008-09 (Jan-Mar 09)	13.30%	14.13	0.00	0.00	14.13	14.13	1.88
	2009-10	13.30%	14.13	0.00	0.00	14.13	14.13	1.88
	2010-11	13.30%	14.13	0.00	14.13	0.00	7.06	0.94
	2011-12	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
5	**PFC Loan (MPEB)**							
	2008-09 (Jan-Mar 09)	9.00%	2.50	0.00	0.00	2.50	2.50	0.23
	2009-10	9.00%	2.50	0.00	1.71	0.79	1.65	0.15
	2010-11	9.00%	0.79	0.00	0.79	0.00	0.40	0.04
	2011-12	9.00%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	9.00%	0.00	0.00	0.00	0.00	0.00	0.00
6	**State Govt Loan**							
	2008-09 (Jan-Mar 09)	8.00%	9.28	0.00	0.00	9.28	9.28	0.74
	2009-10	8.00%	9.28	0.00	0.00	9.28	9.28	0.74
	2010-11	8.00%	9.28	0.00	4.64	4.64	6.96	0.56
	2011-12	8.00%	4.64	0.00	4.64	0.00	2.32	0.19
	2012-13	8.00%	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL LOANS							
	2008-09 (Jan-Mar 09)	***9.73%***	154.46	0.00	3.11	151.35	152.91	14.88
	2009-10	***9.93%***	151.35	16.69	14.14	153.90	152.63	15.16
	2010-11	***9.61%***	153.90	0.00	68.01	85.89	119.90	11.52
	2011-12	***8.75%***	85.89	0.00	18.46	67.43	76.66	6.71
	2012-13	***8.86%***	67.43	0.00	13.82	53.61	60.52	5.36

C. DSPM Korba East (Extn)

Particulars	Interest Rate	Opening Balance	Additions during the year	Repayments during the year	Closing Balance	Avg. Loan	Interest Amount
Loan 1							
2008-09	**10.03%**	1371.92	85.21	139.02	1318.11	1345.02	134.93
2009-10	**11.47%**	1318.11	102.14	154.31	1265.94	1292.02	148.21
2010-11	**11.50%**	1265.94	76.73	158.10	1184.57	1225.25	140.90
2011-12	**11.50%**	1184.57	0.00	163.39	1021.18	1102.87	126.83
2012-13	**11.50%**	1021.18	0.00	163.39	857.79	939.49	108.04

D. HASDEO BANGO

	Particulars	Interest Rate	Opening Balance	Additions during the year	Repayments during the year	Closing Balance	Avg. Loan	Interest Amount
	ALLOCATION OF EXISTING CORPORATE LOANS							

	Particulars	Interest Rate	Opening Balance	Additions during the year	Repayments during the year	Closing Balance	Avg. Loan	Interest Amount
1	**Fund from State Govt. through Market Bonds**							
	2008-09 (Jan-Mar 09)	8.00%	25.42	0.00	0.85	24.58	25.00	2.00
	2009-10	8.00%	24.58	0.00	3.39	21.19	22.88	1.83
	2010-11	8.00%	21.19	0.00	3.39	17.80	19.49	1.56
	2011-12	8.00%	17.80	0.00	3.39	14.41	16.10	1.29
	2012-13	8.00%	14.41	0.00	3.39	11.02	12.71	1.02
2	**Bonds**							
	2008-09 (Jan-Mar 09)	13.30%	9.63	0.00	0.00	9.63	9.63	1.28
	2009-10	13.30%	9.63	0.00	0.00	9.63	9.63	1.28
	2010-11	13.30%	9.63	0.00	9.63	0.00	4.82	0.64
	2011-12	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
3	**Debentures**							
	2008-09 (Jan-Mar 09)	13.30%	3.85	0.00	0.00	3.85	3.85	0.51
	2009-10	13.30%	3.85	0.00	0.00	3.85	3.85	0.51
	2010-11	13.30%	3.85	0.00	3.85	0.00	1.93	0.26
	2011-12	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	13.30%	0.00	0.00	0.00	0.00	0.00	0.00
4	**PFC Loan (MPEB)**							
	2008-09 (Jan-Mar 09)	9.00%	0.68	0.00	0.00	0.68	0.68	0.06
	2009-10	9.00%	0.68	0.00	0.47	0.21	0.45	0.04
	2010-11	9.00%	0.21	0.00	0.21	0.00	0.11	0.01
	2011-12	9.00%	0.00	0.00	0.00	0.00	0.00	0.00
	2012-13	9.00%	0.00	0.00	0.00	0.00	0.00	0.00
5	**State Govt Loan**							
	2008-09 (Jan-Mar 09)	8.00%	2.53	0.00	0.00	2.53	2.53	0.20
	2009-10	8.00%	2.53	0.00	0.00	2.53	2.53	0.20
	2010-11	8.00%	2.53	0.00	1.27	1.27	1.90	0.15
	2011-12	8.00%	1.27	0.00	1.27	0.00	0.63	0.05
	2012-13	8.00%	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL LOANS							
	2008-09 (Jan-Mar 09)	***9.73%***	42.13	0.00	0.85	41.28	41.70	4.06
	2009-10	***9.83%***	41.28	0.00	3.86	37.42	39.35	3.87
	2010-11	***9.27%***	37.42	0.00	18.36	19.06	28.24	2.62
	2011-12	***8.00%***	19.06	0.00	4.66	14.41	16.74	1.34
	2012-13	***8.00%***	14.41	0.00	3.39	11.02	12.71	1.02

Annexure 5 Illustration for applicable transmission and wheeling charges for short-term open access

Table 239: Illustrations for applicable transmission and wheeling charges to be levied on open access customers for a month

Representative Consumer

Consumption Load (MW)	5
Energy Consumption (Units)	3600000
Transmission Loss of CSPTCL (STU)	4.67%
Distribution Loss of CSPDCL	6%
Energy injection including transmission loss (Units)	3776356
Energy at injection including distribution loss (Units)	3829787
Energy at injection including transmission and distribution loss (Units)	4030001

Particulars				**Case 1** Both injection and drawal points in the network of CSPTCL	**Case 2** The injection and drawl point is CSPTCL system and CSPDCL system respectively.	**Case 3** Both within the same CSPDCL system and there is no involvement of state transmission network	**Case 4** Both within the same CSPDCL but there is involvement of state transmission network	**Case 5** The injection and drawl point is at CSPDCL system (33 KV side of EHV S/s) and CSPTCL system respectively	**Case 6** The injection and drawl point is at CSPDCL system (33 KV side of 33/11 S/s) and CSPTCL system respectively
		Applicable Tariff (Charges)		**Rs**	**Rs**	**Rs**	**Rs**	**Rs**	**Rs**
Transmission Charges		paise per kWh	27	1019616	1088100	0	1019616	1019616	1019616
Wheeling Charges		paise per kWh	18	0	689362	689362	725400	679744	725400
Operating Charge (SLDC Charges)		Rs per day	2000	60000	60000	60000	60000	60000	60000
Cross Subsidy	132 KV	paise per kWh	85	3060000	0	0	0	3060000	3060000

Particulars				Case 1	Case 2	Case 3	Case 4	Case 5	Case 6
				Both injection and drawal points in the network of CSPTCL	**The injection and drawl point is CSPTCL system and CSPDCL system respectively.**	**Both within the same CSPDCL system and there is no involvement of state transmission network**	**Both within the same CSPDCL but there is involvement of state transmission network**	**The injection and drawl point is at CSPDCL system (33 KV side of EHV S/s) and CSPTCL system respectively**	**The injection and drawl point is at CSPDCL system (33 KV side of 33/11 S/s) and CSPTCL system respectively**
	33 KV	paise per kWh	31	0	1116000	1116000	1116000	0	0
Net Open Access Charge		Rs		4139616	2953462	1865362	2921016	4819360	4865016
Effective Open Access Charge (per Unit) w.r.t energy consumption		Rs/ kWh		**1.15**	**0.82**	**0.52**	**0.81**	**1.34**	**1.35**

NOTE: THE OPERATING CHRAGES OF SLDC IS APPLICABLE TO GENERATORS AND LICENSEE.