

# CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION

## RAIPUR



Chhattisgarh State Power Generation Co. Ltd.	.....	P. No. 02/2020 (T)
Chhattisgarh State Power Transmission Co. Ltd	.....	P. No. 03/2020 (T)
Chhattisgarh State Load Despatch Centre	.....	P. No. 04/2020 (T)
Chhattisgarh State Power Distribution Co. Ltd.	.....	P. No. 12/2020(T)

**Present:**           **D. S. Misra, Chairman**  
                              **Arun Kumar Sharma, Member**  
                              **Vinod Deshmukh, Member (Judicial)**

### **In the matter of –**

1. Chhattisgarh State Power Generation Company Ltd. (CSPGCL) Petition for final true-up for FY 2017-18 and FY 2018-19;
2. Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) Petition for final true-up for FY 2017-18 and FY 2018-19;
3. Chhattisgarh State Load Despatch Centre (CSLDC) Petition for final true-up for FY 2017-18 and FY 2018-19;
4. Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) Petition for final true-up for FY 2017-18, provisional true up for FY 2018-19, and determination of Retail Supply Tariff for FY 2020-21.

### **ORDER**

**(Passed on 30/05/2020)**

1. As per provisions of the Electricity Act, 2003 (hereinafter referred as 'the Act') and the tariff policy, the Commission has notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according

to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred as 'CSERC MYT Regulations, 2015') for determination of tariff for the generating company, licensees, and Chhattisgarh State Load Despatch Centre (CSLDC).

2. This order is passed in respect of the petitions filed by the (i) Chhattisgarh State Power Generation Company Ltd. (CSPGCL) for approval of final true-up for FY 2017-18 and FY 2018-19, (ii) Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) for approval of final true-up for FY 2017-18 and FY 2018-19, (iii) Chhattisgarh State Load Dispatch Centre (CSLDC) for approval of final true-up for FY 2017-18 and FY 2018-19.
3. Since the Chhattisgarh State Power Distribution Company Limited did not file any tariff petition, the Commission, by virtue of the direction issued by the APTEL Judgment dated November 11, 2011 in OP No. 01 of 2011, registered suo-motu petition No. 12 of 2020 on January 9, 2020 and proceeded with determination of tariff for the relevant year. However, in reply to the notice issued by the Commission, CSPDCL filed detailed petition for final true-up for FY 2017-18, provisional true up for FY 2018-19, and determination of retail supply tariff for FY 2020-21.
4. This order is passed under the provisions of Section 32(3), Section 45, and Section 62 read with Section 86(1) of the Act. The Commission, before passing the combined order on the above petitions, has considered the documents filed along with the petitions, supplementary information obtained after technical validation, suggestions emerging from the applicant Companies, the consumers, their representatives and other stakeholders during the public hearing.
5. The petitions were made available on the Commission's website. The petitions were also available at the offices of the petitioners. A public notice along with the gist of the petitions was also published in the newspapers and objections/suggestions were invited as per the procedure laid down in the Regulations. Further, the Commission conducted hearings on the petitions in its office at Raipur on 17<sup>th</sup> and 18<sup>th</sup> March 2020. The Commission also held a meeting with Members of the State Advisory Committee on March 16, 2020 for seeking their valuable suggestions and comments. The Commission has finalised its views, considering the suggestions/objections and after performing necessary due diligence on each of the issues.

6. The Commission has undertaken final true-up for FY 2017-18 and FY 2018-19 for CSPTCL, CSLDC and CSPGCL and for FY 2017-18 for CSPDCL, based on the audited accounts submitted by utilities and in accordance with the provisions of the CSERC MYT Regulations, 2015. Further, the Commission has undertaken provisional true up for FY 2018-19 for CSPDCL based on the provisional accounts submitted by CSPDCL and in accordance with the provisions of the CSERC MYT Regulations, 2015. The final true-up for CSPDCL for FY 2018-19 shall be undertaken after filing of true-up petition by CSPDCL based on audited annual accounts for FY 2018-19, subject to prudence check.
7. In the Multi-Year Tariff (MYT) order passed on March 31, 2016, the Commission had approved the ARR and tariff for the control period from FY 2016-17 to FY 2020-21 for the utilities, in accordance with the provisions of the CSERC MYT Regulations, 2015. Further, the Commission passed the tariff order for FY 2017-18 on March 31, 2017 and for FY 2018-19 on March 26, 2018.
8. The revenue surplus/(gap) of CSPGCL, CSPTCL and CSLDC arising out of final true-up for FY 2017-18 and FY 2018-19, along with corresponding carrying/holding cost, have been considered while computing the cumulative revenue surplus /(gap) to be allowed for CSPDCL for FY 2020-21.
9. After applying the holding cost on revenue surplus of CSPGCL for FY 2017-18 and FY 2018-19, the total revenue surplus up to FY 2020-21 has been approved as Rs. 239.77 cr.
10. After applying the holding cost on the revenue surplus of CSPTCL for FY 2017-18 and FY 2018-19, the total revenue surplus up to FY 2020-21 has been approved as Rs. 60.35 cr. Similarly, after applying the carrying cost on revenue gap of CSLDC for FY 2017-18 and FY 2018-19, the total revenue gap up to FY 2020-21 has been approved as Rs. 3.36 cr.
11. The revenue gap of CSPDCL after applying the carrying cost for FY 2017-18, FY 2018-19 up to FY 2020-21 is computed as Rs. 1716.64 cr. The cumulative revenue surplus/(gap) of CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2017-18 and FY 2018-19 along with carrying/holding cost amounting to Rs. 1,537.69 Cr, has been considered in the ARR of CSPDCL for FY 2020-21.

12. The Commission notes that the State of Chhattisgarh is in a state of lockdown because of the COVID-19 pandemic. The Commission is conscious of the difficult conditions, which the country and the State are going through. The Government of India has itself declared the prevailing situation as a force majeure event. The Commission appreciates that most industrial and commercial establishments have been shut down due to lockdown conditions. The prime function of the Commission is to protect the interest of the consumer and at the same time ensuring recovery of cost by the utilities.
13. The present circumstances are unforeseen and unprecedented. It is also true that extraordinary situations require extraordinary solutions. This is a matter of public interest and the Commission deems it fit to provide some relief to consumers and utilities in the State of Chhattisgarh in order to mitigate the difficulties being faced, to some extent, in the context of the all-out efforts to contain the spread of COVID-19 pandemic.
14. As an immediate measure, the Commission, vide its order dated April 21, 2020, May 1, 2020 and May 6, 2020 in Petition No. 40, 46 & 47 of 2020 respectively, has already provided certain relaxation to generating companies, licensees and consumers in the State of Chhattisgarh, in order to mitigate the impact of COVID-19.
15. Further, the Government of India has announced Atmanirbhar Bharat special economic and comprehensive package on May 13, 2020, wherein liquidity infusion of Rs. 90,000 cr. is to be given to distribution licensees against receivables and loans against State Government Guarantees for discharging liabilities to Central Sector power utilities. Further, the Ministry of Power, vide letter No. 11/16/2020-Th-II dated 15<sup>th</sup> & 16<sup>th</sup> May 2020, directed that all Central Public Sector Generation Companies and Central Sector Public Transmission Company may consider to offer rebate of about 20-25% on power supply billed (fixed cost) and inter-State transmission charges, and deferment of fixed charges for power not scheduled without interest, etc. The Commission has considered the impact of such estimated rebate as Rs. 113.43 cr., while considering power purchase cost for FY 2020-21.
16. Further, it is noted that the Commission, in the MYT order dated March 31, 2016, had approved O&M Expenses for all Utilities by considering CPI increase of 9.05% and WPI increase of 6.77%, based on average of five years increase from FY 2010-11 to FY 2014-15. The Commission notes that actual indices in respect of CPI and WPI are

available now, till FY 2019-20. The Commission has also undertaken true-up for FY 2017-18 and FY 2018-19 in this order based on the actual indices of CPI and WPI. Therefore, the Commission is of the view that, in the interest of consumers, it would be prudent to adopt the latest indices for computing normative O&M Expenses. The Commission, after exercising its inherent powers under the Act and CSERC MYT Regulations, 2015, decides to revise the normative O&M Expenses based on the actual indices available now. Hence, the Commission has revised O&M Expenses for FY 2020-21 by applying increase in CPI of 7.53 % and WPI of 1.68 % on O&M expenses for FY 2018-19 approved in this order.

17. The Commission, in the MYT order dated March 31, 2016 had approved capitalisation based on the Capital Investment Plan for MYT control period. Considering the likely impact of lockdown on implementation of the approved projects, the Commission has revised the capitalisation for CSPGCL and CSPTCL for FY 2020-21 and approved depreciation, interest on loan capital and return on equity accordingly.
18. Further, the Commission notes that it has approved Return on Equity for FY 2020-21 at 15.5% for CSPGCL, CSPTCL and CSLDC and at 16% for CSPDCL. The return on equity is nothing but the regulatory profit approved by the Commission in the present MYT framework. It is also noted that Central Sector Power companies have also provided relief to end consumer and took a hit on their returns. The Commission is of the view that it may not be prudent to allow the power utilities in the State to avail returns at such higher rate, keeping in view the severe difficulties being faced by the consumers because of COVID-19 pandemic. Hence, the reduction in rate of return is required to be considered for State utilities. Accordingly, the Commission shall, at time of truing up for FY 2020-21, consider the reduced rate of return for approving the return on equity.

#### **CSPGCL: Tariff for FY 2020-21**

19. Keeping in view the unusual hike in fuel prices, the Commission, in its tariff order for FY 2017-18 dated March 31, 2017, had revised the Energy Charge Rate(s)(ECR) for CSPGCL's generating stations, except for ABVTPP for FY 2017-18. Further, the Commission vide its Order dated July 7, 2018 in Petition No. 31 of 2018 has approved Energy Charge Rate for FY 2020-21 for ABVTPP. The existing ECR in the orders are shall be continued for FY 2020-21 as well. As discussed earlier, after

considering the reduction in O&M Expenses and capitalisation, the Annual Fixed Cost (AFC) and Energy Charge Rate for CSPGCL stations, approved by the Commission for FY 2020-21, areas under:

**Thermal Power Stations**

Sl.	Particulars	Units	FY 2020-21				
			KTPS	HTPS	DSPM	KWTPP	ABVTPP
1	Annual Fixed Cost	Rs. Cr.	263.20	538.91	456.42	604.30	1,508.31
2	Energy Charge Rate (ex-bus power plant basis)	Rs./kWh	1.927	1.487	1.545	1.264	1.393
3	Contribution to Pension & Gratuity (P&G)	Rs. Cr.	65.60	67.92	11.16	10.99	24.81

**Hydro Power Station (Hasdeo Bango)**

Sl. No.	Particulars	Units	FY 2020-21
1	Approved Annual Fixed Cost	Rs. Cr.	25.60
2	Approved Net Generation	MU	271.26
3	Approved Tariff	Rs./kWh	0.944
4	Contribution to P&G	Rs. Cr.	4.53

**CSPTCL: Tariff for FY 2020-21**

20. For CSPTCL, the transmission charge for FY 2020-21 shall be as under:

Sl.	Particulars	Units	FY 2020-21
A	ARR for CSPTCL (including contribution to pension and gratuity)	Rs. Cr.	1,002.42
B	<i>Less:</i> past year cumulative revenue surplus	Rs. Cr.	60.35
C	Net Approved ARR (A-B)	Rs. Cr.	942.07
D	Monthly Transmission Charges for Medium-term and Long-term Open Access Consumers (C/12)	Rs. Cr./month	78.51
5	Short-term Open Access Charges	Rs./kWh	0.3244

Further, transmission losses of 3% for the energy scheduled for transmission at the point or points of injection shall be recoverable from Open Access customers.

**CSLDC: Tariff for FY 2020-21**

21. For CSLDC, the Commission has revised ARR to Rs. 13.71 Cr. for FY 2020-21. Accordingly, System Operation Charges are approved as Rs. 10.97 cr. and Intra-State Market Operation Charges as Rs. 2.74 cr. for FY 2020-21.

**CSPDCL: Tariff for FY 2020-21**

22. For FY 2020-21, CSPDCL has sought approval for ARR of Rs. 14,230.05 cr. As against this, the Commission, after prudence check and due scrutiny, has approved the ARR at Rs. 12,486.90 cr. The State Government subsidy has not been taken into account while approving the ARR of CSPDCL for FY 2020-21.
23. CSPDCL, in its petition for FY 2020-21, has sought approval for cumulative revenue gap of Rs. 3,559.17 cr. pertaining to previous years. As against this, the Commission, after prudence check and due scrutiny, has arrived at a cumulative revenue gap of Rs. 1,716.64 cr.
24. After adjusting the cumulative revenue surplus/(gap) combined for CSPGCL, CSPTCL, CSLDC and CSPDCL, the Commission has arrived at cumulative revenue gap of Rs. 1,537.69 cr. for CSPDCL for FY 2020-21.
25. After considering the ARR and revenue from sale of electricity for FY 2020-21, stand-alone revenue surplus has been estimated at Rs. 1324.69 cr. After adjusting the cumulative revenue gap of Rs. 1,537.69 cr. of previous years, the Commission approves net revenue gap of Rs. 213 cr.
26. In order to mitigate the difficulties being faced because of the spread of COVID-19 pandemic, the Commission decides to continue with the existing Tariff approved for FY 2019-20 vide order dated February 28, 2019. Accordingly, the net ARR for recovery through tariff for FY 2020-21 has been approved as Rs. 13,812 cr. for CSPDCL. *Average Cost of Supply has been approved as Rs. 5.93/kWh, compared to Rs. 6.07/kWh for FY 2019-20.*

27. *The regulatory asset of Rs. 213 cr. has been approved for FY 2020-21 and the same shall be considered for recovery through tariff in the next tariff order.*
28. Though the Commission has decided to continue with the existing tariff as approved for FY 2019-20, certain terms and conditions of tariff have been further rationalised based on the suggestions and objections received from various stakeholders and Commission's analysis. Accordingly, the Commission has made following changes in this order as compared to the previous tariff order:
- a) For the purpose of calculating load factor rebate, on energy charges, available to 'HV-4: Steel Industries' category, the maximum prescribed load factor has been scaled down from load factor of '77% and above' to load factor of '70% and above'.
  - b) In case of excess supply to consumers (other than of HV-7 tariff category) having minimum contract demand of 150 MVA, and having captive generating plant(s) of capacity of atleast 150 MW, such consumers shall have to pay an additional demand charges of Rs. 20/kVA/month on the quantum of power availed over and above its contract demand notwithstanding anything contained anywhere in this order. Further, energy consumed corresponding to excess supply shall be billed at normal tariff. This provision is intended to remove the difficulties being faced by such consumers in the event of outage of its CGP.
  - c) The hospitals run by charitable trusts, which avail supply at high voltage level shall now be covered under HV-6 category, which is having a comparatively lower tariff.
  - d) Hospitals in the HV-3tariff category shall be entitled for a discount of 5% on Energy Charges.
  - e) Private clinics and nursing homes including X-Ray units, diagnostic centres and pathological labs in the LV-2 tariff category shall be entitled for a discount of 5% on Energy Charges.
  - f) Rice mills in the HV-3 tariff category shall be entitled for a discount of 5% on Energy Charges.
  - g) Parallel operation charges payable by captive users and non-captive users shall be governed by the order dated 05/04/2019 passed in petition No. 09 of 2018 and its subsequent amendments from time to time.



29. For ready reference, the Tariff Schedule applicable in reference to this order is appended herewith as **Schedule**.
30. The order will be applicable from 1<sup>st</sup> June, 2020 and will remain in force till March 31, 2021 or till the issue of next tariff order, whichever is later. The terms and conditions of LV and HV tariff shall be read along with relaxation provided by the Commission vide its order dated April 21, 2020, May 1, 2020 and May 6, 2020 in Petition No. 40, 46 & 47 of 2020 respectively or any other order issued from time to time.
31. The Commission directs the companies to take appropriate steps to implement the tariff order.

**Sd/-**  
**(VINOD DESHMUKH)**  
**MEMBER**

**Sd/-**  
**(ARUN KUMAR SHARMA)**  
**MEMBER**

**Sd/-**  
**(D. S. MISRA)**  
**CHAIRMAN**

# CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION

## RAIPUR



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**Present:**       **D. S. Misra, Chairman**  
                          **Arun Kumar Sharma, Member**  
                          **Vinod Deshmukh, Member (Judicial)**

### **In the matter of –**

1. Chhattisgarh State Power Generation Company Ltd. (CSPGCL) Petition for final true-up for FY 2017-18 and FY 2018-19;
2. Chhattisgarh State Power Transmission Company Ltd. (CSPTCL) Petition for final true-up for FY 2017-18 and FY 2018-19;
3. Chhattisgarh State Load Despatch Centre (CSLDC) Petition for final true-up for FY 2017-18 and FY 2018-19;
4. Chhattisgarh State Power Distribution Company Ltd. (CSPDCL) Petition for final true-up for FY 2017-18, provisional true up for FY 2018-19, and determination of Retail Supply Tariff for FY 2020-21.

### **CORRIGENDUM ORDER**

**(Passed on July 3, 2020)**

The following corrections are made in Order in the above petitions issued by the Commission on May 30, 2020. In Order, an inadvertent typographical error has been noticed in computation of revenue gap/(surplus) arising out of final true-up for FY

2017-18 and final/provisional true-up for FY 2018-19. Accordingly, the following changes have been made in the Order.

2. In para 9 of the Order, the total revenue surplus up to FY 2020-21 for CSPGCL shall be read as Rs. 225.51 cr. instead of Rs. 239.77 cr.
3. In para 10 of the Order, total revenue surplus up to FY 2020-21 for CSPTCL shall be read as Rs. 53.08 Cr. instead of Rs. 60.35 Cr. Similarly, total revenue gap up to FY 2020-21 for CSLDC shall be read as Rs. 3.18 Cr. instead of Rs. 3.36 Cr.
4. In para 11 and 24 of the Order, the cumulative revenue surplus/(gap) of CSPGCL, CSPTCL, CSLDC, and CSPDCL for FY 2017-18 and FY 2018-19 along with carrying/holding cost shall be read as Rs. 1548.09 Cr. instead of Rs. 1,537.69 Cr.
5. In para 20, transmission charge for CSPTCL for FY 2020-21 shall be read as under:

Sl.	Particulars	Units	FY 2020-21
A	ARR for CSPTCL (including contribution to pension and gratuity)	Rs. Cr.	1,002.42
B	<i>Less: past year cumulative revenue surplus</i>	Rs. Cr.	53.08
C	Net Approved ARR (A-B)	Rs. Cr.	949.34
D	Monthly Transmission Charges for Medium-term and Long-term Open Access Consumers (C/12)	Rs. Cr./month	79.11
5	Short-term Open Access Charges	Rs./kWh	0.3269

6. After considering the changes in cumulative revenue gap/(surplus) for CSPGCL, CSPTCL, CSLDC and CSPDCL, Para 25 and 27 of the Order shall be read as under:

*“25. After considering the ARR and revenue from sale of electricity for FY 2020-21, stand-alone revenue surplus has been estimated at Rs. 1244.17 cr. After adjusting the cumulative revenue gap of Rs. 1,548.09 cr. of previous years, the Commission approves net revenue gap of Rs. 303.92 cr.*

*27. The regulatory asset of Rs. 222.22 cr. has been approved for FY 2020-21 and the same shall be considered for recovery through tariff in the next tariff order.*

7. The Commission directs the companies to take appropriate steps to implement the tariff order.

**Sd/-  
(VINOD DESHMUKH)  
MEMBER**

**Sd/-  
(ARUN KUMAR SHARMA)  
MEMBER**

**Sd/-  
(D. S. MISRA)  
CHAIRMAN**

## LIST OF ABBREVIATIONS

Abbreviation	Description
A&G	Administrative and General
AMC	Annual Maintenance Contract
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
CSPDCL	Chhattisgarh State Power Distribution Company Limited
CSPGCL	Chhattisgarh State Power Generation Company
CSPHCL	Chhattisgarh State Power Holding Company Limited
CSPTCL	Chhattisgarh State Power Transmission Company Limited
CSPTTrCL	Chhattisgarh State Power Trading Company Limited
CWIP	Capital Work in Progress
DPS	Delayed Payment Surcharge
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

<b>Abbreviation</b>	<b>Description</b>
MMC	Monthly Minimum Charges
MT	Metric Tonnes
MU	Million Units
MYT	Multi Year Tariff
NTI	Non-Tariff Income
O&M	Operations and Maintenance
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RoE	Return on Equity
Rs	Rupees
SBI	State Bank of India
SCADA	Supervisory Control and Data Acquisition
SERC	State Electricity Regulatory Commission
SLDC	State Load Dispatch Centre
SLM	Straight Line Method
T&D Loss	Transmission and Distribution Loss
UI	Unscheduled Interchange

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# **1 BACKGROUND AND BRIEF HISTORY**

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## **1.1 Background**

The Chhattisgarh State Electricity Board (CSEB) was restructured by the State Government in pursuance of the provisions of Part XIII of the Electricity Act, 2003. The Government of Chhattisgarh (GoCG) vide notification No. 1-8/2008/13/1 dated December 19, 2008, issued the CSEB Transfer Scheme Rules, 2008 with effect from January 1, 2009. The erstwhile CSEB was unbundled into five different Companies, viz., Chhattisgarh State Power Generation Company Limited (CSPGCL), Chhattisgarh State Power Transmission Company Limited (CSPTCL), Chhattisgarh State Power Distribution Company Limited (CSPDCL), Chhattisgarh State Power Trading Company Limited (CSPTCL), and Chhattisgarh State Power Holding Company Limited (CSPHCL). The assets and liabilities of the erstwhile CSEB have been allocated to the successor Companies w.e.f. January 1, 2009 according to the provisions of the CSEB Transfer Scheme Rules, 2010. The validity of the present Transfer Scheme is extended till December 2018.

## **1.2 The Electricity Act, 2003, Tariff Policy and Regulations**

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

Section 62 of the Act stipulates that the Commission shall determine the tariff for:

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

The Tariff Policy notified by the Government of India in January 2006, as well as the amended Tariff Policy notified in January 2016, 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.

### **1.3 Procedural History**

The Commission notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred to as MYT Regulations, 2015) on September 9, 2015. Based on the above Regulations, the Commission issued the MYT Order dated April 30, 2016 for CSPGCL, CSPTCL, CSLDC and CSPDCL for the Control Period from FY 2016-17 to FY 2020-21.

Subsequently, the Commission has issued Tariff Order for FY 2016-17 and FY 2018-19. Further, Utilities had filed Petitions for final true-up for FY 2016-17 and provisional True-up for FY 2017-18, on which the Commission has issued Order February 28, 2019, along with Tariff for FY 2019-20.

Now, CSPGCL filed the petition for approval of final true-up for FY 2017-18 and FY 2018-19 for Thermal Generation Stations and Hydro Electric Plants on 30/12/2019, which was registered as Petition No. 02 of 2020 (T). CSPTCL filed the Petition for approval of final true-up for FY 2017-18 & FY 2018-19 and determination of Transmission Tariff for FY 2020-21 on 28/12/2019, which was registered as Petition No. 03 of 2020 (T). Also, CSLDC filed the Petition for approval of final true-up for FY 2017-18 and FY 2018-19 on 28/12/2019, which was registered as Petition No. 04 of 2020 (T).

Since the Chhattisgarh State Power Distribution Company Limited (CSPDCL) did not file any tariff petition, the Commission, by virtue of the direction issued by the Hon'ble APTEL Judgment dated November 11, 2011 in OP No. 01 of 2011, registered suo-motu petition No. 12 of 2020 on January 9, 2020 and proceeded with determination of tariff for the relevant year. However, in reply to the notice issued by the Commission, CSPDCL filed detailed petition for final true-up for FY 2017-18, provisional true up for FY 2018-19, and determination of retail supply tariff for FY 2020-21.

In this Order, the Commission has undertaken the final true-up for FY 2017-18& FY 2018-19 for CSPGCL, CSPTCL and CSLDC in accordance with the provisions of the MYT Regulations, 2015. In case of CSPDCL, the Commission has undertaken final true-up for FY 2017-18, provisional true-up for FY 2018-19 and determination of revised ARR and Tariff for FY 2020-21. The Commission in this order has undertaken the final true-up based on audited accounts and provisional true-up based on the available provisional accounts. The Hon'ble APTEL in OP.NO.1 of 2011 has directed the state Commission to ensure that the Annual Performance review, true-up of past expenses has to be carried out on year to year basis.

#### **1.4 Admission of the Petition and Hearing Process**

The Petitions filed by CSPTCL, CSPGCL and CSLDC were registered on 02/01/2020. Since the Chhattisgarh State Power Distribution Company Limited did not file any tariff petition, the Commission, by virtue of the direction issued by the APTEL Judgment dated November 11, 2011 in OP No. 01 of 2011, registered suo-motu petition No. 12 of 2020 on January 9, 2020 and proceeded with determination of tariff for the relevant year. However, in reply to the notice issued by the Commission, CSPDCL filed detailed petition for final true-up for FY 2017-18, provisional true up for FY 2018-19, and determination of retail supply tariff for FY 2020-21.

The Companies were directed to publish the abridged version of the Petition in Hindi and English newspapers for inviting comments / objections / suggestions from all the stakeholders. The Petitions were made available on the website of the Commission as well as on the Petitioners' websites. As required under Clause 21 of the CSERC (Details to be furnished by licensee etc.) Regulations, 2004, notices inviting suggestions /comments/objections from the stakeholders on the above proposals were published CSPGCL and CSPTCL on 24/01/2020, CSLDC on 07/02/2020 and CSPDCL on 19/02/2020 in the leading news papers of the State.

A period of twenty-one (21) days was given for submission of written objections and suggestions by the public. The Companies were also directed to submit written replies to the Commission with copies endorsed to the objectors.

In order to have better clarity on the data submitted by the Petitioners and to remove inconsistency in the data, the Technical Validation Sessions (TVS) were held on 27/02/2020 & 28/02/2020 with the petitioners. During the TVS, additional information required for processing of the Petitions was sought from the Petitioners.

The Petitioners submitted the additional information sought in the TVS. The Notices under Section 94(2) of the Act were published on 01/03/2020 and 13/03/2020 in the leading news papers of the State.

The objections and suggestions from stakeholders were received on the Petitions filed by CSPGCL, CSPTCL, CSPDCL and CSLDC. The list of persons who filed the written submissions is annexed as **Annexure-I**.

The hearing was held on March 17 and 18, 2020 in the Commission's office at Raipur. The Commission has ensured that the due process as contemplated under the law to ensure transparency and public participation was followed at every stage and adequate opportunity was given to all the persons to offer their views. The list of persons who submitted comments during the Hearing is annexed as **Annexure-II**.

The issues raised by the stakeholders along with the response of the Petitioners' and views of the Commission are elaborated in Chapter 2 of this Order.

## **1.5 State Advisory Committee Meeting**

A copy of the abridged Hindi and English version of the Petitions were also sent to all the members of the State Advisory Committee of the Commission for their comments.

A meeting of the State Advisory Committee was convened on 16/03/2020 to discuss the Petitions and seek inputs from the Committee. CSPGCL, CSPTCL, CSLDC and CSPDCL gave presentations in the meeting on the salient features of their Petitions. Various aspects of the Petitions were discussed by the Members of the Committee in the meeting. The list of the members who participated in the meeting is annexed as **Annexure III**.

The following suggestions and Objections were submitted:

- a) The amount of Security Deposit being taken from the consumers should be reduced to reduce the burden on the consumers.
- b) The efficiency of distribution licensee and transmission licensee be improved.
- c) As per available data, Chhattisgarh's rank is 3<sup>rd</sup> from the bottom in implementation of UDAY schemes. Approximately 75 % of loan amount of UDAY scheme has been waived. But there is no substantial change in the balance sheet. As per UDAY agreement, the losses should be not more than 15% whereas the T&D losses of CSPDCL is 18% in FY 2018-19. CSPDCL should be directed to reduce these losses in accordance with the UDAY agreement.

- d) In FY 2017-18, CSPDCL has sold around 1899 MU to other States at price around Rs. 3.5/unit which is less as compared to its power purchase cost. Whereas this power could have been given to the industrial consumers of the State at a rate higher than Rs. 3.5/-.
- e) All the members suggested that the tariff should not be increased or at least be kept at the same level.

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

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### **2.1 Objections for CSPGCL**

#### **2.1.1 Payment of Pension, Gratuity and Other retirement benefits by Power Companies**

The Objector submitted that the Power Companies have calculated Contribution of Pension and Gratuity on actual basis, whereas the revenue from operations is accounted on accrual basis. Hence, the Objector requested that expense towards Pension and Gratuity should also be accounted on accrual basis.

##### **Petitioner's Reply**

CSPGCL submitted that it has filed the Petition in accordance with the governing Regulations, previous Orders and prevailing procedures. If approved by the Commission, CSPGCL has no objection in making additional payments in accordance with the suggestion made by the Objector. CSPGCL further submitted that as a responsible corporate entity, it is bound to comply with all statutory obligations.

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

In line with the approach adopted in past Orders, the Commission has approved the Contribution to Pension and Gratuity based on the amount approved in the MYT order irrespective of the provision made in the Accounts. The detailed approach is elaborated in Chapter 3 of this Order.

#### **2.1.2 Data Transparency**

The Objector submitted that the Power Companies have not submitted data and information on several issues and the submitted data is flawed in many cases.

##### **Petitioner's Reply**

CSPGCL submitted that all data related to availability/ scheduling/ injection relied on by CSPGCL are based on SLDC certification and revenue figures are based on bills (in accordance with the methodology approved by the Commission in the previous Orders).

### **Commission's View**

The Commission notes that CSPGCL has submitted the data relevant to the Petition and replies to data queries raised by the Commission. The Commission has finalised the true-up for FY 2017-18 and FY 2018-19 for CSPGCL based on the data and information submitted by CSPGCL, after due prudence check.

#### **2.1.3 Income Tax paid by CSPGCL**

The Objector submitted that during FY 2017-18 and FY 2018-19, CSPGCL has paid huge amount of Rs.52.79 Cr. and Rs.76.92 Cr., respectively, towards Income Tax. The Objector suggested that all Power Companies except CSPTCL, should be merged immediately so that huge expenses (about Rs.100 Cr every year) are saved.

#### **Petitioner's Reply**

No reply submitted by CSPGCL.

### **Commission's View**

The Commission has allowed Income tax for CSPGCL for FY 2017-18 and FY 2018-19, after due prudence check. Further, the Commission is of the view that the erstwhile CSEB was unbundled in accordance with the provisions of the Act, in order to achieve greater transparency and accountability among the different segments, viz., Generation, Transmission, and Distribution. Moreover, the decision of reorganisation and restructuring of electricity industries is prerogative of the State Government.

## **2.2 Objections for CSPTCL**

### **2.2.1 High Short-Term Open Access (STOA) Charges**

The Objector submitted that STOA charges are high and requested the Commission to reduce the STOA charges.

#### **Petitioner's Reply**

CSPTCL submitted that the Commission, in the MYT Order, has approved transmission losses of 3.22%. In the Tariff Order dated February 28, 2019, the Commission has determined short-term Transmission Charges of 29.60 paise/unit and mentioned that transmission losses of 3% or the energy scheduled for transmission at the point or points of injection shall be recoverable from Open Access customers. The



proposed charges of 34.33 paise/unit have been derived by CSPTCL based on the methodology adopted by the Commission in the previous Order.

### **Commission's View**

The Commission has approved STOA Charges based on the methodology adopted in the past Tariff Orders. The Commission has determined STOA charges of 32.69 paise per unit as against 34.33 paise per unit proposed by CPSTCL. The detailed computation has been given in Chapter 4 of this Order.

## **2.3 Objections for SLDC**

### **2.3.1 High Operating charges of SLDC**

The Objector submitted that the Operating Charges of Rs. 2000 per transaction per day are very high. The Objector cited examples of States like Delhi, Sikkim, Haryana, Uttar Pradesh and Jammu & Kashmir, wherein such charges are Rs. 1000 per transaction per day. The Objector requested the Commission to reduce the Operating Charges and make it at par with other States.

### **Petitioner's Reply**

CSLDC submitted that it comes under WRLDC in case of transmission. The other States like Maharashtra and Madhya Pradesh within WRLDC are having Operating Charges of Rs. 2250 and Rs. 3000, respectively per transaction per day. CSLDC further submitted that the comparison should be made with relevant States, which come under the same RLDC. CSLDC submitted that, in line with the charges prevalent in other States, it is eligible to charge Rs. 2000 per transaction per day.

### **Commission's View**

The Commission has retained the Operating Charges of Rs. 2000 per transaction per day, which is at par with that prevalent in other States in the Western Region.

## **2.4 Objections for CSPDCL**

### **2.4.1 Sales forecast for agricultural consumption**

The Objector submitted that CSPDCL has underestimated Agriculture Consumption for FY 2020-21. Hence, the revenue projected from Agriculture category is also understated. Also, as decided in previous Tariff Orders, the Study Report on Agricultural Consumption should be made available along with the Tariff Order for

FY 2020-21. The Action Taken Report to curb the large number of defective energy meters and present status of such meters as observed in the Tariff Order for FY 2018-19 and FY 2019-20 should be made available along with Tariff Order for FY 2020-21. The actual agricultural consumption for FY 2018-19 and sales forecast for FY 2020-21 should be approved based on realistic projections.

### **Petitioner's Reply**

CSPDCL submitted that administrative proposal to undertake field level study in compliance of the Commission's directives in the Tariff Order for FY 2019-20 is under consideration. However, energy sales projected for FY 2020-21 is in line with the sales projection approved by the Commission in the Tariff Order for FY 2019-20. Further, Agriculture Consumption during FY 2017-18 and FY 2018-19 are based on R-15, which is based on meter readings or assessment according to the provisions of Supply Code in cases where meter reading is absent.

### **Commission's View**

In the past, the Commission had projected the agriculture sales on the basis of Compounded Annual Growth Rate (CAGR). However, it has been observed that actual agriculture sales reported by CSPDCL are mostly based on assessed sales on account of high number of defective meters. Hence, in the Tariff Order for FY 2019-20, the Commission estimated the agriculture sales by applying consumption norms in terms of units per HP per month, derived on the basis of feeder level data. In the absence of the Study Report on Agriculture Consumption, the Commission has adopted the same approach for estimating sales for FY 2020-21, as decided in Tariff Order for FY 2019-20. The approach of the Commission is detailed in Chapter 7 of this Order. A suo-motu petition has been initiated regarding this issue.

## **2.4.2 UDAY Scheme and Distribution Losses**

The Objector submitted that after the MoU between GoI, GoCG and CSPDCL, under the UDAY Scheme, the Commission had amended its MYT Regulations to specify distribution loss trajectory in line with the UDAY Scheme. The Commission, in past Tariff Orders, has been approving the distribution losses as per these amended Regulations. In the True-up, CSPDCL has claimed a Distribution Loss below 33 kV as 19.36% for FY 2017-18 and 19.3% for FY 2018-19 based on target approved in MYT Order. Further, in the revised ARR for FY 2020-21, CSPDCL has claimed a

Distribution Loss below 33 kV as 16.50%. In spite of the matter being decided in the earlier Tariff Order, CSPDCL has claimed that AT&C loss targets prescribed in UDAY are flexible in nature, and has computed the incentive on account of lower than previously specified targets of Distribution Losses in the MYT Order.

The Objector requested the Commission to allow AT&C Loss of maximum 18% and 15% for FY 2017-18 and FY 2018-19 respectively, and even lower for upcoming years. The Objector also requested to disallow any revenue losses due to under-achievement with respect to target loss levels specified under the CSERC MYT Regulations, 2015.

Another Objector pointed out that CSPDCL has submitted Distribution losses of 19.3% in Truing up of FY 2018-19 and 16.50% in revised ARR for FY 2020-21. Loss reduction of this magnitude is not possible, and this will affect the cash flows for FY 2020-21. The Objector proposed to consider the actual losses till January 2020 for determination of Tariff of FY 2020-21.

### **Petitioner's Reply**

CSPDCL submitted that the request of the Objector has no basis because CSPDCL has not claimed any incentive towards over-achievement of performance during true-up years. As regards the consideration of AT&C losses agreed under UDAY Scheme in accordance with Regulation 71.3 of the MYT Regulations, 2015, CSPDCL has made a detailed submission in the Petition. The Objector has not submitted any justification to substitute Distribution Losses with AT&C losses for the purpose of prudence check.

### **Commission's View**

For the purpose of true-up for FY 2017-18 and FY 2018-19, the Commission has approved Distribution Losses based on actual energy sales and purchase, and considered the Distribution Losses approved based on the UDAY Scheme. The Commission has not considered any sharing of gains/losses for CSPDCL on this account. The detailed rationale for the same has been provided in Chapter 6 of this Order.

The Commission in its MYT Order has approved higher trajectory for Distribution Losses. However, the same was revised subsequently based on UDAY Scheme. For FY 2020-21, the Commission has approved the target of 16% for Distribution Losses,

which is 0.50% lower than the target approved for FY 2019-20. The detailed approach of the Commission is discussed in Chapter 7 of this Order.

### **2.4.3 Non-reconciliation with CSPGCL, CSPTCL and CSLDC by CSPDCL and excess amount claimed**

The Objector submitted that CSPDCL has not reconciled data in its Petition with data submitted by CSPGCL, CSPTCL and CSLDC in their respective Petitions. CSPGCL, in its Petition, has shown revenue from sale of power as Rs. 6,803.37 Cr. for FY 2017-18 and Rs. 6,805.05 Cr. for FY 2018-19, whereas CSPDCL has claimed cost of power purchase from CSPGCL as Rs. 7,122.38 Cr. for FY 2017-18 and Rs. 6,892.81 Cr. for FY 2018-19. Thus, CSPDCL has claimed excess amount of Rs. 319.01 Cr. and Rs. 87.76 Cr. during FY 2017-18 and FY 2018-19 respectively. Similarly, CSPDCL has claimed excess Annual Fixed Cost for Transmission of Rs. 17.88 Cr. for FY 2017-18 and Rs. 36.80 Cr. for FY 2018-19 as compared to data submitted by CSPTCL in its Petition.

The Objector also submitted that CSPDCL, while computing the cumulative Revenue Gap for FY 2020-21, has not included the Revenue Surplus of Rs. 185.09 Cr. for CSPGCL and Revenue Surplus of Rs. 52.27 Cr. for CSPTCL, as submitted in their respective True-up Petitions.

#### **Petitioner's Reply**

CSPDCL denied the contentions of the Objector. The amount payable by CSPDCL includes Delayed Payment Surcharges, duty and taxes etc. To that extent, mismatch in the data is justified. According to CSERC MYT Regulations, 2015, income from Delayed Payment Surcharge is not included in revenue. Therefore, CSPGCL and CSPTCL have not included the same in their Petitions. CSPDCL submitted the statement of reconciliation towards power purchase expenses through letter No. 3105 dated March 5, 2020 to the Commission, in response to data queries.

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

The Commission sought the reconciliation of expenses claimed by CSPDCL vis-à-vis revenue submitted by CSPGCL and CSPTCL in their respective Petitions. The Commission has approved the power purchase cost and transmission charges for CSPDCL after due prudence check. The details are provided in Chapter 6 of this Order.

Further, while considering the cumulative Revenue Gap and adjusted Aggregate Revenue Requirement (ARR) for recovery through Tariff in FY 2020-21 for CSPDCL, the Commission has considered the Revenue Gap/(Surplus) arising out of final true-up for FY 2017-18 and FY 2018-19 for CSPGCL, CSPTCL and CSLDC. The details are provided in Chapter 8 of this Order.

#### **2.4.4 Higher Cost of Renewable Power and Lower Quantum of Concessional Power Purchase**

The Objector submitted that:

- (i) CSPDCL has been purchasing renewable energy at a cost higher than that approved by the Commission;
- (ii) Also that it is getting much lower quantum of concessional power for which any explanation has not been provided. This has caused a burden of approx. Rs.275 cr. during FY 2017-18 to the consumers.
- (iii) the Objector suggested that CSPDCL should act against defaulting IPPs.

#### **Petitioner's Reply**

CSPDCL submitted that purchase of renewable power is under statutory renewable purchase obligation. The power purchase and procurement process are under control of the Commission. Accordingly, PPAs including quantum and rate are approved by the Commission. As regards cost of biomass and solar power, the deviation is due to delayed payment surcharge as well as cess, duty and water charges (applicable to only small hydro). Hence, objection for higher cost of renewable power is not valid.

As regards concessional power, CSPDCL submitted that it has no direct contractual relation with generators as the power is supplied through a back to back purchase agreement with CSPTrdCL. It is gathered that difficulties in availability of primary fuel is among major constraints to run the generator at optimum capacity. In this context, CSPDCL clarifies that contracted power at ex-bus of generator is available for supply to consumers. In view of the above, less availability of concessional power is consequential and has no direct control of CSPDCL.

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

The Commission, after prudence check, observes that the renewable power has been procured from RE sources at tariff determined / adopted by the Commission and also

that the generator has supplied concessional power as per the power purchase agreement, the details of which are given in Chapter 6 of this Order. Therefore, there is no merit in the objections.

#### **2.4.5 Steep and Abnormal Hike in Cost of Power Purchased from CSPGCL**

The Objector submitted that CSPDCL has not submitted station-wise data of power purchase for FY 2017-18 and FY 2018-19. From a comparison between Central Generating Stations and CSPGCL for last 4 years, it is noted that cost of power from Central Generating Stations has increased by only 3%, whereas cost of power from CSPGCL has increased by 38%. The average power purchase cost from CGS Stations is Rs. 2.88/kWh and Rs. 3.13/kWh for FY 2017-18 and FY 2018-19 respectively. However, the average cost of power purchase from CSPGCL is Rs. 3.69/kWh and Rs. 3.49/kWh for FY 2017-18 and FY 2018-19 respectively.

The Objector requested the Commission to conduct a thorough examination of Station-wise Power Purchase Quantum and Cost (Fixed Cost and Energy Charges separately).

#### **Petitioner's Reply**

CSPDCL submitted that it is not correct to state that CSPDCL has not submitted station-wise power purchase quantum and cost for true-up years. It has submitted the power purchase cost in specified format (R4) in its letter no. 2674 dated January 24, 2020. The Objector has compared present cost with true-up values of previous years. CSPDCL has clarified that cost of power purchase from CSPGCL is claimed based on the audited accounts and in accordance with provisions of CSERC MYT Regulations, 2015. Further, the expenses claimed under this Petition are subjected to prudence check by the Commission.

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

The Commission notes that CSPDCL has provided requisite details in the replies to data gaps raised by the Commission. The detailed ruling of the Commission on approval of fixed cost and energy charges for purchase of power from CSPGCL after True-up for FY 2017-18 and FY 2018-19 is given in Chapter 6 of this Order.

#### **2.4.6 Power Purchase from ABVTPP of CSPGCL and subsequent Sale to Telangana State**

The Objector submitted that CSPDCL has tied-up back-to-back sale of power generated by ABVTPP to Telangana State during FY 2017-18. During FY 2017-18, CSPGCL has submitted the net generation of 5342.17 MU; However, sale to Telangana State has been considered as 5421.16 MU. The objector submitted that there is a loss of Rs. 183 cr. in sale of power to Telangana State and the same has been loaded on consumers of CSPDCL. The Objector requested to disallow loading of lower realization of Rs. 183.78 Cr. including approved trading margin of 7 paise/kWh on inter-State sale of power procured from ABVTPP and sold to Telangana State. Further, FCA Charges for ABVTPP were also recovered from retail consumers in FY 2017-18. Though CSPDCL has admitted the mistake, yet, the refund of the same is not given to the consumers.

The Objector also requested to disallow the statutory and other charges relating to ABVTPP such as water charges, CSLDC charges, intra-State Transmission Charges, intra-State Transmission Losses, Start-up Power Charges, P&G Fund Contribution, duty & Cess, if any, and Fuel Cost Adjustment and any adjustment with respect to ABVTPP from the determination of ARR.

#### **Petitioner's Reply**

CSPDCL submitted that the contention of loss of Rs. 183 Cr. on account of sale of power to Telangana State is incorrect. CSPDCL has been supplying power to Telangana State from May 6, 2017. Prior to this, generation from ABVTPP was utilised to supply power to consumers of the Chhattisgarh State. During FY 2017-18, CSPDCL sold 5421 MU of surplus power at average rate of Rs. 4.07/kWh, which amounts to revenue of Rs. 2365.47 Cr. In this sale, 4929.55 MU was sold from ABVTPP at the rate of Rs. 4.41/kWh and 495 MU from other sources at the rate of Rs. 3.90/kWh. From this, it is evident that there is no under realisation, as ABVTPP power costs Rs. 4.39/kWh. Further, water charges and other O&M expenses like contribution to Pension and Gratuity are billed to Telangana State. CSPDCL clarified that it supplies electricity generated from ABVTPP to Telangana State as per terms and conditions of back to back power purchase agreement, which is subjected to final approval of the Appropriate Commission. Further, Clause 6.8 of the PPA obligates the seller to provide electricity from alternate sources to meet aggregate contracted

capacity on annual basis. Accordingly, there are deviations in units received from ABVTPP and subsequent sale to Telangana State. As regards current billing by CSPGCL and subsequent billing by CSPDCL to Telangana, it is strictly as per the approved tariff.

### **Commission's View**

For the purpose of true-up/provisional true-up, the Commission has approved sale of surplus power after due prudence check. The approach adopted by the Commission is detailed in Chapter 6 of this Order.

#### **2.4.7 Sale of surplus power to Other States**

The Objector submitted that during FY 2020-21, the sale of power to other States has been considered at lower rate. CSPDCL has shown power purchase at Rs. 4.04 per unit and sale of surplus power at Rs. 2.58 per unit to other States, which is not viable. Further, agriculture tariff is set at Rs. 4.60 per unit while the sale of power to other States is at Rs. 2.58 per unit, which is not viable. Excess power should be used to provide the same to the farmers at a cheaper rate.

Another Objector submitted that CSPDCL has failed to adhere to directives of the Commission to examine the possibility of optimum utilization of surplus power within the State through appropriate incentive mechanism. CSPDCL, in the current Petition, has estimated that 26% of available power of CSPDCL would be surplus, which may increase further due to lower consumption of HV-4 Steel Industries category compared to estimated sales at a growth rate of 10%. The Objector also submitted that rate of sale of surplus power at Rs. 2.57 /kWh is much lower to the approved value of Rs.3.56/kWh in the Tariff Order, which is causing huge revenue losses and suggested surrendering costly CGS power and move to short-term power purchase.

The Objector further suggested the following methodology to reduce the quantum of surplus power:

- a) Night Tariff may be designed at a fixed tariff of Rs.3.50 per unit for 12 hours.
- b) Retail Consumers may be allowed to consume more power compared to previous year's average consumption at Rs.3.50 per unit.
- c) The present relaxation in Contract Demand at 20% for HV4-Steel Industries during Off-Peak Hours may be increased to 30%.



d) Suitable Load Factor rebate may be introduced for all industrial consumers.

The Objector also submitted to direct CSPDCL to surrender the power from NTPC Mauda, NSPCL, Kakrapar and NTPC Solapur during FY 2020-21. This will lead to reduction in ARR for FY 2020-21 by Rs. 719 Cr.. Also, a suitable mechanism to encourage power consumption within the State should be introduced.

Another Objector submitted that the cost of power purchase from CGS is Rs. 3.64 per unit, whereas the same is Rs. 1.69 per unit for purchase through Power Exchanges. Hence, the power purchase from Power Exchange is much cheaper and the same should be considered to reduce the tariff.

### **Petitioner's Reply**

CSPDCL submitted that the request of the Objector to surrender the power from Central Sector during FY 2020-21 is not correct. The PPAs have been executed in pursuance of capacity allocation by the Union of India to the State Government. The allocation is based on long-term study of Demand and Supply in the State. The surplus power is not available round the clock. It is worth noting that short-term power is required to meet exigencies. CSPDCL submitted that, presently, no surplus exists round the clock. Therefore, the proposal to consume surplus power within the State is not relevant. Further, short-term prices are market driven and cannot be relied upon.

### **Commission's View**

In the present Order, the Commission has considered the surrender of higher cost energy as per economic despatch principles, while estimating the power purchase cost for FY 2020-21. This means that while estimating the power purchase cost, power from sources having higher energy charges is considered as not scheduled on a monthly basis. The approach adopted by the Commission is detailed in Chapter 7 of this Order.

## **2.4.8 Banking of Power**

The Objector submitted that the quantum of banked power, which is not accounted in the same Financial Year, should be treated as stock in hand, and such banked power should be accounted for in the same financial year. CSPDCL should be directed to maintain a 'Power Banking Passbook', having necessary details like banking partner, banked quantum, date and time of banking, effective UI Rates, agreed Date and Time

for Reverse Banking etc. The Objector also requested to make necessary Regulations at the earliest with respect to Banking of Power.

### **Petitioner's Reply**

CSPDCL submitted that it is complying with the directions issued by the Commission in the Tariff Order dated February 28, 2020 regarding banking of power. Accordingly, a separate passbook showing records of all banking transactions in terms of banking availed and returned is maintained on yearly basis. CSPDCL further submitted that no financial transactions take place under banking of power, except that the Open Access charges and Transmission Charges are borne by the receiver.

### **Commission's View**

While undertaking the final true-up for FY 2017-18 and provisional true-up for FY 2018-19, the Commission sought all relevant details of banking of power and approved the quantum of banked power after due prudence check.

#### **2.4.9 Huge Increase in O&M Expenses**

The Objector submitted that O&M Expenses are a controllable factor and any loss on account of over-expenditure should be shared in the ratio of 50:50 between the Licensee and consumers, excluding Employee Cost. CSPDCL in its Petition has submitted that A&G expenses like meter reading and other merchandizing and service contracts and electricity charges to offices and establishments are beyond its control because of certain reasons. Apart from this, CSPDCL has not justified huge increase in O&M expenses, particularly, R&M expenses and A&G expenses. The Objector requested to review the increase in expenses, along with comparable increase in sales, efficiency and cost parameters.

The Objector requested to consider entire A&G expenses and R&M expenses, while deciding sharing of gains/loss as per the existing provisions of CSERC MYT Regulations, 2015. The Objector also requested to disallow unreasonable increase in O&M expenses by Rs.36.68 Cr. over approved value in Tariff Order for FY 2017-18 and by Rs. 122.53 Core over approved value in Tariff Order for FY 2018-19, considering share of loss as 50%. The objector submitted that CSPDCL's plea to consider certain O&M expenses as uncontrollable should be rejected, as CSERC MYT Regulations, 2015 do not allow such relaxation.

### **Petitioner's Reply**

CSPDCL denied the contentions of the Objector and stated that the same do not counter CSPDCL's detailed submissions made at para 5.24 to 5.31 of the Petition for FY 2017-18 and at para 6.17 to 6.24 of the Petition for FY 2018-19. CSPDCL submitted that major services involved engagement of contract labour for operations of 33/11 kV substations, meter reading, bill distribution, secretarial assistance in offices, housekeeping and security guards, because of substantial vacant posts of Class III and IV employees. Had this business been performed by departmental staff, the expenditure would have been booked under employee expenses, which is uncontrollable as per the CSERC MYT Regulations, 2015. Hence, the higher expenditure under A&G expenses and R&M expenses are justified.

### **Commission's View**

The Commission has approved normative O&M expenses as per CSERC MYT Regulations, 2015 and actual O&M expenses based on audited/provisional accounts, after due prudence check. The sharing of gains and losses has been considered in accordance with the provisions of CSERC MYT Regulations, 2015, as amended from time to time. The details are given in Chapter 6 of this Order.

#### **2.4.10 Payment of Pension, Gratuity and other Retirement Benefits by Power Companies**

The Objector submitted that the Commission should approve the contribution to Pension and Gratuity of at least Rs. 56 Cr. per month for FY 2020-21. The Objector also requested to direct the Power Utilities to provide the additional contribution to the Pension Trust, after approval of the Commission in the Tariff Order, without any further delay. The Objector also requested that the deficit in inflow in past two years should be considered as Regulatory Asset and the same should be allowed to be recovered in future years.

### **Petitioner's Reply**

CSPDCL submitted that there is merit in the submission of the Objector to allow excess contribution to Pension and Gratuity Trust by the Companies, considering the present outflow from the Fund being more than the inflow, as it is in line with the request made by Secretary, CSEB, Gratuity and Pension fund Trust to the Management of Power Utilities vide Letter No. 10 dated January 9, 2010.

CSPDCL further submitted that the Trust has raised additional monthly demand by more than Rs. 45 Cr. over and above existing contribution of Rs. 36.81 Cr.. Increase in Terminal Benefits due to recommendations of 7<sup>th</sup> Pay Commission was the main reason considered by Trust to request for additional contribution. The excess outflow has depleted the corpus by more than Rs. 332 Cr. till September 2019.

CSPDCL further submitted that the point raised by Objector may be taken into consideration as it is in line with Regulation 32 of CSERC MYT Regulations, 2015.

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

As per the approach adopted in past Orders, the Commission approves the Contribution to Pension and Gratuity based on the amount approved in the MYT order , irrespective of provision made in the Accounts. The detailed approach is mentioned in Chapter 3 of this Order.

#### **2.4.11 Discrepancy in Non-Tariff Income**

The Objector submitted that the Non-Tariff Income reported in Audited Accounts of FY 2017-18 is much higher than the Non-Tariff Income considered by CSPDCL in its Petition. The Objector has reconciled the same and computed the difference of income as Rs. 267.09 Cr. The Objector requested to consider this income of Rs. 267.09 Cr., as an additional Non-Tariff Income over and above true-up claim of Rs.313.83 Cr.

The Objector also requested to consider the Non-Tariff Income of Rs. 333.41 Cr. for FY 2018-19, equal to value approved in the Tariff Order, instead of Non-Tariff Income of Rs.281.54 Cr. claimed by CSPDCL in the provisional true-up.

#### **Petitioner's Reply**

CSPDCL submitted that the Non-Tariff Income submitted in the Petition is based on the audited/provisional accounts. The revenue from operations is bifurcated under two categories, viz., Revenue from Sale of power and Non-Tariff Income. The portion of revenue not covered under Revenue from Sale of Power is considered under Non-Tariff Income. No portion of revenue is left unconsidered. The claim of Non-Tariff Income is supported by Audited Accounts, which is further subjected to prudence check by the Commission. Further, several disputes related to billing of Cross Subsidy Surcharge and Parallel Operation Charges are sub-judice presently.

### **Commission's View**

While undertaking true-up for FY 2017-18 and provisional true-up for FY 2018-19 for CSPDCL, the Commission sought reconciliation of Non-Tariff Income reported in the audited/provisional accounts vis-à-vis amounts submitted in the Petition. The Commission has approved Non-Tariff Income for FY 2017-18 and FY 2018-19 after due prudence check, based on the reconciliation submitted by CSPDCL. All heads of revenue have been considered. The details are provided in Chapter 6 of this Order.

#### **2.4.12 Revenue from existing tariff**

The Objector submitted that the Average Billing Rate (ABR) estimated by CSPDCL is higher by 50 paise per unit than actual ABR, when it is calculated based on R-15 data. This is resulting in a loss of Rs. 475 Cr. to CSPDCL. Further, the growth estimated in HT category is 16%, which seems unrealistic. The Objector requested the Commission to calculate ABR on the basis of actual R-15 data for more realistic projections.

Another Objector submitted that R-15 format for FY 2017-18 has shown an amount of Rs. 473.71 Cr. as subsidy given by Government for HV4-Steel Industries. However, CSPDCL has not adjusted the same in its True-up Petition for FY 2017-18, which amounts to suppression of revenue received by it. The Objector requested the Commission to adjust the amount of State Government Subsidy given to HV4-Steel Industries while trueing-up for FY 2017-18.

#### **Petitioner's Reply**

CSPDCL submitted that the Objector's contention is not correct. In the present Petition, CSPDCL has submitted the revenue based on Audited Accounts for FY 2017-18 and provisional accounts for FY 2018-19, and not based on R-15. Also, the reconciliation between the revenue reported in R-15, Audited/Provisional Accounts and that considered in the Petition has been submitted to the Commission.

As regards State Government Subsidy for Steel Category, CSPDCL submitted that it has considered a revenue subsidy of Rs. 512.24 Cr. towards rebate provided to Steel Industries by Government of Chhattisgarh. The revenue from sale of power of Rs. 11760.72 Cr. in Table 27 of the Petition includes the aforesaid amount.

### **Commission's View**

While undertaking true-up for FY 2017-18 and provisional true-up for FY 2018-19, the Commission sought reconciliation of revenue from sale of power reported in audited/provisional accounts vis-à-vis amounts submitted in the Petition. The Commission has approved revenue from sale of power for FY 2017-18 and FY 2018-19 after due prudence check. The details are provided in Chapter 6 of this Order.

#### **2.4.13 Suppression of Actual Revenue**

The Objector submitted that the Commission while undertaking provisional true-up for FY 2017-18 has considered the additional revenue of Rs. 351.24 Cr. for Agriculture category. However, CSPDCL has not considered such additional revenue of Rs. 351.24 Cr. in final true-up for FY 2017-18, thereby overstating the Revenue deficit. Based on the same methodology, as adopted by the Commission for FY 2017-18, the Objector has computed the additional revenue of Rs. 372.43 Cr. for FY 2018-19 for Agriculture category.

Further, based on the methodology adopted by the Commission for Agriculture Category, the Objector submitted that CSPDCL has suppressed revenue realization from LV1-Domestic Category including BPL Consumers during FY 2017-18 and FY 2018-19 to the extent of Rs. 234.78 Cr. and Rs. 222.50 Cr., respectively. Similarly, CSPDCL has suppressed revenue realization from Non-Domestic Category of Rs. 47.78 Cr. during FY 2017-18.

The Objector requested to consider additional notional revenue on account of Revenue suppression and non-submission of data, while deciding the true-up.

#### **Petitioner's Reply**

CSPDCL submitted that being a fully owned State Government Company, it is controlled by directions given by the State Government from time to time, according to the Articles of Association, which have overriding effect. CSPDCL submitted that it has effected the flat rate tariff for agriculture category from 2013, in compliance with the directions contained in State Government Notification No. 2131/F-21/08/2009/13/2/UV/KJJY dated September 19, 2013. The billing to Krishak Jivan Jyoti Yojana (KJJY) under LV 3 category has been done as per the terms and conditions of the aforesaid Order. The revenue statements have been regularly placed before the Commission under statutory compliance. Resultantly, the actual billing rate

of LV-3 is less due to impact of KJJY scheme, which may be considered as revenue in respect of LV-3 category for computation of Revenue Gap.

As regards LV1 and LV2 category, CSPDCL submitted that the contentions made regarding revenue suppression are not correct. Merely multiplying sales with approved tariff in a particular slab would defeat the effect of slab-wise billing, wherein net revenue of consumer under highest slab carries effect of tariff applicable to lower slabs too. The categorisation under R-15 is based on the monthly consumption recorded in latest month. All other revenue details about energy charges, demand charges consumption, etc., in respect of such consumer is displayed according to aforesaid categorisation. Also, the Objector has neglected the principle of slab-wise billing and constraints which affect actual billing over assessment. In view of the above, under telescopic principle of billing, actual billing rate indicated in revenue statement is lower than the relevant slab tariff. This is merely indicative and does not have any commercial implications. The bills issued to consumers in these categories are correct and compliant with terms and conditions of the Tariff Order. The Objector has failed to identify a single case of wrong billing or revenue suppression. Hence, the contentions raised by the Objector are not correct and should not be considered for the purpose of true-up.

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

The Commission has undertaken detailed scrutiny of actual revenue earned by CSPDCL for FY 2017-18 and FY 2018-19. As regards the revenue for Domestic and Non-Domestic category, the Commission has analysed R-15 data and found that the submission of CSPDCL is correct. The Commission observes that there is lower revenue realisation from Agriculture Category against Energy Charges. In line with the approach adopted in True-up of previous years, the Commission has considered the notional revenue on account of lower revenue realisation against Energy Charges for Agriculture category for FY 2017-18 and FY 2018-19. The Commission has not considered any notional revenue for Domestic and Commercial Category. The details are provided in Chapter 6 of this Order.

#### **2.4.14 Agriculture tariff**

The Objector submitted that the agriculture consumers are actually being billed on a flat rate tariff and not on the two-part tariff as per Order. The Objector suggested to make the agriculture tariff as a flat rate tariff comprising only energy charges. This

will ensure proper meter reading by the Field Officers and proper recording and accounting of distribution data. Further, the farmers will also be attentive towards energy consumption and over usage of ground water will also be checked and the subsidy can also be tuned from 50% to 80%.

#### **Petitioner's Reply**

CSPDCL submitted that as per the Tariff Policy, the tariff needs to be two-part tariff.

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

The Commission has continued with the tariff approved in the Tariff Order for FY 2019-20. The detailed rationale and philosophy adopted by the Commission is given in Chapter 8 of this Order.

### **2.4.15 Treatment of Railways**

The Objector submitted that being a deemed Distribution Licensee, Railways should be treated at par with CSPDCL. The power sold to Railways should be at the average Power Purchase cost of CSPDCL.

The Objector further requested to maintain a reasonable traction tariff in view of various ongoing projects and development of the Railways in the State. It requested that Railway traction tariff, i.e. HV1, should be maintained at the same level as the present tariff, while the non-traction loads of Railways should be considered in the LV-6 category.

#### **Petitioner's Reply**

As regards consideration of same traction tariff, CSPDCL submitted that determination of tariff for Railway Traction is the prerogative of the Commission and may be considered subject to protection of approved ARR for FY 2020-21.

As regards consideration of non-traction load under LV-6 Public Utility category, CSPDCL submitted that the Commission has framed specific tariff for bulk supply at one point for Railways for load other than traction load. The bifurcation of demand charges and energy charges has commercial implications. The proposal to include non-traction load under Public Utilities category LV-6 may face constraints of simultaneous HV/LV supply in the premises.



### **Commission's View**

The Commission has continued with the tariff approved in the Tariff Order for FY 2019-20. The detailed rationale and philosophy adopted by the Commission is given in Chapter 8 of this Order.

#### **2.4.16 Charitable Hospitals**

The Objector requested for a special category in the tariff with low tariff rates for charitable hospitals, which are working in a non-profit environment. The Objector has cited extracts of Orders of other SERCs giving special consumer category for Charitable Hospitals.

### **Petitioner's Reply**

CSPDCL stated that in the Tariff Schedule, the use of electricity in private hospitals, nursing homes and clinics has been considered as commercial use. The Objector has not produced any solid argument against this. The reference to Orders given by other SERCs should not be considered as these are based on different circumstances. Further, the Commission has reduced the tariff of LV2 category in its Tariff Order dated 28.02.2019. The present billing is being done on the basis of the latest Tariff Order, and decisions cannot be taken on the basis of old rulings of different States under different circumstances.

### **Commission's View**

In the present Order, the Commission has decided that the hospitals run by Charitable Trusts, which avail supply at high voltage level, shall now be covered under HV-6 category, which is having a comparatively lower tariff. The detailed rationale and philosophy adopted by the Commission is given in Chapter 8 of this Order.

#### **2.4.17 Difference in Urban and Rural power supply**

The Objector submitted that urban and rural consumers are treated differently. The rural systems are not up to the mark. CSPDCL is not being penalised for power cuts in rural areas. The urban areas are served better and immediate response is given to the urban consumers, whereas rural consumers face long delays in proper maintenance and system works. The quality of power in rural areas and urban areas is different, where the rural area faces lack of response and infrastructure.

### **Petitioner's Reply**

CSPDCL submitted that the issue is not relevant to the Tariff Petition filed before the Commission.

### **Commission's View**

The Commission is of the view that the issue is not relevant to the present Tariff Petition. However, CSPDCL should make best possible efforts to improve its services in Urban as well as Rural areas and comply with the provisions of Standards of Performance Regulations and Supply Code.

#### **2.4.18 Tariff for Rice Mill**

The Objector submitted that there should be special category for rice mills. The existing categorisation under HV3 category is creating a lot of burden on industries in rural area. The categorisation of agriculture-based industries under HV 3 category results in higher price of electricity. Thus, there should be a subsidised rate of tariff for the rice mills. Further, the rice mill industry is seasonal and payment of Demand Charges in off-season creates addition burden on the consumer.

The Objector further submitted that there is a huge difference in the tariff for rice mills in LV and HV category. The Objector requested that rice mills should be given tariff equal to Agriculture category. A special subsidised rate should be given to the rice mills for development and working.

The Objector further submitted that the penalty for exceeding Contract Demand for 15 minutes is charged for the full month. The Objector requested that penalisation should be as per the usage and on the energy charge and not on the Demand Charges. Also, penalty should be levied only on the excess units consumed.

### **Petitioner's Reply**

CSPDCL stated that the Commission in its Tariff Order dated 15.06.2005 has simplified the consumer categorisation. The Objector has not produced enough reasons to support the claim for creation of new category.

The claim for differentiation in the HV and LV category is also not proper. The Commission, from FY 2016-17, has adopted voltage-wise cost of supply, which includes line losses, in the tariff for the categories and which is currently being followed.

Further, CSPDCL stated that as per the Tariff Policy, the tariff has to be two-part tariff and, hence, the Demand Charges cannot be eliminated. The Demand Charges are levied in order to maintain and ensure proper connection and supply of electricity.

The consumers are given power on the basis of their Contract Demand. The energy charges are linked to the real time usage and which are separate from Demand Charges. Hence, linking the penalty to actual usage would not be appropriate. As regards 15-minute time block billing, as per the billing system of the generator and the Distribution Company, the demand is conveyed to the generator in 15 minutes block one day in advance, as per the norms.

### **Commission's View**

In the present Order, a discount of 5% on Energy Charges has been made applicable for Rice Mills under HV-3 Category. The detailed rationale and philosophy adopted by the Commission is given in Chapter 8 of this Order.

#### **2.4.19 Load Factor Rebate**

The Objector submitted that in the Public Notice issued by the Commission, the Commission has proposed to reduce the Load Factor rebate. This will demoralise the stakeholders and will not lead to development of the sector.

There is differential tariff in HV-4 category for achieving Load Factor. On non-achievement of prescribed Load Factor, due to change in Tariff, huge cost implication is seen in the Induction furnace business. The Objector requested for an average rate for HV-4 category.

Another Objector submitted that the proposed Load Factor rebate framework will create tariff shock of more than Rs. 0.66 per unit and power intensive industry will not survive.

Another Objector submitted that Steel Industries at 132 kV and 220 kV level should also be given differential tariff for load factor >15% and load factor <=15% .

Another Objector submitted that Load Factor rebate is given to Railways and Steel industries to incentivise higher consumption. The Objector requested that the incentive should be applicable for energy consumed beyond cut off load factor. The Commission has proposed the change in calculation for Steel industries and not for Railways, hence, the Objector requested for inclusion of Railways in the same revised formula.

### **Petitioner's Reply**

CSPDCL submitted that it has not submitted any tariff proposal before the Commission. Furthermore, the Commission has statutory powers to determine retail supply tariff which may be considered in light of the provisions of the Act. The Commission has issued a public notice to change the present structure of load factor rebate, which may be considered subject to approved ARR for FY 2020-21 to be protected.

As regards differential tariff for Steel Industries at 132 kV and 220 kV level, CSPDCL submitted that the Load Factor based tariff is a creation after merger of Low Load Factor steel industries in the Tariff Order dated April 30, 2016. Prior to that, specific category existed for steel industries who operated in one shift and availed supply at 33/11 kV. As pre-revised low load factor tariff did not include EHV category of consumers, hence, the same should not be considered.

### **Commission's View**

For the purpose of calculating load factor rebate on energy charges available to 'HV-4: Steel Industries' category, the maximum prescribed load factor has been scaled down from load factor of '77% and above' to load factor of '70% and above'. The detailed approach of the Commission is discussed in Chapter 8 of this Order.

Further, the Commission has not considered any change in the tariff for Steel Industries at 132 kV and 220 kV level.

#### **2.4.20 Tariff for Consumer Categories**

As regards tariff for LV 1 Category, the Objector proposed to increase the consumption slabs to 601-900 units, 901-1200 units and 1200 and above. As regards tariff for LV 2 Category, the Objector requested to include slab of 501-900 units, 901-1200 units and 1200 and above. The Objector further submitted that in case of consumption of the small shops adjacent to the rural household, the whole household should be billed at the same tariff applicable for small business.

The Objector requested for inclusion of Fisheries and Water filling in ponds under LV- 3 Category.

As regards tariff for HV 4 Category, the Objector requested to reduce the tariff for steel plants and normalise with other States to maintain their competitiveness in the

market. The Objector requested for a special night tariff for the steel plant consumers who wish to operate in the night time, as under:

- Applicability- 8 pm to 8 am
- Demand Charges- Reduction by 50% in the night
- TOD off peak charges applicable

As regards tariff for HV 5 Category, the Objector requested to reduce Demand Charges by Rs. 25 and Energy Charges by Rs. 1/kWh, on account of COVID 19 scenario, which has devastated the poultry business.

Further, the Objector submitted that special concession is being given to non-subsidised agriculture pump to a level of 10%. The Objector requested to increase the concession to 20%, which should be included in the billing system of CSPDCL.

Further, the advertisement hoarding lights should be charged highest and special slab should be there for billing of such consumption by advertisement hoardings.

Further, the objector requested not to increase the residential tariff and requested the Commission to form a Committee to compare the residential tariff in the country.

### **Petitioner's Reply**

CSPDCL submitted that it has not proposed any Tariff Schedule in the Tariff Petition. Further, CSPDCL highlighted that according to the Act, the Commission has the power to determine the electricity tariff.

Further, CSPDCL submitted that usage of domestic power in non-domestic or any kind of commercial process is not acceptable under Section 126 of the Act and it is not as per rules.

CSPDCL submitted that as per Clause 2.1 of the Electricity Supply Code, the comment on changing the provision of exceeding Maximum Demand is not acceptable. To solve the problem, the billing cycle has been made minimum 1 month.

CSPDCL submitted that for extra billing of hoarding lights and advertisement, a proper hearing should be initiated on this topic.

Further, as per the Act, the Commission needs to publish the Tariff Order within 120 days of the Tariff Petition. Forming a Committee for comparison of tariff will not allow the Commission to adhere to the timelines. Hence, this suggestion may not be accepted.

As regards the tariff proposal submitted by Objectors, CSPDCL submitted that the Commission has already announced the relief to electricity consumers in order to mitigate the effect of COVID-19 through its Order dated May 1 and 6, 2020. The reliefs are in the form of moratorium on payment of Demand Charges and reduction in delayed payment surcharges of electricity bills payable between April 1, 2020 to June 30, 2020. CSPDCL further submitted that as per Section 62 of the Act, it is the Commission's prerogative to determine retail supply tariff according to differentiation allowed in sub-section (3) of Section 62 of the Act. The Commission may consider the tariff proposals subject to protection of its approved ARR for FY 2020-21.

### **Commission's View**

The Commission has continued with the tariff approved in the Tariff Order for FY 2019-20. The detailed rationale and philosophy adopted by the Commission is given in Chapter 8 of this Order.

Further, the Commission has already announced relief measures for electricity consumers in light of COVID-19 through its Order in suo-motu Petition No. 46 and 47 of 2020.

#### **2.4.21 Standby Demand Charges and Penalty for exceeding Contract Demand**

The Objector submitted that for consumers having Captive Power Plant, additional Demand Charges of Rs. 20/kVA/month should be payable only on the extent of the standby demand component and not on the entire Contract Demand. The additional Demand Charges should be levied on the Standby component only if the consumer's demand exceeds its Contract Demand.

Further, the Objector requested that if a consumer exceeds his Contract Demand, he will be billed at the applicable Demand Charge rate for the demand actually recorded and also be charged an additional amount and no extra charges for the excess demand.

Another Objector submitted that the limit of 20% for exceeding Contract Demand during off peak period should be increased to 30% to utilise the surplus power that has been shown in CSPDCL Petition.

### **Petitioner's Reply**

CSPDCL submitted that the Objector's proposal is objectionable in light of the commercial understanding of Contract Demand between the Licensee and the

consumer. The Contract Demand has commercial significance and Demand Charges are billed at 75% of Contract Demand to recover network expenses. The usage over and above Contract Demand is stipulated as unauthorised use and accordingly additional billing in terms of excess supply is applicable.

The contentions regarding imposing penalty for exceeding Contract Demand are incorrect because the Tariff Order provides additional charges towards usage of electricity over and above Contract Demand. The request to delink energy charges from excess supply billing is against the fundamental principle of electricity, wherein energy is consequence of demand. The real time utilization of electricity load stated by consumer under Contract Demand is measured in terms of energy and therefore delinking it would attract commercial consequences.

As regards the enhancement of limit of 20% for exceeding contract demand during off-peak hours, CSPDCL submitted that the contentions of the Objector are based on the assumption that CSPDCL has surplus of around 150-300 MW during off-peak hours. CSPDCL clarified that the supply to consumer requires availability of surplus on RTC basis. Further, utilisation of Contract Demand from existing limit of 120% to 130% requires technical consideration and examination of distribution network on case-to case basis. Hence, it would be difficult to operate.

### **Commission's View**

In the present Order, the Commission has decided that in case of excess supply to consumers (other than of HV-7 tariff category) having minimum Contract Demand of 150 MVA, and having captive generating plant(s) of capacity of at least 150 MW, such consumers shall have to pay additional Demand Charges of Rs. 20/kVA/month on the quantum of power availed over and above their Contract Demand notwithstanding anything contained anywhere in this Order. Further, energy consumed corresponding to excess supply shall be billed at normal tariff. This provision is intended to remove the difficulties being faced by such consumers in the event of outage of their Captive Generating Plant (CGP).

The detailed rationale and philosophy adopted by the Commission is given in Chapter 8 of this Order.

#### **2.4.22 Rebate on high voltage**

The Objector requested that a special rebate should be given for the consumers getting supply at high voltage, i.e., 400/220/132 kV. The Objector also requested to reduce the cross-subsidy charges as the cross-subsidy charges are increasing every year.

Another Objector requested for reduction in the tariff differential in HV4 category between the 33 kV and 132 kV consumers. The Objector highlighted that this differentiation is creating disadvantage for the small players and making the market less competitive.

Another Objector requested to reduce the tariff of 132 kV by 60 paise/unit so that many consumers of the steel industry can shift to 132 kV connection, which will in turn increase the revenue of the Distribution Company.

#### **Petitioner's Reply**

CSPDCL submitted that the objector has not explained as to which rebate allowed to other consumers is not being allowed to consumers taking supply at high voltage. Further, the rebates allowed under Tariff Order to industry consumers in terms of load factor, etc., applies to all consumers irrespective of the supply voltage. Further, cross-subsidy surcharges is among the component of retail supply tariff which falls under Non-Tariff Income of the Distribution Licensee. It is prerogative of the Commission to determine tariff, hence, the Petitioner in the capacity of Distribution Licensee requests to consider reduction in Cross-Subsidy Surcharge subject to protection of its approved ARR for FY 2020-21.

The rationalization of retail supply tariff on voltage basis has already been done by the Commission in its Order dated April 30, 2016, which is continued thereafter.

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

The Commission has continued with the tariff approved in the Tariff Order for FY 2019-20. The detailed rationale and philosophy adopted by the Commission is given in Chapter 8 of this Order.

#### **2.4.23 Incentive for prompt and advance payment**

The Objector requested for rebate or incentive on prompt and advance payments made by non-residential consumers.



### **Petitioner's Reply**

CSPDCL submitted that as per Clause 10.11 of the Electricity Supply Code, the advance payment should be declared and prior information should be given to the Distribution Licensee.

### **Commission's View**

The Commission has continued with the tariff approved in the Tariff Order for FY 2019-20. The detailed rationale and philosophy adopted by the Commission is given in Chapter 8 of this Order.

#### **2.4.24 Multiple Distribution Licensees**

The Objector highlighted that in the State, there are two different Distribution Licensees, i.e., CSPDCL and JSP Raigarh, who are having different tariff. There is massive difference in cost of power in these two areas. The average rate of power in JSP, Raigarh area is Rs. 4.34 per unit. However, the same is Rs. 5.37 per unit in CSPDCL area. Because of this difference, the competitiveness and viability of steel plants located in these two areas are affected. The Objector submitted to ensure the reduction in gap between cost of power in these two areas.

### **Petitioner's Reply**

CSPDCL submitted that the objector has compared CSPDCL tariff with prevailing tariff applicable in area of supply of Jindal Park, Raigarh. The consumer tariff at Jindal Park is the outcome of Judgment delivered by the Hon'ble High Court of Chhattisgarh and hence, cannot be compared with tariff of CSPDCL's consumers. The tariff of consumers of CSPDCL is determined by the Commission according to relevant provisions of the Act after observance of due process established by law. Furthermore, retail supply tariff to steel industries is in line with the provision of Tariff Policy wherein consumer tariff is required to be within limits of +/- 20% of average cost of supply.

### **Commission's View**

The Commission agrees with the CSPDCL's reply. Moreover, the matter related to tariff to retail tariff of consumers of Jindal Industrial Park is subjudiced before the appellate authorities.

#### **2.4.25 Non-Compliance of directives**

The Objector submitted that CSPDCL has not submitted any kind of status report towards compliance of directives issued by the Commission and requested the Commission to take stern action for such non-compliance and to direct them for immediate compliance without giving more time.

##### **Petitioner's Reply**

CSPDCL submitted that the Commission conducts quarterly review on directions passed in the Tariff Order. During such review, no adverse directives were passed by the Commission in respect of directives issued in the Tariff Order for FY 2019-20.

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

The Commission has initiated a suo-motu petition regarding this issue.

#### **2.4.26 Excess electricity charge in Ravi Bhavan**

The Objector submitted that in Ravi Bhavan complex, the rate of electricity being charged is more than the tariff rate and it is not falling in any slab stipulated in the Tariff Order.

##### **Petitioner's Reply**

CSPDCL submitted that this is not a matter of tariff determination, and the objector should approach the right authority for solution in the matter.

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

The Commission has initiated a suo-motu petition regarding this issue.

#### **2.4.27 Energy loss and voltage wise cost of supply**

The Objector submitted that as per the present CSPDCL Petition, 33 kV energy losses are 4.85%, as against 6% as per Tariff Schedule of CSPDCL. This difference in number is causing confusion amongst consumers.

The Objector further submitted that the Hon'ble APTEL, vide its Judgment dated May 30, 2011 in Appeal No. 102 of 2010, stipulated the guidelines for cost of supply calculations. These guidelines are given due to non-availability of adequate data at that period of time. CSPDCL is applying the same method for calculation of cost of supply without considering the development in metering network and availability of actual voltage-wise losses.

**Petitioner's Reply**

CSPDCL submitted that distribution loss of 6% are not applicable for billing to the Objector as it is supplied at EHV level. The loss of 6% is applicable to Open Access Consumers, when the utilisation of electricity is at voltage of 11 kV or lower.

CSPDCL further submitted that the directives of Hon'ble APTEL have already been considered by the Commission on Page No. 297 of the Order dated April 30, 2016 and retail supply tariff has been rationalised accordingly.

**Commission's View**

The approach of the Commission regarding determination of Voltage-wise cost of supply is given in Chapter 8 of this Order.

### 3 FINAL TRUE-UP FOR FY 2017-18 AND FY 2018-19 FOR CSPGCL

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#### 3.1 Background

The Commission notified the CSERC MYT Regulations, 2015 for the third MYT Control Period from FY 2016-17 to FY 2020-21 on September 9, 2015. Subsequently, the Commission notified the first amendment to CSERC MYT Regulations on June 16, 2017. The Commission issued the MYT order on April 30, 2016 approving the ARR of existing Generating Stations viz. HTPS, KTPS (East), DSPM TPS, 500 MW Korba West TPP, and Hasdeo Bango Hydro power plant of CSPGCL for the control period from FY 2016-17 to FY 2020-21. Further, the Commission vide its order dated July 7, 2018 had approved ARR and generation tariff of ABVTPP for MYT Control Period.

Subsequently, in the tariff order dated February 28, 2019, the Commission undertook provisional true-up for FY 2017-18 for existing generating stations of CSPGCL based on provisional accounts for FY 2017-18. Now, based on audited accounts. CSPGCL has filed this petition for final true-up of FY 2017-18 and FY 2018-19 for its existing thermal generating stations, viz., HTPS, KTPS (East), DSPM TPS, 500 MW Korba West TPP, Hasdeo Bango Hydro power plant and ABVTPP, Regulation 10.4 of the CSERC MYT Regulations, 2015 specifies as under:

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

- (a) A comparison of the audited performance of the applicant for the previous financial year(s) with the approved forecast of such previous financial year(s), subject to the prudence check including pass-through of impact of uncontrollable factors;*
- (b) Review of compliance with directives issued by the Commission from time to time;*
- (c) Other relevant details, if any.”*

In accordance with the above Regulation, the Commission, in the present order, has undertaken final true-up of ARR for FY 2017-18 and FY 2018-19 on the basis of audited accounts as submitted by CSPGCL.

In this chapter, the Commission has analysed all the elements of actual expenditure and revenue of CSPGCL for FY 2017-18 and FY 2018-19 and undertaken the final

true-up of expenses and revenue in accordance with Regulation 10 of the CSERC MYT Regulations, 2015. The Commission has approved the sharing of gains and losses on account of controllable factors between CSPGCL and its beneficiaries, in accordance with Regulation 13 of the CSERC MYT Regulations, 2015.

### 3.2 Generation Capacity of Existing Generating Stations

The details of the existing generating stations are shown in the following Table:

**Table 3-1: Generation Capacity (MW) of existing Generating Stations**

Sr. No.	Particulars	No. of Units & Capacity (MW)
1	Korba East Thermal Power Station (KTPS)	387.53 MW*
2	Hasdeo Thermal Power Station (HTPS)	4x210 = 840 MW
3	1x500 MW Korba West Thermal Power Plant (KWTPP)	1x500 MW=500 MW
4	Dr. Shyama Prasad Mukherjee Thermal Power Station (DSPM)	2x250=500 MW
5	Mini Mata Hasdeo Bango Hydro Electric Project	3x40=120 MW
6	Atal Bihari Vajpayee Thermal Power Station (ABVTPP), Janjgir Champa	2x500 = 1000 MW

\*Average capacity during FY 2017-18 due to retirement of 50 MW units. During FY 2018-19 it was 285.75 MW.

### 3.3 Normative Annual Plant Availability Factor (NAPAF)

#### CSPGCL's submission

The actual PAF for its stations for FY 2017-18 and FY 2018-19 is as shown in the Table below:

**Table 3-2: Actual Plant Availability Factor for FY 2017-18 and FY 2018-19 as submitted by CSPGCL**

Station	FY 2017-18	FY 2018-19
KTPS	51.82%	61.07%
HTPS	75.49%	76.45%
DSPM	96.30%	92.62%
KWTPP	92.10%	92.24%
ABVTPP	65.31%	73.06%

As regards KTPS, CSPGCL submitted that all the figures submitted are considered on the basis of actual retirement of units.

As regards HTPS, the Commission while approving normative parameters has considered the outage of the plant for installing ESP and other capital works. Accordingly, norms on PAF and specific oil consumption were relaxed for two years to 74.38% and 0.8 ml/ kWh. Keeping all factors in consideration, instead of taking two units on outage during one year, CSPGCL has taken up ESP work on one unit. The policy proved to be advantageous for all stakeholders. CSPGCL prayed that the relaxation allowed may be reduced to half but extended to double of the years. Thus, without any additional relaxation, just the relaxation granted may be spread to four years instead of two years. In the previous true up, the Commission has allowed the same and approved normative PAF of 78.69% and specific oil consumption of 0.9 ml/ kWh for FY 2017-18. The same has been continued for FY 2018-19.

As regards DSPM and KWTPP, CSPGCL submitted that it has achieved availability as per targets specified by the Commission.

As regards ABVTPP, CSPGCL submitted that, the Commission has approved relaxed PAF for FY 2017-18 during provisional true-up. The normative values were allowed by the Commission after detail deliberation and verification of documents. The same has been relied for the purpose of final true-up. For FY 2018-19, the normative PAF has been submitted as per Order dated July 7, 2018.

### **Commission's View**

The actual availability of the generating stations for FY 2017-18 and FY 2018-19 supported by CSLDC's certificate as submitted by CSPGCL has been examined. The Commission has considered the actual availability as per CSLDC's certificate for both years for undertaking sharing of gains and losses.

As regards to KTPS, the Commission approves NAPAF for FY 2017-18 and FY 2018-19 as 66.19% and 69.50% respectively as per the principle approved in MYT Order.

As regards DSPM, the Commission approves the NAPAF of 85% as per the MYT order for the purpose of final true-up for FY 2017-18 and FY 2018-19.

As regards HTPS, the commission in the provisional true up of FY 2017-18 approved NAPAF of 78.69%. The methodology adopted by the Commission is given in the following para:

*“In the MYT Order normative availability of 74.38% was approved for HTPS considering the ESP augmentation of both units. However, the Commission observes that CSPGCL has started ESP augmentation work in FY 2017-18 for Unit 1. CSPGCL further clarified that delay in ESP augmentation has not made any adverse impact on any of the performance parameters prescribed by the Commission and cost parameters. As the outage of unit lead to deterioration of performance parameters, with outage of only one unit instead of simultaneous outage / part loading of two units, led to lesser cost of generation. Also, Auxiliary consumption (in absolute terms) does not get reduced linearly with the generation, with sequential outage of units the loss due to degradation of AEC is lower than the simultaneous outage of two units. It has to be noted that relaxation of 8.62% (i.e., 83% - 74.38%) has been allowed in MYT Order on account of outage of both units. Hence, since outage is for one unit, by applying the same principle, the relaxation of 4.31% is allowed as adopted in MYT Order. Accordingly, the Commission approves NAPAF of 78.69% for HTPS for FY 2017-18. In view of this, the Commission approves NAPAF of 85% for KWTPP for FY 2017-18.”*

In view of the above, the Commission observes that ESP augmentation plan has been changed. In MYT order, CSPGCL sought approval of outage of two units simultaneously for two years. Now, CSPGCL has taken outage of one unit at a time and thus for four years for units. The Commission accords the approval for change in ESP augmentation plan and accordingly revised NAPAF as discussed in earlier para. Accordingly, the Commission approves NAPAF of 78.69% for FY 2017-18 and FY 2018-19 after final true-up. The same NAPAF would continue for FY 2020-21 too.

As regards to KWTPP, as one unit of HTPS was in outage during year, the unutilized coal of HTPS was utilised in KWTPP, resulting in higher actual availability of KWTPP as compared to normative parameter. In view of this, the Commission approves NAPAF of 85% for KWTPP for FY 2017-18 and FY 2018-19.

As regards to ABVTPP, in the order dated July 7, 2018 the Commission has approved NAPAF of 76.50% for MYT control period. Further, the while undertaking the provisional true-up for FY 2017-18, NAPAF of 69.47% was approved. The relevant para is as under:

*“Regarding the coal shortage for CSPGCL, the Commission sought copies of all documentary evidences mentioned by CSPGCL. CSPGCL submitted the copy of the minutes of the high-level meeting dated August 29, 2016. The meeting has resulted*

*in improvement of coal supplies. The average coal supply during the remaining months of FY 2016-17 was approximately double than the average supplies received during the prior period. However, still, the coal receipt was less than the required / committed quantity. It underlines the limitation on coal front due to multiple constraints ranging from coal availability at SECL end to logistic problems at Railways end.*

*Further, the Commission has gone through copy of office memorandum. In this regard, CSPGCL submitted that under the Bridge Linkage, there is no minimum assured quantity and there would be no Fuel supply Agreement, only MOU would be entered with no penalties for lower supplies. Coal will be supplied on „best effort basis" after meeting existing liabilities. Agreed Requirement of Coal needs to be calculated at 90% of the normative requirement of the plant at 85% PLF. The quantification would be certified by Coal controller. The best effort would be limited to supply of 75% of „Agreed requirement of Coal". Thus, effectively the supply under Best effort Basis MOU is limited to coal requirement of the plant at 57.375%. The coal availability is matter of government policy. The coal shortfall has arisen as a result of the decision of Hon'ble Supreme court on coal block allocation and consequently the previously entered FSA got scrapped. This is a situation of „Change in Law", uncontrollable for CSPGCL.*

*Further, regarding the assured contracted quantity of coal for ABVTPP, CSPGCL submitted that there is no assured contracted quantity. The Government of India Policy, do not permit Coal India to enter into any such contract. Only MOU on best effort basis is permissible and same has been entered into in July 2016. CSPGCL submitted the copy of MoU and coal receipts.*

*The Commission observes that there is shortage of coal for ABVTPP during FY 2016-17 and FY 2017-18. The Commission observes that there is possibility of arranging the coal from alternate source for operation of ABVTPP. In this regard, CSPGCL submitted that coal from other sources has two severe bottlenecks. The shortage was most severe in FY 2016-17, as it was the first year after the Office Memorandum and the cancellation of coal mines. Any attempt to import coal / purchasing of coal through e-auction takes minimum six months to fructify due to procedural and logistic arrangement for coal transport etc. State of Chhattisgarh is a land locked State hence import becomes much costlier and transportation also becomes difficult. The most important aspect is the prohibitive costing. At a rough estimate the ECR becomes more than double and the power becomes unviable. Also, in the year FY 2016-17 itself, SECL under the FSA (i.e. at the notified rates) supplied some coal from its Surakachar coal and that resulted in significant rise in FCA / VCA for KTPS. All stakeholders expressed severe concern and Coal India had to be pursued for avoiding dispatches of such high cost coal. Therefore, arranging coal from other sources is not a commercially beneficial option. Efforts are being made to get more coal from the existing arrangement and the coal availability is continuously improving year by year.*



*Further, the Commission notes that arrangement of fuel is primary responsibility of generating company. However, after perusal of documents of Bridge linkage and other documents submitted by CSPGCL, there appears to be some merit in submission of CSPGCL regarding the relaxation of PAF for ABVTPP. The Commission in its Order dated July 7, 2018 has already acknowledged the fact for shortage of coal and approved NAPAF of 76.5%, which is 90% of normative availability. The reasons stated by the CSPGCL appear to be not under the control of the Generating Company. Therefore, being special and exceptional circumstances, the Commission in exercise of its powers to relax under Regulation 83 of MYT Regulations, 2015, revises the normative PAF to 57.38% for FY 2016-17 and 69.47% for FY 2017-18. The Commission further clarifies that this relaxation has been allowed as special case and the same shall not be considered as precedence for other matters. The consequences of performance below this level shall be treated in accordance with the applicable Regulations.”*

From the above, the Commission notes that it has approved NAPAF of 69.47% for FY 2017-18 for ABVTPP, after due prudence check and the same has been elaborated in the above paras. Further, the CSPGCL has not sought any relaxation for NAPAF for FY 2018-19. In view of the above, the Commission approves NAPAF of 69.47% for FY 2017-18 and 76.50% for FY 2018-19 for ABVTPP.

The actual PAF have been verified from SLDC statements submitted by CSPGCL.

The NAPAF and actual PAF approved by the Commission for final true-up of FY 2017-18 and FY 2018-19 is shown in the following Table:

**Table 3-3: Approved Plant Availability Factor for FY 2017-18 and FY 2018-19**

Station	FY 2017-18		FY 2018-19	
	NAPAF	Actual PAF	NAPAF	Actual PAF
KTPS	66.19%	51.82%	69.50%	61.07%
HTPS	78.69%	75.49%	78.69%	76.45%
DSPM	85.00%	96.30%	85.00%	92.62%
KWTPP	85.00%	92.10%	85.00%	92.24%
ABVTPP	69.47%	65.31%	76.50%	73.06%

### 3.4 Auxiliary Energy Consumption

#### CSPGCL's Submission

CSPGCL has submitted the actual Auxiliary Energy Consumption for its stations for FY 2017-18 and FY 2018-19, as shown in the following Table:

**Table 3-4: Auxiliary Energy Consumption for FY 2017-18 and FY 2018-19 as submitted by CSPGCL**

Station	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Submission	MYT Order	CSPGCL's Submission
KTPS	11.25%	13.23%	11.25%	12.65%
HTPS	9.70%	9.90%	9.70%	9.43%
DSPM	9.00%	7.92%	9.00%	7.98%
HBPS	1.00%	0.40%	1.00%	0.32%
KWTTP	5.25%	4.41%	5.25%	4.85%
ABVTPP	5.25%	6.61%	5.25%	5.65%

CSPGCL submitted that, during FY 2017-18, all its stations performed better than the norms specified except KTPS, HTPS and ABVTPP. The auxiliary consumption for FY 2017-18 is considered at same level as approved in provisional true-up. Also, during FY 2018-19, all its stations performed better than the norms specified except KTPS and ABVTPP.

#### Commission's View

In this order norms of AEC for trueing up have been approved as per MYT Order.

For the purpose of sharing of efficiency gains and losses the actual Auxiliary Energy Consumption for FY 2017-18 and FY 2018-19 has been considered as submitted by CSPGCL. Further, the normative AEC for FY 2017-18 and FY 2018-19 has been considered for computation of normative net generation, as shown in the Table below:

**Table 3-5: Approved Auxiliary Energy Consumption for FY 2017-18 and FY 2018-19**

Station	FY 2017-18			FY 2018-19		
	MYT Order	Actual	Normative approved	MYT Order	Actual	Normative approved
KTPS	11.25%	13.23%	11.25%	11.25%	12.65%	11.25%
HTPS	9.70%	9.90%	9.70%	9.70%	9.43%	9.70%
DSPM	9.00%	7.92%	9.00%	9.00%	7.98%	9.00%
HBPS	1.00%	0.40%	1.00%	1.00%	0.32%	1.00%
KWTPP	5.25%	4.41%	5.25%	5.25%	4.85%	5.25%
ABVTPP	5.25%	6.61%	5.25%	5.25%	5.65%	5.25%

### 3.5 Gross Generation and Net Generation

#### CSPGCL's Submission

CSPGCL submitted the actual gross generation and net generation for FY 2017-18 and FY 2018-19 as shown in the Table below:

**Table 3-6: Actual Gross Generation and Net Generation for FY 2017-18 and FY 2018-19 as submitted by CSPGCL (MU)**

Station	FY 2017-18		FY 2018-19	
	Gross Generation	Net Generation	Gross Generation	Net Generation
KTPS	1,787.79	1,551.30	1,543.37	1,348.09
HTPS	5,297.57	4,773.37	5,478.74	4,961.96
DSPM	4,043.00	3,722.87	3,828.14	3,522.74
HBPS	216.87	216.00	241.09	240.32
KWTPP	3,986.07	3,810.45	4,009.98	3,815.49
ABVTPP	5,719.99	5,342.17	6,417.27	6,054.70
<b>Total</b>	<b>21,051.29</b>	<b>19,416.16</b>	<b>21,518.59</b>	<b>19,943.30</b>

#### Commission's View

The billing mechanism has been changed from October 2014 where in three-part ABT billing is done based on declared capacity and corresponding scheduled energy and the deviations from the schedule are governed through deviation settlement mechanism. The above figures submitted by CSPGCL are the actual generation and not the scheduled generation. For the purpose of sharing of efficiency gains and losses the Commission has duly verified the monthly statements submitted by CSPGCL. The actual gross generation and net generation is based on actual metered data and the

normative gross generation and net generation has been arrived based on normative figures approved in the Tariff Order which is as shown in the Table below:

**Table 3-7: Approved Gross Generation and Net Generation for FY 2017-18 (MU)**

Station	FY 2017-18			
	Normative		Actual	
	Gross Generation	Net Generation	Gross Generation	Net Generation
KTPS	2,247.12	1,994.32	1,787.79	1,551.30
HTPS	5,790.32	5,228.66	5,297.57	4,773.37
DSPM	3,723.00	3,387.93	4,043.00	3,722.87
HBPS	274.00	271.26	216.87	216.00
KWTPP	3,723.00	3,527.54	3,986.07	3,810.45
ABVTPP	6,085.94	5,766.41	5,719.99	5,342.17
<b>Total</b>	<b>21,843.38</b>	<b>20,176.12</b>	<b>21,051.29</b>	<b>19,416.16</b>

**Table 3-8: Approved Gross Generation and Net Generation for FY 2018-19 (MU)**

Station	FY 2018-19			
	Normative		Actual	
	Gross Generation	Net Generation	Gross Generation	Net Generation
KTPS	1,537.38	1,364.42	1,543.37	1,348.09
HTPS	5,790.32	5,228.66	5,478.74	4,961.96
DSPM	3,723.00	3,387.93	3,828.14	3,522.74
HBPS	274.00	271.26	241.09	240.32
KWTPP	3,723.00	3,527.54	4,009.98	3,815.49
ABVTPP	6,701.40	6,349.48	6,417.27	6,054.70
<b>Total</b>	<b>21,749.10</b>	<b>20,129.29</b>	<b>21,518.59</b>	<b>19,943.30</b>

### 3.6 Gross Station Heat Rate

#### CSPGCL's Submission

CSPGCL submitted the actual Gross Station Heat Rate (GSHR) for FY 2017-18 and FY 2018-19 for existing generating stations as shown in the following Table:

**Table 3-9: GSHR for FY 2017-18 and FY 2018-19 (kcal/kWh)**

Station	FY 2017-18	FY 2018-19
KTPS	3047	3040
HTPS	2655	2587
DSPM	2434	2413
KWTPP	2398	2384
ABVTPP	2385	2369

CSPGCL submitted that DSPM and KTPS performed as per norms and achieved the targets. The SHR target was not achieved for HTPS on the account of ESP augmentation work.

### **Commission's View**

As regards GSHR of ABVTPP, the Commission in its order dated July 7, 2018 has approved GSHR of 2378.42 kcal/kWh, which is based on design heat rate and as per the provisions of Tariff Regulations. The Commission has considered the same GSHR for the purpose of final true-up for FY 2017-18 and FY 2018-19.

After due verification, the actual GSHR for FY 2017-18 and FY 2018-19 has been considered as submitted by CSPGCL for the computation of actual Fuel Cost and the normative GSHR has been considered for computation of normative Fuel Cost. GSHR for thermal power stations as approved by the Commission for FY 2017-18 and FY 2018-19 are shown in the following Table:

**Table 3-10: Approved GSHR for FY 2017-18 and FY 2018-19 (kcal/kWh)**

Station	FY 2017-18		FY 2018-19	
	Normative	Actual	Normative	Actual
KTPS	3,110	3,047	3,110	3,040
HTPS	2,650	2,655	2,650	2,587
DSPM	2,500	2,434	2,500	2,413
KWTPP	2,375	2,398	2,375	2,384
ABVTPP	2,378	2,385	2,378	2,369

## **3.7 Secondary Fuel Oil Consumption**

### **CSPGCL's Submission**

CSPGCL has submitted the actual Secondary Fuel Oil Consumption (SFOC) for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 3-11: SFOC submitted by CSPGCL for FY 2017-18 and FY 2018-19 (ml/kWh)**

Station	FY 2017-18		FY 2018-19	
	MYT Order	Actual	MYT Order	Actual
KTPS	2.00	1.60	2.00	1.52
HTPS*	0.90	0.60	0.90	0.39
DSPM	0.50	0.21	0.50	0.24
KWTPP	0.50	0.18	0.50	0.29
ABVTPP	0.50	0.82	0.50	0.83

\* The HTPS revised normative values are as per order dated 28.02.2019.

### Commission's View

The Commission in MYT Order has approved SFOC of 1.0 ml/kWh for HTPS as against SFOC norm of 0.8 ml/kWh as specified in the CSERC MYT Regulations, 2015. In the provisional true up order, the norms were revised based on ESP augmentation works. For the purpose of final true-up, the Commission approves SFOC norms of 0.90 ml/kWh as approved in previous order. The same shall be applicable for FY 20-21 also.

Further, the Commission observes that all generating stations except ABVTPP has achieved norms of SFOC. For the purpose of sharing of efficiency gains/losses, actual SFOC has been considered vis-a-vis normative SFOC for computation of normative fuel cost, as shown in the Table below:

**Table 3-12: Approved SFOC submitted for FY 2016-17 and FY 2017-18 (ml/kWh)**

Station	FY 2017-18		FY 2018-19	
	Normative	Actual	Normative	Actual
KTPS	2.00	1.60	2.00	1.52
HTPS	0.90	0.60	0.90	0.39
DSPM	0.50	0.21	0.50	0.24
KWTPP	0.50	0.18	0.50	0.29
ABVTPP	0.50	0.82	0.50	0.83

## 3.8 Transit Loss

### CSPGCL's Submission

CSPGCL has submitted the actual transit loss as shown in the following Table:

**Table 3-13: Transit loss as submitted by CSPGCL for FY 2017-18 and FY 2018-19**

Station	FY 2017-18	FY 2018-19
KTPS	1.15%	1.14%
HTPS	0.19%	0.18%
DSPM	0.13%	0.12%
KWTPP	0.19%	0.18%
ABVTPP	0.23%	0.34%

**Commission's View**

Based on documents submitted by CSPGCL the Commission duly verified the actual transit loss with monthly coal quantum received. The actual transit loss for FY 2017-18 and FY 2018-19 has been considered as submitted by CSPGCL for the purpose of sharing of efficiency gains and losses. Accordingly, the normative transit loss for FY 2017-18 and FY 2018-19 has been considered for computation of normative fuel cost, as shown in the Table below:

**Table 3-14: Approved Transit loss for FY 2017-18 and FY 2018-19**

Station	FY 2017-18		FY 2018-19	
	Normative	Actual	Normative	Actual
KTPS	1.15%	1.15%	1.15%	1.14%
HTPS	0.20%	0.19%	0.20%	0.18%
DSPM	0.20%	0.13%	0.20%	0.12%
KWTPP	0.20%	0.19%	0.20%	0.18%
ABVTPP	0.80%	0.23%	0.80%	0.34%

**3.9 Calorific Value and Price of Fuel****CSPGCL's Submission**

CSPGCL submitted the actual calorific value and price of fuels for FY 2017-18 and FY 2018-19, as shown in the following Table:

**Table 3-15: Actual Calorific Value and Price of fuels for FY 2017-18 and FY 2018-19**

Station	FY 2017-18				FY 2018-19			
	Coal		Secondary Fuel		Coal		Secondary Fuel	
	Calorific Value (kcal/kg)	Actual Price of Fuel (Rs. /MT)	Calorific Value (kcal/kL)	Actual Price of Fuel (Rs. /kL)	Calorific Value (kcal/kg)	Actual Price of Fuel (Rs. /MT)	Calorific Value (kcal/kL)	Actual Price of Fuel (Rs. /kL)
KTPS	3,134.00	1,639.90	10,000	36,291.40	3,092.97	1,858.43	10,000	47,640.89
HTPS	3,494.09	1,729.72	10,000	45,699.44	3,555.33	1,841.26	10,000	55,104.14
DSPM	3,857.77	1,959.35	10,000	48,687.93	3,745.06	2,081.98	10,000	60,752.56
KWTPP	3,493.65	1,729.72	10,000	45,699.00	3,559.75	1,841.26	10,000	55,104.14
ABVTPP	3,659.13	2,122.32	10,000	53,194.00	3,614.52	2,299.98	10,000	47,808.00

**Commission's View**

As per information available, common facility is used for transportation of coal for HTPS and KWTPP. In view of this the Commission sought clarification from CSPGCL regarding methodology adopted/process followed for allocation of coal to these power plants during FY 2017-18 and FY 2018-19. CSPGCL clarified that the methodology adopted is same as settled by the Commission in previous year true-up order. Accordingly, landed price of coal has been considered on integrated basis and the same rate has been used for computation of fuel cost for both the plants. The Commission accepts the submission of CSPGCL and accordingly considers the landed price of coal for HTPS and KWTPP.

The Commission observes that, during the period under true up, third party sampling of coal has started. The third party sampling is being done by Central Institute of Mining and Fuel Research (CIMFER), a constituent laboratory under the aegis of Council of Scientific and Industrial Research (CSIR), New Delhi which aims to provide R&D inputs for the entire coal-energy chain encompassing exploration, mining and utilization. The third party sampling at loading end on behalf of the power plant and the coal companies, is being done in accordance to the Guideline No 23011/48/2013-CPD dated 26<sup>th</sup> November 2015 issued by the Ministry of Coal, Government of India. As per the guideline the fee shall be equally borne by both the parties. Consequent to the guidelines and SOP, a supplementary agreement has been signed between SECL, CSPGCL and CIMFER. As per settled position, the Government guidelines qualify as Change in Law and as per Regulations the impact of Change in Law is a pass through. The third-party sampling has started since FY 2017-18. As such the cost of third-party sampling has been included in the cost of



Coal. For timely pass through of such cost through FCA, minor modification in the FCA format is allowed and the revised formats are annexed to the order.

Further, the Commission sought details of fuel quantum received, calorific value of fuel and landed price of fuel on monthly basis for FY 2017-18 and FY 2018-19. The details submitted by CSPGCL has been duly verified. The detailed analysis was also done for FY 2017-18 during provisional truing up order.

The calorific value of fuel and price of fuel considered by the Commission for computation of normative fuel cost for FY 2017-18 and FY 2018-19 is shown in the following Table:

**Table 3-16: Approved Calorific Value and Price of fuels for FY 2017-18 and FY 2018-19**

Station	FY 2017-18				FY 2018-19			
	Coal		Secondary Fuel		Coal		Secondary Fuel	
	Calorific Value (kcal/kg)	Actual Price of Fuel (Rs. /MT)	Calorific Value (kcal/kL)	Actual Price of Fuel (Rs. /kL)	Calorific Value (kcal/kg)	Actual Price of Fuel (Rs. /MT)	Calorific Value (kcal/kL)	Actual Price of Fuel (Rs. /kL)
KTPS	3,134.00	1,639.90	10,000	36,291.40	3,092.97	1,858.43	10,000	47,640.89
HTPS	3,494.09	1,729.72	10,000	45,699.44	3,555.33	1,841.26	10,000	55,104.14
DSPM	3,857.77	1,959.35	10,000	48,687.93	3,745.06	2,081.98	10,000	60,752.56
KWTPP	3,493.65	1,729.72	10,000	45,699.00	3,559.75	1,841.26	10,000	55,104.00
ABVTTP	3,659.13	2,122.32	10,000	53,194.00	3,614.52	2,299.98	10,000	47,808.00

### 3.10 Fuel Cost

#### Commission's Views

Based on the approved performance parameters, calorific values of fuels and fuel prices, the normative and actual fuel cost has been computed for FY 2017-18 and FY 2018-19 as shown in the Table below:

**Table 3-17: Approved Fuel Cost for FY 2017-18 and FY 2018-19**

Station	FY 2017-18		FY 2018-19	
	Normative	Actual	Normative	Actual
KTPS	379.64	293.93	300.12	291.70
HTPS	780.89	709.30	820.84	744.74
DSPM	481.20	503.51	528.03	518.65
KWTPP	445.39	476.24	466.74	500.38
ABVTTP	858.75	813.68	1,025.89	989.43

### **3.11 Annual Fixed Charges for CSPGCL**

Regulation 35 of the CSERC MYT Regulations, 2015 specifies the components of Annual Fixed Charges (AFC) for CSPGCL as under:

- (a) Depreciation
- (b) Return on Equity;
- (c) Interest and Finance Charges;
- (d) Interest on Working Capital;
- (e) Operation and Maintenance Expenses and;

Less:

- (f) Non-Tariff Income

In addition to the above, the Commission has approved the Contribution to Pension Fund as a part of AFC in the MYT Order for Control Period from FY 2016-17 to FY 2020-21.

### **3.12 Capital Cost and Additional Capitalisation**

#### **CSPGCL's Submission**

CSPGCL has considered the opening capital cost and capital structure of existing Thermal and Hydro Stations same as the closing values for FY 2016-17 as approved in True-up. The additional capitalization for both years i.e., FY 2017-18 and FY 2018-19 has been considered based on the schemes approved in Capital Investment Plan. CSPGCL has segregated the capital expenses and R&M expenses, in compliance with the directives of the Commission and in line with the approach adopted by the Commission in Order dated June 12, 2014 and subsequent letter No. 1705 dated October 27, 2014.

As regards DSPM TPS, CSPGCL submitted that, in the accounts for FY 2018-19, after receipt of LP rotor at site capitalisation of LP rotor took place . , Inadvertently the value of GST, Insurance and Transport cost and the invoice value got omitted and was not factored in . The correction entry is being passed in accounts for FY 2019-20. However, the same amount has been considered in additional capitalisation for FY 2018-19.

As regards KWTPP, CSPGCL submitted that the BOP vendor M/s Techpro has gone under the NCLT proceedings. IRP has been appointed by the NCLT. In reference to

the representation/ notice submitted by the IRP, CSPGCL obtained a legal opinion and supplementary agreement has been reached thereof. Accordingly, the income from advance to contractor has been revisited. In the instant petition, the corresponding reversal has been incorporated in the same manner in which it was claimed in the previous years. At the same time, Minutes of the meeting has been signed with BHEL for settlement of liquidated damages for the plant. After detail pursuance, finally BHEL has agreed for liquidated damages of Rs. 44.83 Crore. In accordance with the principle adopted in Hon'ble APTEL in the Appeal No. 72 of 2010, CSPGCL in the instant True up has considered adjustment of 50% of the Liquidated Damages settled with BHEL. It is further clarified that, though the above settlement on Liquidated Damages would appear in accounts of FY 2019-20, CSPGCL is passing of the Liquidated Damages adjustment benefit in the True up of FY 2018-19 itself.

### **Commission's Views**

The station-wise additional capitalisation submitted by CSPGCL and additional capitalisation incurred have been duly scrutinised. The Commission has considered the additional capitalisation for KTPS, HTPS, DSPM and Hasdeo Bango after due prudence check.

As regards DSPM TPS, the Commission notes that CSPGCL has considered the capital cost of Rs. 18.54 Crore for LP rotor, which has been inadvertently missed out in FY 2018-19 and will be booked in accounts for FY 2019-20. The Commission notes same and accordingly the amount has been considered in FY 2018-19. Further, the Commission directs CSPGCL not to consider the same amount at time of final true-up for FY 2019-20 and same shall be submitted separately to the Commission. In subsequent submission to the Commission, CSPGCL submitted that final capitalisation report was received for rotor capitalisation and submitted the capital cost of Rs. 22.09 Crore as against amount of Rs. 21.98 Crore submitted in the Petition. Accordingly, the Commission approves additional capitalisation of Rs. 25.89 Crore for FY 2018-19 for DSPM, which includes capitalisation towards rotor, raising of ash dyke and other works.

As regards KWTPP, the actual net additional capitalisation is 11.10 Crore for FY 2017-18 and Rs. 13.39 Crore for FY 2018-19. The Commission notes that, while considering the actual additional capitalisation for FY 2018-19, CSPGCL has adjusted the amount of Rs. 45 Crore towards Liquidated Damages (LD).

In reply to the specific query of the Commission, CSPGCL submitted copy of Minutes of Meeting with BHEL for settlement of LD of Rs. 45 Crore. The Commission verified the details from the same.

As regards the adjustment of LD in ARR, CSPGCL in reply to the specific query submitted that the impact of LD has been considered at 50% in accordance with the Hon'ble APTEL Judgment in Appeal No. 72 of 2010. Further, CSPGCL submitted that LD recovery, which shall be reflected in the financial accounts in FY 2019-20 and for the purpose of regulatory accounts has been considered in FY 2018-19 itself, shall result in de-capitalisation of the assets. Further, in the previous years, interest from advance to contractor (M/s Techpro) was considered. After reconciliation, it was found that excess recovery of interest has taken place and the same has been reversed. Post COD, in the previous years, a significant part of the interest so charged was considered as de-capitalisation. However, some of the portion was also booked to the Non-tariff Income. As a corollary, the reversal has to trade the same path, which was adopted for the original booking. Accordingly, against the decapitalisation considered in the previous years, reversal is treated as additional regulatory capitalization and against NTI considered in the previous year, reversal of NTI is considered. In the order this reversal of NTI has been shown as Prior period charges so as to distinguish it from the NTI of FY 18-19.

After reconciliation, the actual interest on advance, as per the terms of agreement reached by the parties is stated to be Rs. 48.36 Crore. Against the same total interest on advance shown in the previous petitions and considered in the respective orders was as under:

- (a) Rs. 44.22 Crore adjusted in the project cost as on COD vide order dated September 22, 2015 on the Petition No. 08 of 2015 (M).
- (b) In the Final True up for FY 2013-14, post COD, Interest on Advance to Contractors was considered in Form 17 (NTI), as Rs 2,99,59,017/-. No decapitalisation was considered.
- (c) In the Final True up for FY 2014-15, Interest on Advance to Contractors (Rs 4,21,31,375/-) was booked to NTI at HO. No decapitalisation was considered.
- (d) In the Final True up for FY 2015-16, Interest on Advance to Contractors was considered in Form 17, as Rs 8,24,65,629/-. No decapitalisation was considered.

- (e) In the Final True up for FY 2016-17, Interest on Advance to Contractors was considered as de-capitalization in the Form 9. The de-capitalisation was considered as Rs 13,74,05,286/- . No NTI was considered.
- (f) In the Final True up for FY 2017-18, Interest on Advance to Contractors was considered as de-capitalization in the Form 9. The de-capitalisation was considered as Rs 13,01,61,163/- . No NTI was considered.

In view of the above, the reversal of decapitalisation has been considered in the following manner:

- (a) Additional Regulatory Capitalisation – Rs. 26.76 Crore (Rs. 13.74+13.02 Crore)
- (b) De-capitalisation of recovery of LD – Rs. 22.50 Crore (50% of Rs. 45 Crore)
- (c) Net adjustment in Capitalisation – Rs. 4.26 Crore.

The Commission notes that actual capitalisation for FY 2018-19 is Rs. 9.14 Crore. In addition to this, adjustment of Rs. 4.26 Crore was considered by CSPGCL, which includes the impact of 50% of LD i.e., Rs. 22.42 Crore and reversal of interest on advance to contractor of Rs. 26.76 Crore as discussed above.

Further, the Commission notes that capital cost for KWTPP was approved in Order dated September 22, 2015 in the Petition No. 8 of 2015. In the said Order, the treatment regarding the IDC on account of delay has been considered in accordance with Hon'ble APTEL Judgment in Appeal No. 72 of 2010. The relevant extract of Order is as under:

*“8.9.24 On the basis of above judgement of Hon'ble ATE ,the Commission is of the view that extra IDC on account of the delay (of about 96 days i.e total delay of 265 days minus delay of 169 days on account of chimney) would be shared between the generating company and the beneficiary. Accordingly the cost has to be shared between the generating company and the beneficiaries in ratio 50:50. In such a case, the extra IDC needs to be computed considering the impact of the delay in the commissioning of the project only (i.e. 96 days).*

*8.9.25 The Commission has recomputed IDC due to time over run of 96 days considering the approved cost of Rs. 2,432.73 crore (which is exclusive of IDC) with Debt: Equity ratio of 90:10, based on the actual loan drawal pattern of Rs. 2,649.26 crore upto COD and actual interest rates submitted by CSPGCL. Commission considers actual disbursement for re-computation of IDC as base since the disbursement was made on actual bills submitted to PFC for payment as loan.”*

From the above, the Commission confirms that the adjustment of LD has to be considered in ratio of 50:50 in accordance with Hon'ble APTEL Judgement. Further, the Commission is of view that the recovery of LD was not considered at time of approval of Capital Cost. However, since, it has realised now, the treatment of the same has been considered from the year of realisation. Accordingly, the Commission has considered the recovery of LD in FY 2018-19. Further, based on the submission made by CSPGCL, the Commission approves the additional capitalisation of Rs. 13.39 Crore for KWTPP for FY 2018-19.

As regards ABVTPS, the Commission vide Order dated July 7, 2018 has approved the Project cost of Rs. 8892.51 Crore. This Capital cost includes recovery of anticipated LD of Rs. 233.25 Crore. The recovery of LD has been considered at 50% as per Hon'ble APTEL Judgment in Appeal No. 72 of 2010. The relevant extract of Order is as under:

*“As the costs up to revised COD are being allowed in full and for the period thereafter are being disallowed in totality, in accordance to Hon'ble APTEL Order, the recoveries through LD / penalties/ insurance should also follow the same path. However, as at present no delay analysis and break up of proposed LD is available, for the purpose of this order the Commission is considering sharing of proposed recovery from LD in 50:50 ratio. **The petitioner is directed to submit details of delay analysis and LD recoveries at the time of true up after contract closure.**”*

In the present Petition, the Commission notes that CSPGCL sought extension of cut off date for completion of pending works without any cost escalation for ABV TPS as well as KWTPP upto FY 20-21. The Commission grants the same however it is made clear that no cost escalation on account of such time extension shall be entertained. Further no time extension beyond the control period shall be granted. The instant extension is inclusive of consideration of pandemic and related issues.

At the same time it is noted that prayer for such extension implies further delay in closure of contracts and LD settlement for ABVTPS. Hence, the Commission, in the present Order, for the purpose of capital cost, decides to consider the recovery of LD, as considered in the Order dated July 7, 2018. Hence, in accordance to the order dated 7<sup>th</sup> July 2018, Commission disallows capitalisation equal to 50% of the projected LD and benefit is passed to the consumer. Further, the utility is directed to submit the detailed delay analysis in the true up for FY 20-21, else irrespective of actual LD recovery or not, the balance 50% of the projected LD shall also be adjusted in the

petition itself. Subsequently, upon receipt of detailed delay analysis and actual LD recovery, relief to CSPGCL shall be considered after prudence check and in accordance to the principles laid down by Hon'ble APTEL judgement in appeal 72 of 2010, relied in the order dated 07<sup>th</sup> July 2018. In absence of delay analysis, it would not be prudent to consider the recovery of anticipated LD in ratio of 50:50. The Commission is of view that, such benefit of doubt should be passed to consumer. Accordingly, the Commission has reduced the Opening GFA for FY 2017-18 of ABVTPS by amount of Rs. 116.63 Crore. Also, after applying debt:equity ratio of 87.56:12.44, the reduction in Opening normative loan and Opening equity has been considered by Rs. 102.12 Crore and Rs. 14.50 Crore respectively.

The additional capitalisation approved for FY 2017-18 and FY 2018-19 is shown in the following Table:

**Table 3-18: Approved Additional Capitalisation in true up for FY 2017-18 and FY 2018-19 (Rs. Crore)**

Station	FY 2017-18			FY 2018-19		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
KTPS	47.00	0.66	0.66	0.00	12.52	12.52
HTPS	227.58	6.44	6.44	114.85	54.56	54.56
DSPM	0.75	0.00	0.00	9.10	25.78	25.89
HBPS	-	-	-	0.00	-	-
KWTPP	53.58	11.10	11.10	1.00	13.39	13.39
ABVTPS	68.93	77.74	77.74	389.01	293.62	293.62
<b>Total</b>	<b>397.84</b>	<b>95.94</b>	<b>95.94</b>	<b>513.96</b>	<b>39987</b>	<b>399.98</b>

### 3.13 Means of Finance for Additional Capitalisation

#### CSPGCL's submission

CSPGCL submitted that the actual equity addition towards additional capitalisation is higher than 30%, except for ABVTPP. However, in line with the provision of Regulations 17.1 and 17.3 of the CSERC MYT Regulations, 2015, debt: equity ratio of 70:30 has been considered for the additional capitalisation in FY 2017-18 and FY 2018-19 for all generating stations except ABVTPP. For ABVTPP, the debt: equity ratio considered as per Order dated July 7, 2018.

### Commission's Views

As regards the funding of additional capitalisation, the Commission notes that the actual equity addition is more than 30% as per the audited accounts for FY 2017-18 and FY 2018-19 for all generating stations, except for ABVTPP. The Commission has considered the normative debt: equity ratio of 70:30 in accordance with provisions of CSERC MYT Regulations, 2015 for all generating station except for ABVTPP and KWTPP. As the additional capitalisation is within the approved project cost, the equity in additional capitalisation is considered in the same ratio as in the opening GFA. The excess equity in capitalisation has been considered as normative loan. The means of finance for additional capitalisation for FY 2017-18 and FY 2018-19 as approved is shown in the following Tables:

**Table 3-19: Approved Means of Finance for existing stations for FY 2017-18**

(Rs. Cr.)

Station	CSPGCL Petition			Approved		
	Equity	Debt	Total	Equity	Debt	Total
KTPS	0.20	0.46	0.66	0.20	0.46	0.66
HTPS	1.93	4.50	6.43	1.93	4.50	6.43
DSPM	-	-	-	-	-	-
HBPS	-	-	-	-	-	-
KWTPP	3.33	7.77	11.10	1.90	9.20	11.10
ABVTPP	9.67	68.07	77.74	9.67	68.07	77.74
<b>Total</b>	<b>15.13</b>	<b>80.8</b>	<b>95.93</b>	<b>13.70</b>	<b>82.24</b>	<b>95.93</b>

**Table 3-20: Approved Means of Finance for existing stations for FY 2018-19**

(Rs. Cr.)

Station	CSPGCL Petition			Approved		
	Equity	Debt	Total	Equity	Debt	Total
KTPS	3.76	8.76	12.52	3.76	8.77	12.52
HTPS	16.37	38.19	54.56	16.37	38.19	54.56
DSPM	7.73	18.05	25.78	7.77	18.12	25.89
HBPS	-	-	-	-	-	-
KWTPP	4.02	9.38	13.40	2.30	11.10	13.40
ABVTPP	36.52	257.09	293.62	36.53	257.09	293.62
<b>Total</b>	<b>68.40</b>	<b>331.48</b>	<b>399.88</b>	<b>66.72</b>	<b>333.27</b>	<b>399.98</b>



### 3.14 Depreciation

#### CSPGCL's Submission

CSPGCL submitted that Depreciation for DSPM TPS, KWTPP has been computed by applying weighted average depreciation rate on the average regulatory GFA. The weighted average rate of depreciation has been computed by applying category-wise scheduled rates specified in the Regulation 24.4 of CSERC MYT Regulations, 2015 on average GFA. The depreciation submitted by CSPGCL for DSPM is shown in the following Table:

**Table 3-21: Depreciation for DSPM for FY 2017-18 and FY 2018-19 as submitted by CSPGCL (Rs. Cr.)**

Particulars	DSPM			
	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	MYT Order	CSPGCL's Petition
Opening GFA	2339.20	2,335.77	2,339.95	2,335.77
Additional Capitalization	0.75	0.00	9.10	25.78
Closing GFA	2,339.95	2,335.77	2,349.05	2,361.55
Average GFA	2,339.58	2,335.77	2,344.50	2,348.66
Weighted Average Rate of Depreciation	5.50%	5.49%	5.50%	5.49%
<b>Depreciation</b>	<b>128.66</b>	<b>128.17</b>	<b>128.93</b>	<b>128.85</b>

The depreciation submitted by CSPGCL for KWTPP is shown in the following Table:

**Table 3-22: Depreciation for KWTPP for FY 2017-18 and FY 2018-19 as submitted by CSPGCL (Rs. Cr.)**

Particulars	KWTPP			
	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	MYT Order	CSPGCL's Petition
Opening GFA	3665.79	3574.78	3719.37	3585.88
Additional Capitalization	53.58	11.10		13.39
Closing GFA	3719.37	3585.88		3599.27
Average GFA	3692.58	3580.33		3592.58
Weighted Average Rate of Depreciation	5.17%	5.16%		5.16%
<b>Depreciation</b>	<b>191.07</b>	<b>184.79</b>	<b>192.48</b>	<b>185.29</b>

As per the settled methodology adopted by the Commission in the previous orders, for HTPS, CSPGCL has computed the average depreciation rate on assets added after April 1, 2010. The depreciation submitted by CSPGCL for HTPS is shown in the following Table:

**Table 3-23: Depreciation for HTPS for FY 2017-18 and FY 2018-19as submitted by CSPGCL (Rs. Cr.)**

Particulars	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	MYT Order	CSPGCL's Petition
Opening GFA on additional capitalization from FY 2010-11 onwards		380.30		386.74
Additional Capitalization during the year		6.44		54.56
Closing GFA		386.74		441.30
Average GFA		383.52		414.02
Depreciation rate (%)		5.33%		5.33%
<b>Depreciation for the year</b>	<b>25.38</b>	<b>20.44</b>	<b>34.59</b>	<b>22.05</b>

The depreciation for KTPS has been done in accordance to the principle relied by the Commission in the previous order and considering the remaining years of operation of the plant. The depreciation submitted by CSPGCL for KTPS is shown in the following Table:

**Table 3-24: Depreciation for KTPS for FY 2017-18 and FY 2018-19 as submitted by CSPGCL (Rs. Cr.)**

Particulars	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	MYT Order	CSPGCL's Petition
Opening GFA as per Order		675.18		675.84
Additional Capitalisation		0.66		12.52
Closing GFA		675.84		688.36
90% of GFA		608.26		619.53
Accumulated Depreciation up to last year		412.67		461.57
Balanced Depreciable value		195.59		157.96
Balance useful life		4.00		3.00
<b>Depreciation for the year</b>	<b>60.01</b>	<b>48.90</b>	<b>60.01</b>	<b>52.65</b>

The depreciation for Hasdeo Bango Hydel plant has been computed in accordance with the first proviso of the Regulation 24.4 and in line with the methodology adopted in the MYT order, by spreading the balance depreciable value over the balance useful life. The depreciation submitted by CSPGCL for HBPS is shown in the following Table:

**Table 3-25: Depreciation for HBPS for FY 2017-18 and FY 2018-19 as submitted by CSPGCL (Rs. Cr.)**

Particulars	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	MYT Order	CSPGCL's Petition
Opening GFA		109.90		109.90
Additional Capitalisation		-		-
Closing GFA		109.90		109.90
Accumulated Depreciation up to last year		64.43		67.08
90% of GFA excluding land		98.91		98.91
Balance amount to be depreciated		34.48		31.83
Remaining Useful Life		13.00		12.00
<b>Depreciation for the year</b>	<b>2.65</b>	<b>2.65</b>	<b>2.65</b>	<b>2.65</b>

CSPGCL submitted that Depreciation for ABVTPP has been computed by applying weighted average depreciation rate on the average regulatory GFA. The weighted average rate of depreciation has been computed by applying category-wise scheduled rates specified in the Regulation 24.4 of CSERC MYT Regulations, 2015 on average GFA. Further, CSPGCL submitted the depreciation for ABVTPP for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 3-26: Depreciation for ABVTPP as submitted by CSPGCL for FY 2017-18 and FY 2018-19**

Particulars	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	Order dt 07 <sup>th</sup> July 2018	CSPGCL's Petition
Opening GFA	-	8264.17	8503.49	8341.91
Additional Capitalization	-	77.74	389.01	293.62
Closing GFA	-	8341.91	8892.50	8635.53
Average GFA	-	8303.04	8698.00	8488.72
Weighted Average Rate of Depreciation	-	5.35%	5.34%	5.34%
<b>Depreciation</b>	<b>-</b>	<b>444.49</b>	<b>464.67</b>	<b>453.51</b>

### **Commission's Views**

The Commission has detailed the methodology for computation of depreciation for existing Generating Stations in the MYT Order.

For KTPS, the Commission was allowing the depreciation for KTPS based on scheduled depreciation rate as specified in CSERC MYT Regulations till FY 2015-16. However, in MYT Order, the Commission has changed the methodology and approved Depreciation over the balance useful life of the Units (till FY 2020-21) by considering the anticipated closure of 50 MW Units. As per retirement schedule considered in MYT Order, Unit 3 was proposed to be retired in June 2016, Unit 1 in March 2017, Unit 2 in December 2017 and Unit 4 in June 2018. However, the Commission notes that none of the 50 MW Units retired during FY 2016-17. Unit 1 was retired on July 5, 2017 and Unit 2 on December 7, 2017. Also, Unit 3 and 4 were retired on September 14, 2018. Hence, all 50 MW Units were retired till FY 2018-19. Further, CSPGCL confirmed that the retirement of plant would be in FY 2020-21. Since, it is presumed that all Units of KTPS will be retired by FY 2020-21 as per original schedule, the Commission has not considered any deviation in methodology for allowing depreciation. In view of the above, the Commission continues with the methodology of depreciation as approved in MYT Order and approves the depreciation over balance useful life of the plant for FY 2017-18 and FY 2018-19. As per Regulation, Land has not been considered for depreciation.

For HTPS, the Commission in its previous orders has already allowed full recovery of the balance depreciable value of old capital cost of the asses. Hence, no balance depreciation value for original capital cost has been considered. For the additional capitalisation after 2010, the depreciation on average GFA and depreciation rate based on scheduled depreciation rates of 5.32% for FY 2017-18 and 5.33% for FY 2018-19 have been considered.

For DSPM, the Commission has computed depreciation based on scheduled rates specified in the MYT Regulations, 2015, Depreciation has been computed by applying the weighted average depreciation rate of 5.49% on average GFA.

In case of KWTPP, the depreciation rate has been considered based on the actual depreciation reported in the accounts for FY 2017-18 and FY 2018-19, which has

been applied on the revised opening GFA and asset addition during the year approved in this Order.

For Hasdeo Bango, the depreciation has been considered over the balance useful life of the plant, as per methodology adopted in past Orders.

For ABVTPP, the depreciation rate has been considered based on the actual depreciation reported in accounts, which has been applied on the revised opening GFA and asset addition during the year approved in this Order.

In view of the above, the Commission approves the Depreciation for FY 2017-18 and FY 2018-19 after final true-up, as shown in the following Table:

**Table 3-27: Depreciation approved for CSPGCL for FY 2017-18 (Rs. Cr.)**

Particulars	KTPS	HTPS	DSPM TPS	Hasdeo Bango	KWTPP	ABVTPP
Opening GFA	675.18	380.31	2335.77	109.90	3574.78	8147.54
Additional Capitalization	0.66	6.44	-	-	11.10	77.74
Closing GFA	675.84	386.75	2335.77	109.90	3585.88	8,225.28
Average GFA		383.53	2335.77	109.90	3580.33	8,186.41
Average Rate of Depreciation		5.32%	5.49%		5.16%	5.35%
<b>Depreciation</b>	<b>48.45</b>	<b>20.41</b>	<b>128.17</b>	<b>2.65</b>	<b>184.79</b>	<b>438.25</b>

**Table 3-28: Depreciation approved for CSPGCL for FY 2018-19 (Rs. Cr.)**

Particulars	KTPS	HTPS	DSPM TPS	Hasdeo Bango	KWTPP	ABVTPP
Opening GFA	675.84	386.75	2,335.77	109.90	3585.88	8225.28
Additional Capitalization	12.52	54.56	25.89	-	13.39	293.62
Closing GFA	688.36	441.31	2,361.66	109.90	3599.27	8518.90
Average GFA		414.03	2,348.71	109.90	3592.58	8372.09
Average Rate of Depreciation		5.33%	5.49%		5.16%	5.34%
<b>Depreciation</b>	<b>52.21</b>	<b>22.05</b>	<b>128.85</b>	<b>2.65</b>	<b>185.29</b>	<b>447.28</b>

### 3.15 Return on Equity

#### CSPGCL's submission

CSPGCL has computed Return on Equity (RoE) as per Regulation 22 of the CSERC MYT Regulations, 2015 for FY 2017-18 and FY 2018-19. RoE has been computed on

pre-tax basis at the base rate of 15.50% for existing Thermal and Hydel Power Plants on permissible equity for FY 2017-18 and FY 2018-19.

Further regarding pass through of Income Tax on actual basis (which is lower than the impact of grossing up by MAT), the Commission held as under:

*“...As regards the prayer of CSPGCL to allow the Income Tax liability for FY 2017-18 on actual basis, an appropriate view regarding the same shall be taken based on submissions of CSPGCL in this regard at the time of final true-up for FY 2017-18, when audited accounts for FY 2017-18 are available.”*

In view of the above, it is submitted that, in the same order based on scrutiny of documents, the Commission has been pleased to allow Income Tax as pass through on actual basis to CSPTCL.

*“As regards Income Tax, CSPTCL was asked to submit the detailed computation of Income Tax and related documentary evidence for actual Income Tax paid for FY 2016-17 and FY 2017-18. CSPTCL submitted the Income Tax challans for FY 2016-17 and FY 2017-18. Further, CSPTCL clarified that no adjustment towards MAT credit has been made during FY 2016-17 and FY 2017-18. Based on the scrutiny of the documentary evidences submitted by CSPTCL and actual Income Tax paid, the Commission approves Income Tax of Rs. 14.38 cr. for FY 2016-17 and Rs. 12.97 cr. for FY 2017-18.”*

CSPGCL submitted that, the audited accounts are available for FY 2017-18 and for FY 2018-19 and have been audited by the statutory auditors, in line with Regulations. CSPGCL requested for allowing the Income tax actually paid in FY 2017-18 and FY 2018-19 as pass through. CSPGCL clarified that, by not submitting the ROE computation by grossing up with the MAT, it is not waiving the claim in entirety. If the ROE is grossed up by the MAT as per the formula given in the Regulation 22, the total impact would be more than Rs. 80 Cr. for each year, wherein the actual Income tax paid by CSPGCL is Rs. 52.79 Cr. for FY 2017-18 and Rs. 76.92 Cr. for FY 2018-19. Thus, the Income tax being claimed is lower than the impact of gross up.

CSPGCL submitted the station-wise RoE for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 3-29: Return on Equity for FY 2017-18 as submitted by CSPGCL (Rs. Cr.)**

Particulars	FY 2017-18					
	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP	ABVTPP
Permissible Equity in Opening GFA	209.14	370.38	695.51	37.72	612.78	1,027.81
Equity addition during the year	0.20	1.93	0.00	0.00	3.33	9.67
Permissible Equity in Closing GFA	209.34	372.31	695.51	37.72	616.11	1037.48
Rate of return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
<b>Return on Equity</b>	<b>28.57</b>	<b>57.56</b>	<b>107.80</b>	<b>5.85</b>	<b>95.24</b>	<b>160.06</b>

CSPGCL submitted the station-wise RoE for FY 2017-18 as shown in the following Table:

**Table 3-30: Return on Equity for FY 2018-19 as submitted by CSPGCL (Rs. Cr.)**

Particulars	FY 2018-19					
	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP	ABVTPP
Permissible Equity in Opening GFA	209.34	372.31	695.51	37.72	616.11	1037.48
Equity addition during the year	3.76	16.37	7.73	0.00	4.02	36.52
Permissible Equity in Closing GFA	213.10	388.68	703.24	37.72	620.13	1074.00
Rate of return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
<b>Return on Equity</b>	<b>21.26</b>	<b>58.98</b>	<b>108.40</b>	<b>5.85</b>	<b>95.81</b>	<b>163.64</b>

### Commission's View

Regulation 22 of the MYT Regulations, 2015 specifies as under:

#### ***“22. RETURN ON EQUITY***

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

...

*22.3 The rate of return on equity for each year of the control period shall be computed by grossing up the base rate with the prevailing MAT rate of the base year: Provided that return on equity with respect to the actual tax rate applicable to the generating*

*company or the transmission licensee or distribution licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the Control Period shall be trued up separately for each year of the Control Period. In case, no tax is payable during the financial year, the tax rate for the purpose of truing up shall be taken as nil....”*

The RoE for FY 2017-18 and FY 2018-19 has been approved in the MYT Order dated April 30, 2016.

For existing stations, the closing equity approved in true-up for FY 2016-17 has been considered as the opening equity for FY 2017-18. The addition of equity has been considered equivalent to equity amount approved towards additional capitalisation. RoE has been computed as per Regulation 22 of the MYT Regulations, 2015.

The grossing up of base rate of RoE with the applicable tax rate has not been considered. The base rate of RoE of 15.50% has been considered as specified in the MYT Regulations, 2015.

For KTPS, ROE has been computed based on effective capacity during the year after considering the retirement of Units.

RoE approved for FY 2017-18 and FY 2018-19 is shown in the following tables:

**Table 3-31: Approved Return on Equity for FY 2017-18 (Rs. Cr.)**

<b>Particulars</b>	<b>KTPS</b>	<b>HTPS</b>	<b>DSPM</b>	<b>Hasdeo Bango</b>	<b>KWTPP</b>	<b>ABVTPP</b>
Opening Equity	209.14	370.38	695.51	37.72	612.78	1,013.31
Equity addition during the year	0.20	1.93	0.00	0.00	1.90	9.67
Closing Equity	209.34	372.31	695.51	37.72	614.68	1,022.98
Rate of return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
<b>Return on Equity</b>	<b>28.57</b>	<b>57.56</b>	<b>107.80</b>	<b>5.85</b>	<b>95.13</b>	<b>157.81</b>



**Table 3-32: Approved Return on Equity for FY 2018-19 (Rs. Cr.)**

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP	ABVTPP
Opening Equity	209.34	372.31	695.51	37.72	614.68	1022.98
Equity addition during the year	3.76	16.37	7.77	0.00	2.30	36.53
Closing Equity	213.10	388.68	703.28	37.72	616.98	1059.51
Rate of return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
<b>Return on Equity</b>	<b>21.26</b>	<b>58.98</b>	<b>108.41</b>	<b>5.85</b>	<b>95.45</b>	<b>161.39</b>

Further, the Commission notes that CSPGCL has claimed Income Tax of Rs. 52.79 Cr. for FY 2017-18 and Rs. 76.92 Cr. for FY 2018-19. The Commission has verified the claim of Income Tax with Income Tax challans, ITR Verification and computation of Income Tax. The Commission notes that refund of Rs. 0.60 Cr. was received towards FY 2013-14. Since, no Income tax was allowed in FY 2013-14, the same has not been adjusted in Income Tax claimed. In view of the above, the Commission approves Income Tax of Rs. 52.79 Cr. for FY 2017-18 and Rs. 76.92 Cr. for FY 2018-19.

### 3.16 Interest and Finance Charges

#### CSPGCL's submission

CSPGCL submitted that Interest and Finance charges have been computed as per Regulation 23 of the CSERC MYT Regulations, 2015 for FY 2017-18 and FY 2018-19. The repayment for the year has been deemed to be equal to the depreciation for the year and normative interest on loan has been calculated on the normative average loan during the year by applying the weighted average rate of interest of actual loan portfolio at the beginning of the year.

CSPGCL added that weighted average rate of interest for each project has been computed in accordance to regulation 23.5. The timely payment rebate, as applicable, has also been considered. The savings from refinancing have been claimed in accordance to the methodology adopted by the Commission in previous order/s.

The Interest and Finance charges submitted by CSPGCL for FY 2017-18 and FY 2018-19 are shown in the following Table:

**Table 3-33: Interest & Finance Charges as submitted by CGPGCL for FY 2017-18 (Rs. Cr.)**

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTTP	ABVTPP
Opening Normative loan	53.37	103.69	627.40	7.73	2,340.78	6,872.84
Repayment during the period	48.90	20.44	128.17	2.65	184.79	444.49
Debt Addition during the year	0.46	4.50	-	-	7.77	68.07
Closing Net Normative Loan	4.93	87.75	499.23	5.07	2,163.76	6,496.42
Weighted Average Interest Rate (%)	11.22%	11.27%	10.25%	9.93%	9.90%	9.90%
Interest Expense for the Period	3.27	10.78	57.74	0.64	222.97	661.78
Sharing of net savings for re-financing	0.00	0.00	4.07	0.00	21.32	61.50
Financing and Other Charges	0.06	0.09	0.05	0.00	0.05	-
<b>Total Interest Expenses</b>	<b>3.33</b>	<b>10.87</b>	<b>61.87</b>	<b>0.64</b>	<b>244.35</b>	<b>723.28</b>

Similarly, the Interest and Finance charges submitted by CSPGCL for FY 2018-19 are shown in the following Table:

**Table 3-34: Interest & Finance Charges as submitted by CGPGCL for FY 2018-19 (Rs. Cr.)**

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTTP	ABVTPP
Opening Normative loan	4.93	87.75	499.23	5.07	2,163.76	6,496.42
Repayment during the period	52.65	22.05	128.85	2.65	185.29	453.51
Debt Addition during the year	8.77	38.19	18.05	-	9.38	257.09
Closing Net Normative Loan	-	103.90	388.43	2.42	1,987.85	6,300.00
Weighted Average Interest Rate (%)	11.19%	11.23%	10.25%	9.92%	9.90%	9.90%
Interest Expense for the Period	0.63	10.76	45.49	0.37	205.50	633.42
Sharing of net savings for re-financing	-	-	3.21	-	19.65	58.86
Financing and Other Charges	0.01	0.03	0.02	-	0.02	0.08
<b>Total Interest Expenses</b>	<b>0.64</b>	<b>10.80</b>	<b>48.72</b>	<b>0.37</b>	<b>225.18</b>	<b>692.37</b>

### Commission's Views

The Commission has computed Interest and Finance charges as per Regulation 23 of CSERC MYT Regulations, 2015 for FY 2017-18 and FY 2018-19.

For existing stations, the closing net normative loan balance approved for FY 2016-17 after True-up has been considered as opening net normative loan balance for FY 2017-18. The debt addition has been considered equal to debt amount approved in this order towards additional capitalisation for FY 2017-18 and FY 2018-19. The depreciation has been considered as repayment during the year.

The actual weighted average interest rate as on April 1, 2017 and April 1, 2018 have been re-computed as per accounts and documentary evidences submitted by

CSPGCL. Accordingly, the station-wise revised weighted average rate of interest has been considered for FY 2017-18 and FY 2018-19.

Further, as per Regulation 23.8 of the CSERC MYT Regulations, 2015, the savings of re-financing shall be shared between the beneficiaries, i.e., CSPDCL, and CSPGCL in the ratio of 2:1. The Commission in past Tariff Order, while undertaking provisional true-up for FY 2017-18 has adopted the methodology for sharing the savings of re-financing. The same methodology has been continued in the present order. Accordingly, net savings have been computed separately and allowed in addition to Interest and finance charges. Further, the Commission notes that CSPGCL confirmed that no additional cost has been incurred by CSPGCL for re-financing of loan, hence, the same has not been considered.

In view of the above, the Interest and Finance charges approved by the Commission for FY 2017-18 and FY 2018-19 are shown in the following Tables:

**Table 3-35: Interest & Finance Charges approved for FY 2017-18 (Rs. Cr.)**

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP	ABVTTP
Opening Net Normative Loan	53.37	103.69	627.40	7.73	2,340.78	6,770.72
Repayment during the period	48.45	20.41	128.17	2.65	184.79	438.25
Debt Addition during the year	0.46	4.50	-	-	9.20	68.07
Closing Net Normative Loan	5.38	87.79	499.23	5.07	2,165.19	6,400.54
Weighted Average Interest Rate (%)	11.22%	11.27%	10.25%	9.93%	9.90%	9.90%
Interest Expense for the Period	3.26	10.79	57.74	0.64	223.05	651.98
Add: Sharing of net savings for re-financing	0.00	0.00	4.07	0.00	21.33	60.59
Add: Financing and Other Charges	0.06	0.09	0.05	0.00	0.05	-
<b>Total Interest Expenses</b>	<b>3.32</b>	<b>10.88</b>	<b>61.87</b>	<b>0.64</b>	<b>244.43</b>	<b>712.57</b>

**Table 3-36: Interest & Finance Charges approved for FY 2018-19 (Rs. Cr.)**

Particulars	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP	ABVTTP
Opening Net Normative Loan	5.38	87.79	499.23	5.07	2,165.19	6,400.54
Repayment during the period	52.21	22.05	128.85	2.65	185.29	447.28
Debt Addition during the year	8.77	38.19	18.12	-	11.10	257.09
Closing Net Normative Loan	-	103.93	388.50	2.42	1,991.00	6210.35
Weighted Average Interest Rate (%)	11.19%	11.23%	10.25%	9.92%	9.90%	9.90%
Interest Expense for the Period	0.42	10.77	45.50	0.37	205.73	624.24
Add: Sharing of net savings for re-financing	-	-	3.21	-	19.67	58.01
Add: Financing and Other Charges	0.01	0.03	0.02	-	0.02	0.08
<b>Total Interest Expenses</b>	<b>0.43</b>	<b>10.80</b>	<b>48.73</b>	<b>0.37</b>	<b>225.42</b>	<b>682.33</b>

### 3.17 Normative Operation and Maintenance (O&M) expenses

#### CSPGCL's Submission

CSPGCL submitted the O&M Expenses (excluding water charges) for existing thermal and hydel power plants in accordance with Regulation 38.5 of the CSERC MYT Regulations, 2015.

Further, CSPGCL submitted that, as per the methodology adopted in earlier orders, O&M Expense in the support functions such as Head Office, CAU, etc., are allocated among the thermal power plants and Hasdeo Bango HEP, based on their installed capacities.

CSPGCL added that it has computed the normative O&M cost in the similar manner as approved in the MYT Order and previous True up order. For the purpose of normalization of O&M expenses for FY 2017-18 and FY 2018-19, CSPGCL has considered WPI variation and CPI variation as shown in the following Table:

**Table 3-37: CPI and WPI Index considered by CSPGCL**

Particulars	FY 2017-18	FY 2018-19
WPI Variation	2.92%	4.28%
CPI variation	3.08%	5.45%
Average	3.02%	4.98%

CSPGCL further submitted that the normative O&M Expenses for KWTPP, whose COD was later than April 1, 2010, have been computed as per the Regulation 38.5.1.1 of the CSERC MYT Regulations, 2015, normalizing the same with actual weighted average rate of inflation.

CSPGCL submitted that it has not considered the productivity incentive as the part of employee expense for the regulatory purpose, as per the methodology settled in the previous Order, CSPGCL has only considered the actual payment of Interim relief as per methodology followed in previous orders. In the accounts, the actual leave encashment expenses have been settled against the provision made in the previous year. In the previous orders the Commission has taken a view that, for the true-up purpose, instead of provisions, only actual expenses/income shall be considered. Accordingly, actual leave encashment has been considered as part of employee cost within O&M Expenses. The cost incurred on coal transport has been reduced from the O&M Expenses and added to the fuel cost.

CSPGCL further submitted that, as per Regulations, contribution to the pension trust has not been considered as part of O&M expenses in MYT Order and CSPGCL has followed the same approach. Similarly, CSPGCL has not considered donations as part of A&G Expenses.

The O&M Expenses submitted by CSPGCL for FY 2017-18 and FY 2018-19 is shown in the following Table:

**Table 3-38: O&M Expenses for FY 2017-18 and FY 2018-19 submitted by CSPGCL (Rs. Cr.)**

Station	FY 2017-18		FY 2018-19	
	MYT Order	Petition	MYT Order	Petition
KTPS	218.92	188.38	198.74	164.31
HTPS	327.81	280.62	354.74	289.89
DSPM	167.90	126.23	180.95	144.00
HBPS	14.02	9.93	15.20	10.47
KWTPP	104.92	54.77	113.45	69.93
ABVTPP	-	156.81	203.54	173.37
<b>Total</b>	<b>990.57</b>	<b>816.74</b>	<b>1066.62</b>	<b>851.97</b>

### Commission's Views

As regards O&M Expenses, Regulation 38.5 of the MYT Regulations, 2015 specifies as under:

***“38.5 Operation and Maintenance expenses***

... ..

***Employee Cost***

- c) *The employee cost, excluding pension fund contribution, impact of pay revision arrears and any other expense of non-recurring nature, for the base year i.e. FY 2016-17, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution, impact of pay revision arrears and any other expense of non-recurring nature, available in the accounts for the previous five (5) years immediately preceding the base year FY 2016-17, subject to prudence check by the Commission.*
- d) *The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2011-12 to FY 2015-16, shall then be used to project base year value for FY 2016-17. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the Control Period.*

***At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.***

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

***A&G Expenses and R&M Expenses***

- e) *The administrative and general expenses(excluding water charges) and repair and maintenance expenses, for the base year i.e. FY 2016-17, shall be derived on the basis of the normalized average of the actual administrative and general expenses (excluding water charges) and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2016-17, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.*
- f) *The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2011-12 to FY 2015-16, shall then be used to project base year value for FY 2016-17. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the Control Period.*

***At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.***

***Provided that water charges shall be pass-through in tariff on reimbursement basis.” (emphasis added)***

In the MYT Order, the Commission has determined the O&M Expenses for the Control Period from FY 2016-17 to FY 2020-21 in accordance with the above Regulations.

The above Regulations specifies that at the time of truing up, the O&M Expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period. The Regulation does not mandate to revise the base O&M expenses as approved in the MYT Order.

Accordingly, the Commission has computed the normative O&M expenses for FY 2017-18 and FY 2018-19 by applying the actual inflation of respective years on base O&M expenses for FY 2016-17, as approved in the MYT order by considering the

actual inflation of CPI and WPI levels for FY 2017-18 over CPI and WPI levels of FY 2016-17. For FY 2017-18, the Commission has considered escalation factor of 3.08% for employee expenses and 2.92% for R&M expenses and A&G Expenses. For FY 2018-19 the Commission has considered escalation factor of 5.45% for employee expenses and 4.32% for R&M expenses and A&G Expenses Further, as regards KWTPP and ABVTPP, the normative O&M expenses has been determined in accordance with the norms specified in the MYT Regulations, 2015. The escalation factor considered for this is 3.02% for FY 2017-18 and 5.00% for FY 2018-19.

As regards KTPS, the Commission in MYT order has reduced normative O&M expenses based on retirement plan of each unit. However, actual retirement is different. Hence, for the purpose of computation of normative O &M Expenses for KTPS, the Commission has considered actual retirement of Units and accordingly reduces the normative O&M Expenses.

Accordingly, the normative O&M Expenses computed for FY 2017-18 and FY 2018-19 are as shown in the following Table:

**Table 3-39: Approved Normative O&M Expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Particulars	FY 2017-18		FY 2018-19	
	MYT Order	Revised Normative Expenses	MYT Order	Revised Normative Expenses
KTPS	218.92	221.52	198.74	193.81
HTPS	327.81	297.78	354.74	312.77
DSPM	167.90	153.04	180.95	160.41
KWTPP	14.02	90.29	15.20	94.81
HB	104.92	12.72	113.45	13.37
ABVTPP	-	180.58	197.18	189.61

For the purpose of truing up for respective years, the Commission approves the normative O&M Expenses as shown in the table above.

As regards the actual O&M Expenses, the Commission sought reconciliation of actual O&M Expenses submitted in the Petition vis-à-vis O&M Expenses reported in audited accounts. The Commission has considered the actual O&M Expenses as submitted by CSPGCL after due prudence check.

The Commission has undertaken sharing of gains and losses as per MYT Regulations, 2015, between normative expenses vis-à-vis provisional expenses as per Provisional Accounts.

As regards the sharing of gains and losses, the following provision has been inserted in Regulation 13.1 by the First Amendment to the MYT Regulations, 2015 on June 16, 2017:

*“Provided further that employee cost shall not be factored in for sharing of gains or losses on account of operations and maintenance expenses, ...”*

Accordingly, the Commission approves the actual Employee Expenses as per audited Accounts for FY 2017-18 and FY 2018-19, and Employee cost is not factored for sharing of gains or losses. The sharing of gains and losses has been undertaken in subsequent section of this chapter.

In this order, the Commission approves the O&M expenses based on audited accounts for FY 2017-18 and FY 2018-19. The normative and actual O&M Expenses approved by the Commission is shown in the following Table:

**Table 3-40: Approved O&M Expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Particulars	FY 2017-18		FY 2018-19	
	Actual	Normative	Actual	Normative
KTPS	188.38	221.52	164.31	193.81
HPS	280.62	297.78	289.89	312.77
DSPM	126.23	153.04	144.00	160.41
KWTTP	54.77	90.29	69.93	94.81
HB	9.93	12.72	10.47	13.37
ABVTPP	156.81	180.58	173.37	189.61

### 3.18 Interest on Working Capital

#### CSPGCL’s Submission

CSPGCL submitted that the Interest on Working Capital (IoWC) for FY 2017-18 and FY 2018-19 has been computed in accordance with Regulation 25 of the CSERC MYT Regulations, 2015, considering the interest rate equal to the applicable Base Rate of State Bank of India as on April 1, 2017 plus 350 basis points, i.e., 12.60%. Similarly, for April 1, 2018 plus 350 basis points, i.e. 12.20% for FY 2018-19. CSPGCL submitted the interest on working capital as per the following table:

**Table 3-41: IoWC for FY 2017-18 and FY 2018-19 as submitted by CSPGCL (Rs. Cr.)**

Station	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL’s Petition	MYT Order	CSPGCL’s Petition
KTPS	15.97	16.22	13.87	13.39
HPS	28.04	30.65	29.08	30.01



Station	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	MYT Order	CSPGCL's Petition
DSPM	23.74	22.00	24.17	21.33
HBPS	0.59	0.86	0.62	0.68
KWTPP	17.60	20.82	17.65	19.80
ABVTPP	43.60	44.63	46.21	46.46
<b>Total</b>	<b>129.54</b>	<b>135.18</b>	<b>131.6</b>	<b>131.67</b>

### Commission's Views

The Commission has computed the IoWC for FY 2017-18 and FY 2018-19 as per Regulation 25 of the MYT Regulations, 2015. The rate of interest has been considered as 12.60% for FY 2017-18 and 12.20% for FY 2018-19, as per the provisions of MYT Regulations, 2015. The revised normative O&M expenses have been considered for computation of Working Capital requirement. The actual revenue billed, excluding the gap / surplus of the previous year/s has been considered as receivables for computation of working capital requirement. Further, in line with the approach adopted in the past orders, DSPM has been considered as a pithead station, and one-month cost of coal has been considered. Accordingly, the IoWC approved by the Commission after provisional truing up for FY 2017-18 is shown in the following Table:

**Table 3-42: Approved IoWC for CSPGCL for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Particulars	FY 2017-18			FY 2018-19		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
KTPS	15.97	16.22	15.77	13.87	13.39	14.09
HTPS	28.04	30.65	29.79	29.08	30.01	30.71
DSPM	23.74	22.00	21.49	24.17	21.33	21.75
HB	0.59	0.86	0.73	0.62	0.68	0.78
KWTPP	17.60	20.82	20.31	17.65	19.80	20.22
ABVTPP	43.60	44.63	43.60	46.21	46.46	47.29

### 3.19 Pension and Gratuity Contribution

#### CSPGCL's Submission

CSPGCL submitted that as per MYT Order, CSPGCL's share of Pension and Gratuity Contribution for FY 2017-18 was determined as Rs. 142.67 Cr. and for FY 2018-19 Rs. 155.58 Cr.. CSPGCL further submitted the plant-wise allocations considered.

**Table 3-43: Pension and Gratuity Contribution for FY 2017-18 and FY 2018-19 as submitted by CSPGCL (Rs. Cr.)**

Station	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	MYT Order	CSPGCL's Petition
KTPS	50.59	50.59	55.17	55.17
HTPS	52.37	52.37	57.11	57.11
DSPM	8.60	8.60	9.38	9.38
HBPS	3.50	3.50	3.81	3.81
KWTTP	8.47	8.47	9.24	9.24
ABVTTP	19.13	19.13	20.86	20.86
<b>Total</b>	<b>142.67</b>	<b>142.67</b>	<b>155.57</b>	<b>155.57</b>

#### Commission's Views

The actual pension fund contribution of Rs. 142.66 Cr., including contribution for ABVTTP, has been approved for CSPGCL for FY 2017-18, for the purpose of the final trueing up. Also, the contribution of Rs. 155.57 Cr. as approved by the Commission for FY 2018-19 in MYT order and order dated July 7, 2018 for ABVTTP has been considered for the purpose of true-up for FY 2018-19.

### 3.20 Non-Tariff Income

#### CSPGCL's submission

CSPGCL submitted the Non-Tariff Income as per Regulation 38.6 of MYT Regulations, 2015 for FY 2017-18 and FY 2018-19 for its existing Stations. Delayed Payment Surcharge has not been taken into account while determining the Non-Tariff Income for FY 2017-18 and FY 2018-19 as per well-settled principle in previous orders. The station specific income has been booked to the respective station, and income appearing against HO & CAU has been allocated to generating stations on the basis of installed capacity.

The Non-tariff Income submitted by CSPGCL for FY 2017-18 and FY 2018-19 is shown in the following Table:

**Table 3-44: Non-Tariff Income for FY 2017-18 and FY 2018-19 as submitted by CSPGCL (Rs. Cr.)**

Station	FY 2017-18		FY 2018-19	
	MYT Order	CSPGCL's Petition	MYT Order	CSPGCL's Petition
KTPS	8.12	1.84	8.67	6.33
HTPS	15.91	3.85	16.98	12.49
DSPM	9.21	1.82	9.84	6.63
HBPS	-	-	-	0.03
KWTPP	4.32	2.09	4.61	6.84
ABVTPP	8.27	8.29	0.00	16.37
<b>Total</b>	<b>45.83</b>	<b>17.89</b>	<b>40.10</b>	<b>48.69</b>

#### Commission's View

In MYT Order the Commission has approved the Non-Tariff income of Rs. 45.83 Cr. and Rs. 40.10 Cr. for CSPGCL for FY 2017-18 and FY 2018-19, respectively.

The Commission approves the station-wise Non-Tariff income for the purpose of trueing up for FY 2017-18 and FY 2018-19, as shown in the following Table:

**Table 3-45: Approved Non-Tariff Income in True-up for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Particulars	FY 2017-18			FY 2018-19		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
KTPS	8.12	1.84	1.84	8.67	6.33	6.33
HTPS	15.91	3.85	3.85	16.98	12.49	12.49
DSPM	9.21	1.82	1.82	9.84	6.63	6.63
KWTPP	4.32	2.09	2.09	4.61	6.84	6.84
HB	-	2.09	-	-	0.03	0.03
ABVTPP	-	8.29	8.29	-	16.37	16.37
<b>Total</b>	<b>45.83</b>	<b>17.89</b>	<b>17.89</b>	<b>40.10</b>	<b>48.69</b>	<b>48.69</b>

### **3.21 Prior Period Items**

#### **CSPGCL's Submission**

CSPGCL has considered the prior period (income)/expenses on the basis of the principles and practices adopted by the Commission in the previous Order. CSPGCL has not considered other excess provision (for ED and Cess and coal cost rectification), and provision / reversal of provision for interim relief and other charges for the Prior Period (income)/expenditure. Similarly, CSPGCL has not considered depreciation and interest on finance charges relating to previous years, as the same has been computed differently and was approved accordingly during the respective True-up. Further, CSPGCL submitted that no contingent liability / claim have been included in the current Petition and such liability / claims shall be submitted on their settlement, as the case may be.

During FY 2018-19, CSPGCL has considered an amount of Rs. 7.73 Cr. towards prior period expenses on account of reversal of interest on advance has occurred in accounts in FY 2013-14, 2014-15 and 2015-16.

#### **Commission's Views**

The Commission sought year-wise details of interest considered in Non-Tariff Income and computation of prior period expenses of Rs. 7.73 Cr.. The Commission notes that CSPGCL has computed net liability of Rs. 15.45 Cr. and 50% of the same has been considered. The Commission notes that, Non-Tariff Income is considered as uncontrollable factor and no sharing of gains and losses was undertaken against such item. Hence, the Commission has considered the total cost/(income), instead of 50%. Also, the Commission has not considered any sharing of gains and losses on this account.

In reply to this query, CSPGCL submitted the revised computation and claimed prior period expenses of Rs. 11.31 Cr. The year-wise details of interest on advance to contractor was discussed in earlier section of this order. As per agreement, the interest is finalised as Rs. 48.36 Cr. The reconciliation of amount submitted by CSPGCL is as under:

**Table 3-46: Reconciliation of Interest on advance to Contractor (Rs. Cr.)**

<b>Particulars</b>	<b>Rs. Cr.</b>
Final Interest reconciled with Contractor (A)	48.36
Interest adjusted in project cost (considered in additional capitalisation) (B)	44.22
Interest Adjusted in Non-Tariff Income (C)	15.45
Total Interest considered in Petitions (D=B+C)	59.68
Net Interest considered for reversal (D-A)	11.31

In view of the above, the Commission approves prior period expenses as Rs. 11.31 Cr. for FY 2018-19.

### **3.22 Statutory Charges**

#### **CSPGCL's Submission**

CSPGCL submitted that as per the CSERC MYT Regulations, 2015, the water charges are on reimbursement basis, and the same has been recovered accordingly. Further, CSPGCL has claimed the SLDC charges as pass through element separately. CSPGCL submitted that Rs. 132.52 Cr. as water Charges and SLDC Charges have been recovered and no deficit/(surplus) has been claimed for FY 2017-18 and Rs. 139.36Cr. as water Charges and SLDC Charges have been recovered and no deficit/(surplus) has been claimed for FY 2018-19.

Further, CSPGCL has reduced expenses of Rs. 0.42 Cr. and Rs. 0.39 Cr. incurred towards petition filing and publication expenses in FY 2017-18 and FY 2018-19, respectively, from O&M expenses and has claimed them separately.

#### **Commission's Views**

For the purpose of the final truing up for FY 2017-18, the Commission has considered Statutory Charges as submitted by CSPGCL and based on audited accounts for FY 2017-18 and FY 2018-19.

### **3.23 Aggregate Revenue Requirement for CSPGCL for FY 2017-18 and FY 2018-19**

The Summary of ARR for KTPS, HTPS, DSPM, HBPS, ABVTPP, KWTPP for FY 2017-18 and FY 2018-19 is shown in the following Table:

**Table 3-47: Approved ARR for CSPGCL's Generating Stations for FY 2017-18 (Rs. Cr.)**

Particulars	KTPS			HTPS			DSPM			KWTPP			Hasdeo Bango			ABVTPP		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Depreciation	60.01	48.90	48.45	25.38	20.44	20.41	128.66	128.17	128.17	191.07	184.79	184.79	2.65	2.65	2.65	-	444.49	438.25
Interest & Finance Charges	5.30	3.33	3.32	19.55	10.87	10.88	69.22	61.87	61.87	309.73	244.35	244.43	0.82	0.64	0.64	-	723.28	712.57
Return on Equity	25.06	28.57	28.57	61.66	57.56	57.56	107.98	107.80	107.80	91.38	95.24	95.13	5.85	5.85	5.85	-	160.06	157.81
O&M Expenses	218.92	188.38	188.38	327.81	280.62	280.62	167.90	126.23	126.23	104.92	54.77	54.77	14.02	9.93	9.93	-	156.81	156.81
Impact of Wage Revision	10.48	-	-	27.06	-	-	4.57	-	-	2.92	-	-	1.08	-	-	-	-	-
Additional R&M Expenses	1.00	-	-	31.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest on Working Capital	15.97	16.22	15.77	28.04	30.65	29.79	23.74	22.00	21.49	17.60	20.82	20.31	0.59	0.86	0.73	-	44.63	43.60
Less: Non-Tariff Income	8.12	1.84	1.84	15.91	3.85	3.85	9.21	1.82	1.82	4.32	2.09	2.09	-	-	-	-	8.29	8.29
<b>Total Annual Capacity Charge</b>	<b>328.62</b>	<b>283.56</b>	<b>282.66</b>	<b>504.86</b>	<b>396.29</b>	<b>395.41</b>	<b>492.86</b>	<b>444.24</b>	<b>443.74</b>	<b>713.30</b>	<b>597.87</b>	<b>597.33</b>	<b>25.00</b>	<b>19.93</b>	<b>19.80</b>	-	<b>1,520.98</b>	<b>1,500.75</b>
Cost of Coal	318.00	283.57	283.57	717.59	694.69	694.69	517.34	499.46	499.46	438.47	472.93	472.93	-	-	-	-	788.68	788.68
Cost of Oil	12.46	10.36	10.36	21.30	14.61	14.61	6.01	4.05	4.05	7.24	3.30	3.30	-	-	-	-	25.00	25.00
<b>Total Energy Charges</b>	<b>330.46</b>	<b>293.93</b>	<b>293.93</b>	<b>738.89</b>	<b>709.30</b>	<b>709.30</b>	<b>523.35</b>	<b>503.51</b>	<b>503.51</b>	<b>445.71</b>	<b>476.24</b>	<b>476.24</b>	-	-	-	-	<b>813.68</b>	<b>813.68</b>
Pension and Gratuity Contribution	50.59	50.59	50.59	52.37	52.37	52.37	8.60	8.60	8.60	8.47	8.47	8.47	3.50	3.50	3.50	-	19.13	19.13
Net prior period (income)/expenses	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Aggregate Revenue Requirement</b>	<b>709.67</b>	<b>628.08</b>	<b>627.18</b>	<b>1,296.12</b>	<b>1,157.96</b>	<b>1,157.07</b>	<b>1,024.81</b>	<b>956.36</b>	<b>955.85</b>	<b>1,167.48</b>	<b>1,082.59</b>	<b>1,082.05</b>	<b>28.49</b>	<b>23.42</b>	<b>23.30</b>	-	<b>2,353.79</b>	<b>2,333.56</b>

**Table 3-48: Approved ARR for CSPGCL's Generating Stations for FY 2018-19 (Rs. Cr.)**

Particulars	KTPS			HTPS			DSPM			KWTPP			Hasdeo Bango			ABVTPP		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Depreciation	60.01	52.65	52.21	34.59	22.05	22.05	128.93	128.85	128.85	192.48	185.29	185.29	2.65	2.65	2.65	464.67	453.51	447.28
Interest & Finance Charges	1.80	0.64	0.43	30.91	10.80	10.80	53.86	48.72	48.73	287.99	225.18	225.42	0.48	0.37	0.37	723.99	692.37	682.33
Return on Equity	19.95	21.26	21.26	69.62	58.98	58.98	108.21	108.40	108.41	91.80	95.81	95.45	5.85	5.85	5.85	167.67	163.64	161.39
O&M Expenses	198.74	164.31	164.31	354.74	289.89	289.89	180.95	144.00	144.00	113.45	69.93	69.93	15.20	10.47	10.47	203.54	173.37	173.37
Impact of Wage Revision	11.43	-	-	29.51	-	-	4.98	-	-	3.18	-	-	1.17	-	-	-	-	-
Additional R&M Expenses	0.00	-	-	3.26	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Interest on Working Capital	13.87	13.39	14.09	29.08	30.01	30.71	24.17	21.33	21.75	17.65	19.80	20.22	0.62	0.68	0.78	46.21	46.46	47.29
Less: Non-Tariff Income	8.67	6.33	6.33	16.98	12.49	12.49	9.84	6.63	6.63	4.61	6.84	6.84		0.03	0.03	0.00	16.37	16.37
<b>Total Annual Capacity Charge</b>	<b>297.13</b>	<b>245.92</b>	<b>245.97</b>	<b>534.74</b>	<b>399.24</b>	<b>399.95</b>	<b>491.26</b>	<b>444.68</b>	<b>445.11</b>	<b>701.94</b>	<b>589.17</b>	<b>589.48</b>	<b>25.97</b>	<b>19.99</b>	<b>20.09</b>	<b>1,606.08</b>	<b>1,512.98</b>	<b>1,495.30</b>
Cost of Coal	253.10	280.51	280.51	717.59	732.89	732.89	517.34	513.12	513.12	438.47	493.96	493.96			0.00		964.04	964.04
Cost of Oil	9.92	11.20	11.20	21.30	11.84	11.84	6.01	5.53	5.53	7.24	6.42	6.42			0.00		25.39	25.39
<b>Total Energy Charges</b>	<b>263.02</b>	<b>291.70</b>	<b>291.70</b>	<b>738.89</b>	<b>744.74</b>	<b>744.74</b>	<b>523.35</b>	<b>518.65</b>	<b>518.65</b>	<b>445.71</b>	<b>500.38</b>	<b>500.38</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>884.50</b>	<b>989.43</b>	<b>989.43</b>
Pension and Gratuity Contribution	55.17	55.17	55.17	57.11	57.11	57.11	9.38	9.38	9.38	9.24	9.24	9.24	3.81	3.81	3.81	20.86	20.86	20.86
Net prior period (income)/expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.73	11.31	-	-	0.00	0.00	0.00	0.00
<b>Aggregate Revenue Requirement</b>	<b>615.32</b>	<b>592.79</b>	<b>592.85</b>	<b>1,330.74</b>	<b>1,201.09</b>	<b>1,201.80</b>	<b>1,023.99</b>	<b>972.71</b>	<b>973.13</b>	<b>1,156.89</b>	<b>1,106.51</b>	<b>1,110.41</b>	<b>29.78</b>	<b>23.80</b>	<b>23.90</b>	<b>2,511.44</b>	<b>2,523.27</b>	<b>2,505.59</b>

### 3.24 Sharing of Gains and Losses

Regulation 11 of the MYT Regulations, 2015 specifies as under:

*“11. CONTROLLABLE AND UN-CONTROLLABLE FACTORS*

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

- (a) Force Majeure events;*
- (b) Change in law*

... ..

*11.2 For the purpose of these Regulations, the term “Controllable factors” shall comprise of the following:*

...

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

...

*(f) Variation in Wires Availability and Supply Availability”*

Further, Regulation 12 of the MYT Regulations, 2015 specifies as under:

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

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

Regulation 13 of the MYT Regulations, 2015 specifies as under:

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

*The mechanism for sharing of aggregate net gain on account of over achievement in reference to the target set in tariff order for efficiency linked controllable items other than energy losses computed in accordance to Regulation 71 shall be passed on to the beneficiary / consumer(s) and retained by the generating company or the licensee or*



*SLDC, as the case may be, in the ratio of 50:50 or as may be specified in the Order of the Commission passed under these Regulations.*

*Provided that the mechanism for sharing of aggregate net gain on account of over achievement in reference to the target set in tariff order for energy losses computed in accordance to Regulation 71 shall be passed on to the consumer(s) and retained by the licensee, as the case may be, in the ratio of 2: 1 or as may be specified in the Order of the Commission passed under these Regulations.*

*13.2. The mechanism for sharing of aggregate net loss on account of under achievement in reference to the target set in tariff order for efficiency linked controllable items shall be passed on to the beneficiary / consumer(s) and retained by the generating company or the licensee, as the case may be, in the ratio of 50:50 or as may be specified in the Order of the Commission passed under these Regulations."*

#### **CSPGCL's Submission**

CSPGCL submitted that Regulation 13 specifies the method for sharing of gains and losses. Further, in compliance with Regulations 32 and 35 of MYT Regulations, 2015, CSPGCL has segregated the Pension Fund Contribution from AFC and considered it as a separate line item. Further, CSPGCL submitted that it has excluded Employee Cost from O&M Cost for the purpose of sharing of Gains / Losses as per Amendment to the MYT Regulations, 2015 dated June 16, 2017. Except for the same, CSPGCL submitted that it has followed the methodology followed in previous orders for sharing of Gains / Losses. CSPGCL has also submitted that in line with previous Order, DSM charges has been shared in the 50:50 ratio for both FY 2017-18 and FY 2018-19.

CSPGCL submitted the sharing of gains of Rs. 60.57 Cr. for FY 2017-18 and Rs. 101.65 Cr. for FY 2018-19.

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

The sharing of gains and losses on account of controllable factors has been computed in accordance with the methodology submitted by CSPGCL. The contribution to Pension & Gratuity Fund and Employee Cost has been excluded from the calculations, and gains/losses have been shared in the ratio of 50:50 in accordance

with the MYT Regulations, 2015. Further, sharing of gains and losses of DSM Charges has also been considered.

The sharing of gains and losses after final True-up for FY 2017-18 FY 2018-19 is as shown in the Table below:

**Table 3-49: Approved Sharing of Gains and Losses for final True-up for FY 2017-18 for CSPGCL's Generating Stations**

Particulars	Units	FY 2017-18				
		KTPS	HTPS	DSPM	KWTPP	ABVTPP
<b>Fixed Charges @ NPAF</b>						
Installed capacity	MW	387.53	840.00	500.00	500.00	1000.00
NPAF	%	66.19%	78.69%	85.00%	85.00%	69.47%
Actual PAF achieved (billed)	%	51.82%	75.49%	96.30%	92.10%	65.31%
Normative aux. consumption	%	11.25%	9.70%	9.00%	5.25%	5.25%
Actual aux cons	%	13.23%	9.90%	7.92%	4.41%	6.61%
Normative aux. consumption	MU	252.80	561.66	335.07	195.46	319.51
Actual aux cons	MU	236.49	524.20	320.13	175.62	377.83
Normative Net Generation	MU	1994.32	5228.66	3387.93	3527.54	5766.41
Actual net generation	MU	1551.30	4773.37	3722.87	3810.45	5342.17
<b>Total generation available for Fuel Cost recovery</b>	<b>MU</b>	<b>1551.30</b>	<b>4773.37</b>	<b>3722.87</b>	<b>3810.45</b>	<b>5342.17</b>
<b>Fixed Cost (norm-wise)</b>						
Depreciation	Rs Cr	48.45	20.41	128.17	184.79	438.25
Interest on Loan and Finance charges	Rs Cr	3.32	10.88	61.87	244.35	712.57
Return on Equity	Rs Cr	28.57	57.56	107.80	95.24	157.81
Interest on Working Capital	Rs Cr	15.77	29.79	21.49	20.31	43.60
O & M Expenses	Rs Cr	221.52	297.78	153.04	90.29	180.58
Less - Non-Tariff Income	Rs Cr	1.84	3.85	1.82	2.09	8.29
<b>Fixed Cost allowed on Normative Basis</b>	<b>Rs Cr</b>	<b>315.80</b>	<b>412.57</b>	<b>470.55</b>	<b>632.89</b>	<b>1524.52</b>
Fixed cost expenditure excluding O&M	Rs Cr	94.28	114.78	317.51	542.59	1343.93
Normative Fixed Cost (Cr. Rs/% of PAF) excluding O&M	Rs Cr./%PAF	1.42	1.46	3.74	6.38	19.34
Pro-rata Fixed cost allowable from Actual PAF	Rs Cr	73.81	110.12	359.72	587.95	1263.37
<b>Fixed cost gain from normative cost</b>	<b>Rs Cr</b>	<b>(20.47)</b>	<b>(4.66)</b>	<b>42.21</b>	<b>45.35</b>	<b>(80.56)</b>
<b>Total Gain/(Loss)</b>	<b>Rs Cr</b>	<b>(18.13)</b>				
<b>R&amp;M and A&amp;G expenses</b>						
Normative R&M and A&G Cost allowed	Rs Cr.	69.88	110.27	86.30	51.47	102.93

Particulars	Units	FY 2017-18				
		KTPS	HTPS	DSPM	KWTPP	ABVTPP
Normative R&M and A&G Cost (Cr. Rs/% of PAF)	Rs Cr./%PAF	1.06	1.40	1.02	0.61	1.48
Pro-rata R&M and A&G cost allowable from actual PAF	Rs Cr.	54.71	105.80	97.77	55.77	96.76
Actual R&M and A&G expenditure	Rs Cr.	66.39	98.99	61.77	20.48	71.60
<b>Difference of recovery and expenditure</b>	<b>Rs Cr</b>	<b>(11.68)</b>	<b>6.80</b>	<b>36.00</b>	<b>35.29</b>	<b>25.16</b>
<b>Total Gain/(Loss)</b>	<b>Rs Cr</b>	<b>91.58</b>				
<b>Secondary Fuel Cost</b>						
Normative SFC	Rs Cr	16.31	23.82	9.06	8.51	16.19
Normative SF Cost derived from NPLF	Rs/kwh	0.08	0.05	0.03	0.02	0.03
Secondary fuel cost recovery from actual generation	Rs Cr	12.69	21.74	9.96	9.19	15.00
Actual SFC incurred	Rs Cr	10.36	14.61	4.05	3.30	25.00
<b>Savings due to performance improvement</b>	<b>Rs Cr</b>	<b>2.32</b>	<b>7.14</b>	<b>5.91</b>	<b>5.88</b>	<b>(10.00)</b>
<b>Total Impact of Savings/Excess Expenditure due to SFC</b>	<b>Rs Cr</b>	<b>11.26</b>				
<b>Coal Cost (primary fuel)</b>						
Normative Coal Cost	Rs Cr	363.33	757.07	472.14	436.88	842.56
Normative ECR (Coal)	Rs/kwh	1.82	1.45	1.39	1.24	1.46
Normative fuel cost on actual sent out	Rs Cr	282.62	691.15	518.81	471.92	780.57
Actual fuel cost	Rs Cr	283.57	694.69	499.46	472.93	788.68
<b>Coal Cost Surplus/(deficit)</b>	<b>Rs Cr</b>	<b>(0.95)</b>	<b>(3.54)</b>	<b>19.35</b>	<b>(1.02)</b>	<b>(8.11)</b>
<b>Total Impact of Savings/Excess Expenditure due to Coal</b>	<b>Rs Cr</b>	<b>5.72</b>				
<b>Total plant wise impact of gain/ loss</b>	<b>Rs Cr</b>	<b>(30.78)</b>	<b>5.74</b>	<b>103.47</b>	<b>85.51</b>	<b>(73.51)</b>
<b>Total Impact of Savings/Excess Expenditure</b>	<b>Rs Cr</b>	<b>90.43</b>				
<b>Gains/(Losses) for Hasdeo Bango</b>	<b>Rs Cr</b>	<b>0.56</b>				
<b>Plant-wise impact of DSM Charges</b>	<b>Rs Cr</b>	1.04	14.00	3.13	12.05	1.26
<b>Total Impact of DSM Charges</b>	<b>Rs Cr</b>	<b>31.47</b>				
<b>Net total Impact Savings/Excess Expenditure</b>	<b>Rs Cr</b>	<b>122.46</b>				
<b>Net applicable Gain/(Loss) to CSPGCL on 50:50 basis</b>	<b>Rs Cr</b>	<b>61.23</b>				

**Table 3-50: Approved Sharing of Gains and Losses for final True-up for FY 2018-19 for CSPGCL's Generating Stations**

Particulars	Units	FY 2018-19				
		KTPS	HTPS	DSPM	KWTPP	ABVTPP
<b>Fixed Charges @ NPAF</b>						
Installed capacity	MW	252.50	840.00	500.00	500.00	1000.00
NPAF	%	69.50%	78.69%	85.00%	85.00%	76.50%
Actual PAF achieved (billed)	%	61.07%	76.45%	92.62%	92.24%	73.06%
Normative aux. consumption	%	11.25%	9.70%	9.00%	5.25%	5.25%
Actual aux cons	%	12.65%	9.43%	7.98%	4.85%	5.65%
Normative aux. consumption	MU	172.94	561.66	335.07	195.46	351.82
Actual aux cons	MU	195.29	516.79	305.40	194.48	362.58
Normative Net Generation	MU	1364.44	5228.66	3387.93	3527.54	6349.58
Actual net generation	MU	1348.09	4961.96	3522.74	3815.49	6054.70
<b>Total generation available for Fuel Cost recovery</b>	<b>MU</b>	<b>1348.09</b>	<b>4961.96</b>	<b>3522.74</b>	<b>3815.49</b>	<b>6054.70</b>
<b>Fixed Cost (norm-wise)</b>						
Depreciation	Rs Cr	52.21	22.05	128.85	185.29	447.28
Interest on Loan and Finance charges	Rs Cr	0.43	10.80	48.73	225.42	682.33
Return on Equity	Rs Cr	21.26	58.98	108.41	95.45	161.39
Interest on Working Capital	Rs Cr	14.09	30.71	21.75	20.22	47.29
O & M Expenses	Rs Cr	193.81	312.77	160.41	94.81	189.61
Less - Non-Tariff Income	Rs Cr	6.33	12.49	6.63	6.84	16.37
<b>Fixed Cost allowed on Normative Basis</b>	<b>Rs Cr</b>	<b>275.47</b>	<b>422.83</b>	<b>461.52</b>	<b>614.35</b>	<b>1511.54</b>
Fixed cost expenditure excluding O&M	Rs Cr	81.66	110.06	301.11	519.54	1321.87
Normative Fixed Cost (Cr. Rs/% of PAF) excluding O&M	Rs Cr./%PAF	1.17	1.40	3.54	6.11	17.28
Pro-rata Fixed cost allowable from Actual PAF	Rs Cr	71.75	106.92	328.10	563.80	1262.43
<b>Fixed cost gain from normative cost</b>	<b>Rs Cr</b>	<b>(9.91)</b>	<b>(3.13)</b>	<b>26.99</b>	<b>44.25</b>	<b>(59.44)</b>
<b>Total Gain/(Loss)</b>	<b>Rs Cr</b>	<b>(1.24)</b>				
<b>R&amp;M and A&amp;G expenses</b>						
Normative R&M and A&G Cost allowed	Rs Cr.	59.97	115.04	90.03	54.04	108.08
Normative R&M and A&G Cost (Cr. Rs/% of PAF)	Rs Cr./%PAF	0.86	1.46	1.06	0.64	1.41
Pro-rata R&M and A&G cost allowable from actual PAF	Rs Cr.	52.69	111.77	98.10	58.64	103.22
Actual R&M and A&G expenditure	Rs Cr.	48.15	101.64	71.91	32.16	85.30
<b>Difference of recovery and expenditure</b>	<b>Rs Cr</b>	<b>4.54</b>	<b>10.13</b>	<b>26.20</b>	<b>26.48</b>	<b>17.92</b>
<b>Total Gain/(Loss)</b>	<b>Rs Cr</b>	<b>85.26</b>				

Particulars	Units	FY 2018-19				
		KTPS	HTPS	DSPM	KWTPP	ABVTPP
<b>Secondary Fuel Cost</b>						
Normative SFC	Rs Cr	14.65	28.72	11.31	10.26	16.02
Normative SF Cost derived from NPLF	Rs/kwh	0.11	0.05	0.03	0.03	0.03
Secondary fuel cost recovery from actual generation	Rs Cr	14.47	27.25	11.76	11.09	15.28
Actual SFC incurred	Rs Cr	11.20	11.84	5.53	6.42	25.39
<b>Savings due to performance improvement</b>	<b>Rs Cr</b>	<b>3.28</b>	<b>15.41</b>	<b>6.23</b>	<b>4.68</b>	<b>(10.12)</b>
<b>Total Impact of Savings/Excess Expenditure due to SFC</b>	<b>Rs Cr</b>	<b>19.47</b>				
<b>Coal Cost (primary fuel)</b>						
Normative Coal Cost	Rs Cr	285.45	792.13	516.72	456.48	1009.87
Normative ECR (Coal)	Rs/kwh	2.09	1.51	1.53	1.29	1.59
Normative fuel cost on actual sent out	Rs Cr	282.03	751.72	537.28	493.75	969.60
Actual fuel cost	Rs Cr	280.51	732.89	513.12	493.96	964.04
<b>Coal Cost Surplus/(deficit)</b>	<b>Rs Cr</b>	<b>1.52</b>	<b>18.83</b>	<b>24.16</b>	<b>(0.22)</b>	<b>5.56</b>
<b>Total Impact of Savings/Excess Expenditure due to Coal</b>	<b>Rs Cr</b>	<b>49.85</b>				
<b>Total plant wise impact of gain/ loss</b>	<b>Rs Cr</b>	<b>(0.57)</b>	<b>41.23</b>	<b>83.58</b>	<b>75.20</b>	<b>(52.71)</b>
<b>Total Impact of Savings/Excess Expenditure</b>	<b>Rs Cr</b>	<b>153.35</b>				
<b>Gains/(Losses) for Hasdeo Bango</b>	<b>Rs Cr</b>	<b>0.48</b>				
<b>Plant-wise impact of DSM Charges</b>	<b>Rs Cr</b>	1.07	25.50	17.01	13.38	3.51
<b>Total Impact of DSM Charges</b>	<b>Rs Cr</b>	<b>60.46</b>				
<b>Net total Impact Savings/Excess Expenditure</b>	<b>Rs Cr</b>	<b>214.29</b>				
<b>Net applicable Gain/(Loss) to CSPGCL on 50:50 basis</b>	<b>Rs Cr</b>	<b>107.15</b>				

From the above table, it is seen that CSPGCL has earned a gain of Rs. 122.46 Cr. in FY 2017-18 and gain of Rs. 214.29 Cr. in FY 2018-19. As per the provisions of the Regulations, 50% of this gain has to be retained by CSPGCL and remaining 50% will be passed on to the consumers of the State.

Accordingly, the Commission approves the gain of Rs. 61.23 Cr. for FY 2017-18 and gain of Rs. 107.15 Cr. for FY 2018-19, after undertaking the sharing of gains and losses.

### 3.25 Revenue Gap/(Surplus) for CSPGCL for FY 2017-18 and FY 2018-19

#### Commission's view

The Commission has considered the revenue from sale of power based on the audited accounts submitted by CSPGCL for FY 2017-18 and FY 2018-19 respectively.

The Water Charges, Start-up power and SLDC Charges have been considered separately for respective years. The revenue from DSM Charges has been considered for respective Generating Station.

In view of the above, the Revenue Gap/(Surplus) for CSPGCL for FY 2017-18 and FY 2018-19 after final truing up has been approved as shown in the following Table:

**Table 3-51: Revenue Gap/(Surplus) after Final True-up for FY 2017-18 and FY 2018-19 for CSPGCL (Rs. Cr.)**

Particulars	FY 2017-18		FY 2018-19	
	Petition	Approved	Petition	Approved
ARR for KTPS	628.08	627.18	592.79	592.85
ARR for HTPS	1,157.96	1,157.07	1,201.09	1,201.80
ARR for DSPM TPS	956.36	955.85	972.71	973.13
ARR for KWTPP	1,082.59	1,082.05	1,106.51	1,110.41
ARR for ABVTPP	2,353.79	2,333.56	2,523.27	2,505.59
ARR for Hasdeo Bango	23.42	23.30	23.80	23.90
<b>Total ARR for Generating Stations of CSPGCL</b>	<b>6,202.21</b>	<b>6,179.01</b>	<b>6,420.17</b>	<b>6,407.68</b>
Sharing of Gain/(Losses)	60.57	61.23	101.65	107.16
Petition Filing Fee	0.42	0.42	0.391	0.39
Impact of APTEL Judgement and Revenue Gap	329.45	329.45	(279.52)	(279.52)
Water and SLDC Charges	132.52	132.52	150.54	150.54
Income Tax	52.79	52.79	76.92	76.92
<b>Total ARR</b>	<b>6,777.95</b>	<b>6,755.42</b>	<b>6,470.15</b>	<b>6,463.17</b>
Revenue from sale of power for KTPS	578.63	578.63	617.02	617.02
Revenue from sale of power for HTPS	1,270.94	1,270.94	1,373.02	1,373.02
Revenue from sale of power for DSPM TPS	1,024.77	1,024.77	1,045.68	1,045.68
Revenue from sale of power for KWTPP	1,204.15	1,204.15	1,221.49	1,221.49
Revenue from sale of power for ABVTPP	2,239.50	2,239.50	2,521.02	2,521.02
Revenue from sale of power for Hasdeo Bango	23.42	23.42	26.81	26.81
<b>Revenue from Sale of Power</b>	<b>6,341.41</b>	<b>6,341.41</b>	<b>6,805.05</b>	<b>6,805.05</b>
Water, SLDC charges & start up power for recovery	132.52	132.52	150.54	150.54
Recovery Impact of APTEL judgement & prev year revenue gap	329.45	329.45	(279.52)	(279.52)
<b>Total Recovery &amp; Revenue</b>	<b>6,803.37</b>	<b>6,803.37</b>	<b>6,676.07</b>	<b>6,676.07</b>
Standalone ARR Gap/(Surplus)for the year	<b>(25.42)</b>	<b>(47.96)</b>	<b>(205.92)</b>	<b>(212.90)</b>

**The Commission approves Standalone Surplus of Rs. 47.92 Cr. after Final Truing-up of FY 2017-18 and Standalone surplus of Rs. 212.90 Cr. after Truing-up of FY 2018-19.**

The Commission has considered carrying cost on the Revenue Gap arrived after final Truing-up of FY 2017-18 and FY 2018-19. The Commission has considered the interest rates as Base rates plus 350 basis points for respective years as specified in the Regulations.

**Accordingly, the Revenue Surplus including holding cost, which is required to be factored in the revenue requirement of CSPDCL for FY 2020-21 works out to Rs. 225.51 Cr. (i.e., Revenue Gap of Rs. 44.32 Cr. + Revenue Surplus of Rs. 269.83 Cr.)**

**The Commission approves cumulative revenue surplus of Rs. 225.51 Cr. up to FY 2020-21 for CSPGCL. This revenue gap has been adjusted in ARR of CSPDCL for FY 2020-21 as discussed in subsequent chapter.**

## 4 FINAL TRUE-UP OF ARR FOR FY 2017-18- FY 2018-19 FOR CSPTCL

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### 4.1 Background

The Commission notified the CSERC MYT Regulations, 2015 for the third MYT control period from FY 2016-17 to FY 2020-21 on September 9, 2015. Subsequently, the Commission notified the First Amendment to CSERC MYT Regulations on June 16, 2017. The Commission issued the MYT Order on April 30, 2016 approving the ARR of CSPTCL for the Control Period from FY 2016-17 to FY 2020-21 and Transmission tariff for FY 2016-17.

Subsequently, based on provisional accounts for FY 2017-18 the Commission undertook provisional true-up for FY 2017-18 for CSPTCL in the tariff order dated February 28, 2019. Now, based on audited accounts of FY 2017-18 and FY 2018-19 CSPTCL has submitted the petition for final true-up of ARR for FY 2017-18 and FY 2018-19 respectively, along with determination of transmission tariff for FY 2020-21.

Regulation 10.4 of the CSERC MYT Regulations, 2015 specifies as under:

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

- (d) A comparison of the audited performance of the applicant for the previous financial year(s) with the approved forecast of such previous financial year(s), subject to the prudence check including pass-through of impact of uncontrollable factors;*
- (e) Review of compliance with directives issued by the Commission from time to time;*
- (f) Other relevant details, if any.”*

In accordance with the above Regulation, in the present order, final true-up of ARR for FY 2017-18 and FY 2018-19 is undertaken and it based on audited accounts as submitted by CSPTCL.

In this chapter, the Commission has analysed all the elements of actual expenditure and revenue of CSPTCL for FY 2017-18 and FY 2018-19 and undertaken the final true-up of expenses and revenue in accordance with Regulation 10 of the CSERC MYT Regulations, 2015. The Commission has approved the sharing of gains and losses on account of controllable factors between CSPTCL and its beneficiaries, in accordance with Regulation 13 of the CSERC MYT Regulations, 2015.



## 4.2 Transmission System of CSPTCL

The physical status of transmission system of CSPTCL as on March 31, 2018 and March 31, 2019, as submitted by CSPTCL, is shown in the Table below:

**Table-4-1: Physical status of transmission system of CSPTCL as on March 31, 2018 and March 31, 2019**

Particulars	Units	As on March 31, 2018	As on March 31, 2019
<b>A. EHV Transmission Lines</b>			
400 kV	ckt. km.	1,915.52	1915.52
220 kV	ckt. km.	3,518.00	3727.02
132 kV	ckt. km.	6,078.00	6657.19
+/-100kV HVDC	ckt. km	360.00	360.00
<b>B. EHV Substations</b>			
400 kV	No.	3	3
220 kV	No.	20	23
132 kV	No.	75	92
+/-100kV HVDC	No.	1	1
<b>C. Transformation Capacity of EHV Substations</b>			
400/220 kV	MVA	1,890	2205
220/132 kV	MVA	6,670	7790
132/33kV	MVA	6,583	8069
+/-100kV HVDC	MVA	243	243

## 4.3 Transmission Losses

### CSPTCL's Submission

CSPTCL submitted that various factors contribute to transmission losses, such as increase in energy demand in the State along with the increase in short-term open access consumers, change in spatial distribution in the load within the State, change in quality, load cycle, operating temperature and frequency of the system. CSPTCL submitted that based on the actual reading of the energy meters installed at the various points of the State's periphery, the actual Transmission Loss for FY 2017-18 and FY 2018-19 was 3.05% and 3.09%, respectively, as against the Transmission Loss of 3.22% approved in the MYT Order dated April 30, 2016. The computation of the Transmission Losses submitted by CSPTCL is shown in the Table below:

**Table 4-2: Transmission Losses for FY 2016-17 and FY 2017-18 as submitted by CSPTCL**

Sr. No.	Particulars	FY 2017-18	FY 2018-19
1	State Generation Ex-Bus at 132 kV and above (MU)	19,425.19	19,945.03
2a	Import from CTU Grid at CG Periphery at 132 kV and above (MU)	16,293.16	15603.65
2b	Export to CTU Grid at CG Periphery at 132 kV and above (MU)	11,964.52	9624.08
2	Net Drawal from CTU Grid at State Periphery at 132 kV and above (MU)	4,328.64	5,979.57
3	IPPs/CPP Injection in CSPTCL System at 132 kV and above (MU)	1,126.98	889.43
4	Total Injection at State Grid of STU (MU) (1+2+3)	24,880.81	26,814.03
5	EHV Sales from Sub Station (MU)	2,454.87	2,879.72
6	Net Output to DISCOM (MU)	21,667.68	23,106.23
7	Total Output from CSPTCL System (MU) (5+6)	24,122.55	25,985.95
8	Transmission Loss (MU) (4-7)	758.26	828.08
9	Transmission Loss (%) (8/4*100)	3.05%	3.09%

**Commission's View**

In the MYT Order dated April 30, 2016, the transmission losses were approved as 3.22% for each year of the control period. The details of source-wise actual injection of energy, actual EHV sales and JMR readings has been examined.

It is observed that there is difference between the EHV sales considered by CSPTCL and CSPDCL. While undertaking the provisional truing up for FY 2017-18, CSPTCL had submitted the reconciliation and clarified that due to incorporation of Bhilai Steel Plant (BSP) export and import in drawal of CTU grid to Chhattisgarh system, BSP consumption and BSP Oxygen Plant consumption is being deducted from EHV sales for determining the transmission losses. Also, the energy sales from 2x500 MW Marwa Plant to CSPDCL is being deducted from EHV sales, as CSPDCL purchases electricity generated on ex-bus basis and hence the electricity so injected into grid can flow anywhere to the grid. Hence, the same has not been considered for computation of transmission losses. Further, as regards the difference observed against total output from CSPTCL system, CSPTCL submitted that it has considered 33 kV output of 132/33 kV power transformer for computation of transmission loss, while CSPDCL has taken the reading of energy export from 33 kV feeders connected to 33 kV bus of EHV substation for computation of distribution loss.

The Commission notes the submission of CSPTCL and is of view that the methodology adopted by both CSPTCL and CSPDCL for computation of transmission losses and distribution losses, respectively, is correct. Hence, for the final truing-up of FY 2017-18 and FY 2018-19, the Commission approves the transmission loss as submitted by CSPTCL.

Accordingly, the Commission approves Transmission Loss of 3.05% for FY 2017-18 and 3.09% for FY 2018-19.

#### 4.4 Operations and Maintenance (O&M) Expenses

##### CSPTCL's Submission

##### *Employee Expenses*

CSPTCL submitted that based on audited accounts, the gross employee expenses was Rs. 178.31 Cr. for FY 2017-18 and Rs. 208.74 Cr. for FY 2018-19 as against the employee expenses of Rs. 169.67 Cr. and Rs. 185.02 respectively, approved in the MYT Order. The details are as shown in the following Table:

**Table 4-3: Gross Employee Expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18	FY 2018-19
		Actual	Actual
1	Gross Employee Expenses (CSPTCL + SLDC) excluding terminal benefits*	187.30	217.86
2	Less: SLDC Employee Expenses (including interim wage relief)	8.99	9.12
3	CSPTCL Gross Employee Expenses	178.31	208.74

\* Includes interim relief paid to the employees during FY 2017-18

Further, no provision against interim relief has been made in the audited accounts for FY 2017-18.

The capitalisation of employee expenses has been considered as Rs. 12.56 Cr. for FY 2017-18 and as Rs. 13.36 Cr. for FY 2018-19. CSPTCL requested the Commission to approve net employee expenses (excluding capitalization) of Rs. 165.76 Cr. (178.31–12.56) for FY 2017-18 and Rs.195.37Cr. (net of capitalization) for FY 2017-18.

CSPTCL submitted the details of sanctioned employee strength, current employee strength, and vacant positions for different class of employees, as on March 31, 2018 and March 31, 2019, as shown in the Table below:

**Table 4-4: Employee strength at CSPTCL as on 31<sup>st</sup> March 2018 and 31<sup>st</sup> March 2019**

Sr. No.	Particular	Sanctioned as on 2018	Working		Sanctioned as on 2019	Vacant	
			As on 31st March 2018	As on 31st March 2019		As on 31st March 2018	As on 31st March 2019
<b>CSPTCL</b>							
1	Class I	131	108	113	155	23	42
2	Class II	235	147	181	235	88	54
3	Class III	1448	691	777	1,467	757	690
4	Class IV	1491	631	534	1,060	860	526
5	<b>Total</b>	<b>3305</b>	<b>1577</b>	<b>1,605</b>	<b>2,917</b>	<b>1,728</b>	<b>1,312</b>
<b>SLDC</b>							
1	Class I	20	17	13	20	3	7
2	Class II	24	17	16	24	7	8
3	Class III	21	15	15	21	6	6
4	Class IV	8	4	3	8	4	5
5	<b>Total</b>	<b>73</b>	<b>53</b>	<b>47</b>	<b>73</b>	<b>20</b>	<b>26</b>
<b>CSPTCL + SLDC</b>							
1	Class I	151	125	126	175	26	49
2	Class II	259	164	197	259	95	62
3	Class III	1,469	706	792	1,488	763	696
4	Class IV	1,499	635	537	1,068	864	531
5	<b>Total</b>	<b>3,378</b>	<b>1,630</b>	<b>1,652</b>	<b>2,990</b>	<b>1,748</b>	<b>1,338</b>

CSPTCL submitted that the vacant positions will be filled in the near future and employee expenses will increase, making it difficult to manage at the level approved by the Commission. CSPTCL further submitted that the Wage Revision Committee has recommended that the pay scale needs to be revised when the Seventh Central Pay Commission recommendations are available and implemented by Government of India for their employees. The salary structure has been recommended to be aligned to Central Govt. Pay scale from the date from which Central Govt. revises the pay scale of their employees including merger of DA with salary. CSPTCL requested the Commission to allow the same when the effect takes place.

#### **A&G Expenses and R&M Expenses**

CSPTCL submitted A&G expenses and R&M expenses (excluding expenses on account of SLDC) for FY 2017-18 and FY 2018-19, as shown in the Table below:

**Table 4-5: Gross R&M expenses and A&G expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18	FY 2018-19
		Actual	Actual
1	Gross A&G Expenses	46.68	49.09
2	Less: SLDC Expenses	0.96	0.91
<b>3</b>	<b>CSPTCL Gross A&amp;G Expenses</b>	<b>45.72</b>	<b>48.18</b>
4	Gross R&M Expenses	42.25	46.74
5	Less: SLDC Expenses	0.61	1.37
<b>6</b>	<b>CSPTCL Gross R&amp;M Expenses</b>	<b>41.64</b>	<b>45.37</b>

CSPTCL considered the capitalisation of A&G expenses as Rs. 2.74Cr. for FY 2017-18 and Rs. 3.19 Cr. for FY 2018-19. Further, CSPTCL submitted the comparison of actual O&M expenses vis-a-vis O&M expenses approved in MYT Order, as shown in the following Table:

**Table 4-6: O&M Expenses as submitted by CSPTCL for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particular	FY 2017-18		FY 2018-19	
		MYT Order	Petition	MYT Order	Petition
1	Gross Employee Expenses	169.67	178.31	185.02	208.74
2	Gross A&G Expenses	30.92	45.72	33.01	48.18
3	Gross R&M Expenses	31.69	41.64	33.84	45.37
4	Interim Wage Relief amount	12.81	-	13.97	-
<b>5</b>	<b>Gross O&amp;M Expenses (excluding SLDC)</b>	<b>245.09</b>	<b>265.68</b>	<b>265.84</b>	<b>302.29</b>
6	Employee expenses capitalized	-	12.56	-	13.36
7	A&G Expenses capitalized	-	2.74	-	3.19
<b>8</b>	<b>Net O&amp;M Expenses (excluding SLDC)</b>	<b>245.09</b>	<b>250.38</b>	<b>265.84</b>	<b>285.73</b>

#### *Computation of Normative O&M Expenses*

CSPTCL submitted that CSERC MYT Regulations, 2015 allows incentive/disincentive for better/under performance in operational norms so that such efforts are appropriately recognized and promoted, thereby, ensuring improved

efficiency on a sustainable basis. Regulation 13.1 of CSERC MYT Regulations, 2015, as per amendment dated June 16, 2017 specifies as under:

*“Provided further that employee cost shall not be factored in for sharing of gains or losses on account of operation & maintenance expenses,”*

Accordingly, the employee expenses have been considered based on actual and have not been subjected to sharing of gains or losses. CSPTCL requested the Commission to approve actual employee expenses for FY 2017-18 and FY 2018-19 as submitted earlier.

CSPTCL submitted that the normative A&G expenses and R&M expenses for FY 2017-18 and FY 2018-19 have been computed as per the Regulations.

CSPTCL has computed the base normative A&G Expenses and R&M Expenses for FY 2017-18 and FY 2018-19 by considering the normative expenses for FY 2016-17 and WPI index. CSPTCL has computed the base normative A&G expenses and R&M Expenses for FY 2017-18 as Rs. 30.48 Cr. and Rs. 31.25 Cr., respectively. Similarly, the base normative A&G expenses and R&M Expenses for FY 2018-19 are computed as Rs. 35.19 Cr. and Rs. 36.07 Cr., respectively.

#### **Additional O&M Expenses**

CSPTCL submitted that as per Regulation 47.5(g) of CSERC MYT Regulations 2015, claim for additional O&M expenses on new transmission lines/substations commissioned after March 31, 2016 is permissible. However, practically, it is not possible to isolate the actual O&M Expenses specifically on new transmission lines / substations commissioned after March 31, 2016.

CSPTCL submitted that in Tariff Order dated February 28, 2019, the Commission had benchmarked the approved GFA with the base O&M Expenses allowed for FY 2016-17, and allowed additional O&M expenses in the same proportion for corresponding increase in GFA. CSPTCL submitted that it has adopted the same methodology to compute additional A&G expenses and R&M Expenses for FY 2017-18 and FY 2018-19 on account of new transmission lines and sub-stations. In addition to Gross Fixed Asset submitted in the Petition, CSPTCL has considered the GFA of Deposit works as the said are also maintained by CSPTCL. The Additional normative R&M and A&G Expenses computed by CSPTCL are shown in the following Table:

**Table 4-7: Additional Normative O&M Expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	Formula	FY 2017-18	FY 2018-19
1	Average of opening and closing GFA for previous FY	A	3,765.89	4,169.06
2	Average of opening and closing GFA for current FY	B	4,169.06	4,583.41
3	Increase in GFA (%)	$C = (B-A)/A * 100$	10.71%	9.94%
4	Normative A&G Expenses	D	30.48	35.19
5	Normative R&M Expenses	E	31.25	36.07
6	<b>Additional A&amp;G Expenses on account of increase in GFA</b>	$F = D * C$	3.26	3.50
7	<b>Additional R&amp;M Expenses on account of increase in GFA</b>	$G = E * C$	3.35	3.59

Further, CSPTCL submitted the normative A&G Expenses and R&M Expenses for FY 2017-18 and FY 2018-19 after adding Additional Normative expenses to base normative expenses as shown in the Table below:

**Table 4-8: Normative A&G Expenses and R&M Expenses for 2017-18 and FY 2018-19 (Rs. Cr.)**

Particulars	FY 2017-18	FY 2018-19
<b>Normative A&amp;G Expenses</b>		
Base Normative Expenses	30.48	35.19
Additional A&G Expenses	3.26	3.50
<b>Total</b>	<b>33.75</b>	<b>38.69</b>
<b>Normative R&amp;M Expenses</b>		
Base Normative Expenses	31.25	36.07
Additional R&M Expenses	3.35	3.59
<b>Total</b>	<b>34.59</b>	<b>39.66</b>

CSPTCL submitted the sharing of gain/(loss) for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 4-9: Sharing of gain/(loss) on A&G Expenses and R&M expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		Normative	Actual	Gain/(Loss)	Normative	Actual	Gain/(Loss)
A	Net A&G expenses	33.75	42.98	(9.23)	38.69	44.99	(6.30)
B	Net R&M expenses	34.59	41.64	(7.05)	39.66	45.37	(5.71)
C	Total Gain/(Loss)			(16.28)			(12.01)
D	<b>CSPTCL share (1/2 of Total Gain/(Loss))</b>			(8.14)			(6.01)

CSPTCL submitted that the prevalent norms for calculation of R&M expenses based on WPI alone are not sufficient and should be linked with the growth in the asset base of the utility, besides inflationary increase. As per the infrastructure increase in the licensed area, it would be pertinent to link R&M expenses and A&G expenses to GFA in the future.

***Consideration of Outsourced work under R&M Head***

CSPTCL submitted that R&M works for FY 2017-18 and FY 2018-19 have increased due to the reason that EHV sub-station of CSPTCL are being outsourced for operational purpose (including cleaning, watch and ward). The details of the outsourced expenses are as under:

**Table 4-10: Details of Outsourced Expenses (Rs. Cr.)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19
132 kV Substations	10.35	14.41	24.47
220 kV Substations	2.65	3.65	6.95
Grand total	13.00	18.06	31.42

The reason for considering these expenses under R&M expenses is that these expenses have been incurred on R&M works for EHV sub-stations. There is no separate account head for booking expenditure incurred on outsourced employees. If regular employees of CSPTCL had been deployed for this purpose, then even more expenditure (2 to 3 times) would have to be incurred. Similarly, for economic reasons, it has employed various personnel through outsourcing against vacant post in ministerial cadre and wages of such personnel are booked under A&G head, instead salaries/employee expenses. The wages are variable and linked to price index. The vacancies created by retirement are mostly filled up by this method through outsourcing. It is pertinent to mention here that these wages are required to be paid by CSPTCL to outsourced employees against the vacant



post of CSPTCL for day to day operation (including cleaning, watch & ward) of existing/new EHV sub-stations/offices etc. Since the nature of these expenses (wages) are similar to employee expenses for regular employees, CSPTCL requested to consider these expenses at par with employee expenses only for the purpose of computation of gain and loss of A&G and R&M expenses.

### **Commission's View**

As regards O&M Expenses, Regulation 47.5 of the CSERC MYT Regulations, 2015 specifies as under:

#### ***“47.5 Operation and Maintenance expenses***

##### ***Employee Cost***

- a) *The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 16, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution and impact of pay revision arrears available in the accounts for the previous five (5) years immediately preceding the base year FY 16, subject to prudence check by the Commission. Any other expense of nonrecurring nature shall also be excluded while determining normalized average for the previous five (5) years.*
- b) *The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the Control period.*

***At the time of true up, the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.***

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

##### ***A&G Expenses and R&M Expenses***

- c) *The administrative and general expenses and repair and maintenance expenses, for the base year i.e. FY 16, shall be derived on the basis of the normalized average of the actual administrative and general expenses and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.*

d) *The normalization shall be done by applying last five year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 15, shall then be used to project base year value for FY 16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the Control period.*

*At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.*

e) *The additional O&M Expenses on account of new transmission lines/substations commissioned after March 31, 2016 shall be allowed by the Commission subject to prudence check at the time of true-up exercise." (emphasis added)*

In accordance with the above said Regulations, O&M Expenses had been approved in the MYT Order for the Control Period. The above Regulations specify that, at the time of truing up, the O&M Expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period. The Regulation does not require to revise base O&M expenses as approved in the MYT Order.

The Commission has considered escalation factor of 3.08% for employee expenses and 2.92% for R&M expenses and A&G Expenses for FY 2017-18 based on CPI and WPI index. Similarly, the Commission has considered escalation factor of 5.45% for employee expenses and 4.32% for R&M expenses and A&G Expenses for FY 2018-19.

Further, Regulation 47.5 (g) of the CSERC MYT Regulations, 2015, specifies to consider the additional O&M expenses on account of new transmission lines/substations commissioned after March 31, 2016. In line with the methodology adopted by the Commission in previous order, the Commission has computed the additional O&M expenses by considering approved GFA with the base O&M expenses allowed for the previous year and in the same proportion for corresponding increase in GFA. The Commission has also considered the GFA towards deposit works, as submitted by CSPTCL. The additional normative A&G expenses and R&M expenses on account of new transmission lines and sub-stations for FY 2017-18 and FY 2018-19 are computed as shown in the Table below:

**Table 4-11: Computation of Additional A&G expenses and R&M expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Particulars	Legend/Formula	FY 2017-18	FY 2018-19
Average of Opening and Closing GFA for FY Previous FY	A	3,765.89	4,169.06
Average of Opening and Closing GFA for current FY	B	4,169.06	4,583.41
Increase in GFA (%)	$C=(B-A)/Ax100$	10.71%	9.94%
Normative A&G Expenses approved for FY	D	30.48	35.21
Normative R&M Expenses approved for FY	E	31.25	36.09
Additional A&G Expenses on account of increase in GFA for FY	$F=D \times C$	3.26	3.50
Additional R&M Expenses on account of increase in GFA for FY	$G = E \times C$	3.35	3.59

For the purpose of true-up for FY 2017-18 and FY 2018-19, the Commission approves the normative A&G expenses and R&M Expenses including additional A&G expenses and R&M expenses on account of new transmission lines/sub-stations. The normative O&M Expenses approved for FY 2017-18 and FY 2018-19 are shown in the following Table:

**Table 4-12: Approved Normative O&M Expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Particulars	FY 2017-18		FY 2018-19	
	MYT Order	Revised	MYT Order	Revised
Employee Expenses	169.67	153.14	185.02	161.48
A&G Expenses	30.92	33.75	33.01	38.71
R&M Expenses	31.69	34.59	33.84	39.67
<b>Grand total</b>	<b>232.28</b>	<b>221.48</b>	<b>251.86</b>	<b>239.86</b>

The Commission has undertaken sharing of gains and losses of normative expenses vis-à-vis actual expenses for FY 2017-18 and FY 2018-19, as per CSERC MYT Regulations, 2015.

The actual Employee expenses has been approved based on accounts and clarifications sought from CSPTCL which is as shown in the Table below:

**Table 4-13: Approved Actual Gross Employee Expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Petition	Approved	Petition	Approved
1	Gross Employee Expenses (CSPTCL + SLDC) excluding terminal benefits	187.30	187.30	217.86	217.86
2	Less: SLDC Employee Expenses	8.99	8.99	9.12	9.12
3	Gross Employee Expenses (excluding SLDC)	178.31	178.31	208.74	208.74
4	Less: Employee Cost Capitalized	12.56	12.56	13.36	13.36
<b>5</b>	<b>Net Employee Expenses</b>	<b>165.76</b>	<b>165.76</b>	<b>195.37</b>	<b>195.37</b>

Further, the Commission has approved the actual A&G expenses and R&M Expenses for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 4-14: Approved Actual A&G Expenses and R&M Expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Petition	Approved	Petition	Approved
1	Gross A&G Expenses	46.68	46.68	49.09	49.09
2	Less: SLDC Expenses	0.96	0.96	0.91	0.91
<b>3</b>	<b>Gross A&amp;G Expenses (Excluding SLDC)</b>	<b>45.72</b>	<b>45.72</b>	<b>48.18</b>	<b>48.18</b>
4	A&G Expenses Capitalized	2.74	2.74	3.19	3.19
<b>5</b>	<b>Net A&amp;G Expenses</b>	<b>42.98</b>	<b>42.98</b>	<b>44.99</b>	<b>44.99</b>
6	Gross R&M Expenses	42.25	42.25	46.74	46.74
7	Less: SLDC Expenses	0.61	0.61	1.37	1.37
<b>8</b>	<b>Gross R&amp;M Expenses (Excluding SLDC)</b>	<b>41.64</b>	<b>41.64</b>	<b>45.37</b>	<b>45.37</b>
9	R&M Expenses Capitalized	-	-	-	-
<b>10</b>	<b>Net R&amp;M Expenses</b>	<b>41.64</b>	<b>41.64</b>	<b>45.37</b>	<b>45.37</b>

As regards the sharing of gains and losses, the following provision has been inserted in Regulation 13.1 by the First Amendment to the CSERC MYT Regulations, 2015 on June 16, 2017:

*“Provided further that employee cost shall not be factored in for sharing of gains or losses on account of operations and maintenance expenses ...”*

Accordingly, the Commission approves the Employee Expenses at actuals for FY 2017-18 and FY 2018-19.

Further, the Commission notes that CSPTCL in its subsequent submission, has requested the Commission to consider expenses of outsourcing and sub-contracting manpower as a separate line item instead of under R&M Expenses, and not subject the same to sharing of efficiency gains or losses. Regarding this issue, the Commission vide its Tariff Order dated February 28, 2019 has held that according to the regulations such expenses cannot be a part of employee expenses and service contract. In nature, these expenses shall be booked under A&G expenses instead of R&M expenses.

Accordingly, the sharing of gains and losses in O&M expenses, computed after final true-up for FY 2017-18 and FY 2018-19 is shown in the following Table:

**Table 4-15: Sharing of gain/(loss) on A&G Expenses and R&M expenses for FY 2017-18 and FY 2018-19 as approved by the Commission (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		Normative	Actual	Gain/(Loss)	Normative	Actual	Gain/(Loss)
A	Net A&G expenses	33.75	42.98	(9.23)	38.71	44.99	(6.28)
B	Net R&M expenses	34.59	41.64	(7.05)	39.67	45.37	(5.70)
C	Total Gain/(Loss)			(16.28)			(11.98)
D	CSPTCL share (1/2 of Total Gain/(Loss))			(8.14)			(5.99)

#### 4.5 Contribution to Pension and Gratuity Fund

##### CSPTCL’s Submission

CSPTCL submitted that the Commission, in the MYT Order, had allowed contribution to Pension and Gratuity (P&G) fund of Rs. 53.61 Cr. and Rs. 58.47 Cr. for FY 2017-18 and FY 2018-19, respectively. CSPTCL has considered the actual contribution towards Pension and Gratuity of Rs. 53.61Cr. and Rs. 58.47 Cr., net of SLDC, for FY 2017-18 and FY 2018-19, respectively.

### Commission's View

The Commission approves the actual Contribution to Pension and Gratuity Fund for FY 2017-18 and FY 2018-19 as submitted by CSPTCL, as shown in the following Table:

**Table 4-16: Contribution to P&G Fund for FY 2017-18 and FY 2018-19 as approved by the Commission (Rs. Cr.)**

Particulars	FY 2016-17			FY 2017-18		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Contribution to Pension & Gratuity Fund	53.61	53.61	53.61	58.47	58.47	58.47

## 4.6 Gross Fixed Assets

### CSPTCL's Submission

CSPTCL submitted that the Commission, in the MYT Order, had approved the methodology for determination of capital structure into consumer contribution, debt and equity. The capital structure for FY 2017-18 and FY 2018-19 has been done as follows:

- CSPTCL submitted that opening Capital Works in Progress (CWIP) for FY 2017-18 and FY 2018-19 has been considered equal to the closing CWIP of previous year, as per true up of ARR of respective years
- For FY 2017-18, closing CWIP of Rs. 616.62 Cr. has been considered as per the audited accounts and actual loan addition is considered as Rs. 119.21 for FY 2018-19, closing CWIP of Rs.653.43 Cr. and the loan addition of Rs. 321.49 Cr. have been considered.
- GFA addition of Rs. 268.15 Cr. for FY 2017-18 and Rs. 567.90 Cr. for FY 2018-19 (net of GFA addition for SLDC) have been considered as per audited accounts for respective years.
- Assets generated on account of consumer contribution has been taken as Nil, considering their value as Rs.1 only as per Accounting Standard for both years.
- The normative debt: equity ratio has been considered as 70:30 for additional capitalisation during the year as per the CSERC MYT Regulations, 2015 for both years.

CSPTCL submitted the Capital Structure for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 4-17: Capital Structure submitted by CSPTCL for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2016-17 True-up order dt.28.02.19	FY 2017-18 (Based on provisional accounts)	FY 2017-18 (Based on audited accounts)	FY 2018-19 (Based on final accounts)
<b>A</b>	<b>GROSS FIXED ASSETS (GFA)</b>				
1	Opening GFA	3,655.02	3,863.64	3,863.64	4,131.79
2	Opening CWIP	564.47	747.90	747.90	616.62
3	Opening Capex	4,219.49	4,611.54	4,611.54	4,748.41
4	Capitalization during the year	208.62	267.08	268.15	567.90
5	Closing GFA	3,863.64	4,130.72	4,131.79	4,699.69
6	Closing CWIP	747.90	577.84	616.62	653.43
7	Closing Capex	4,611.54	4,708.56	4,748.41	5,353.11
<b>B</b>	<b>GRANTS &amp; CONSUMER CONTRIBUTION</b>				
1	Opening Grant and Contribution	101.56	101.56	101.56	101.56
2	Consumer Contribution/Grants during the Year	-	-	-	-
3	Closing Consumer Contribution	101.56	101.56	101.56	101.56
4	Consumer Contribution in Opening GFA	46.06	46.06	46.06	46.06
5	Consumer Contribution in Closing GFA	46.06	46.06	46.06	46.06
<b>C</b>	<b>LOAN BORROWED</b>				
1	Opening Borrowed Loan	2,144.62	2,144.62	2,144.62	2,263.83
2	Loan Borrowed during the Year	-	119.21	119.21	321.49
3	Closing Borrowed Loan	2,144.62	2,263.83	2,263.83	2,585.33
4	Borrowed Loan in Opening GFA	2,322.74	2,468.78	2,468.78	2,656.48
5	Borrowed Loan in Closing GFA	2,468.78	2,655.73	2,656.48	3,054.01
<b>D</b>	<b>Equity</b>				
1	Opening Gross Equity	1973.32	2,365.36	2,365.36	2383.02
2	Equity addition during the Year	392.04	-	17.65	283.21
3	Closing Gross Equity	2,365.36	2,343.17	2,383.02	2,666.23
4	Gross Equity in Opening GFA	1,286.22	1,348.80	1,348.80	1,429.25
5	Gross Equity in Closing GFA	1,348.80	1,428.93	1,429.25	1,599.62
6	Average Gross Equity during the year	1,317.51	1,388.87	1,389.03	1514.43
<b>E</b>	<b>PERMISSIBLE EQUITY</b>				
1	Permissible Equity in Opening GFA	909.10	971.68	971.68	1,052.13
2	Permissible Equity in Closing GFA	971.68	1,051.81	1,052.13	1,222.50
3	Average Gross Permissible Equity during the year	940.39	1,011.75	1,011.91	1,137.31
<b>F</b>	<b>NORMATIVE LOAN</b>				
1	Opening Normative Loan	377.12	377.12	377.12	377.12
2	Closing Normative Loan	377.12	377.12	377.12	377.12
3	Average Normative Loan	377.12	377.12	377.12	377.12

CSPTCL submitted the means of finance for GFA addition at normative debt: equity ratio of 70:30. Accordingly, CSPTCL submitted the debt amount of Rs. 187.70 Cr. and Rs. 397.53 Cr.; and Equity amount of Rs. 80.44Cr. and Rs. 170.37Cr. for FY 2017-18 and FY 2018-19, respectively. CSPTCL requested the Commission to approve the capital structure and means of finance including GFA addition for FY 2017-18 and FY 2018-19 as per its submissions.

### Commission's View

In the previous tariff order, the Commission has approved the closing GFA for FY 2016-17 as Rs. 3,863.64 cr. after true-up. The Commission has accordingly considered the same amount as opening GFA for FY 2017-18. The closing GFA approved for FY 2017-18 after true-up in this order has been considered as the opening GFA for FY 2018-19.

The Commission notes that audited accounts for FY 2017-18 indicate the capitalisation of Rs. 268.61 cr.(including of GFA addition of CSLDC of Rs. 0.46 Cr.). Accordingly, the Commission has considered the capitalisation of Rs. 268.15 cr. (net of GFA addition of CSLDC) for FY 2017-18. Similarly, the Commission has considered the capitalisation of Rs. 567.90 cr. (net of GFA addition of SLDC) for FY 2018-19 based on audited accounts.

As regards the funding of capitalisation, the Commission has not considered any grants or consumer contribution utilised for funding of capitalisation. Further, normative Debt: Equity ratio of 70:30 has been considered as per Regulation 17 of the CSERC MYT Regulations, 2015.

The Commission approves the GFA addition and it's funding for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 4-18: Approved GFA Addition and Means of Finance for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Petition	Approved	Petition	Approved
1	GFA Addition	268.15	268.15	567.90	567.90
	<b>Means of Finance</b>				
2	Consumer Contribution	-	-	-	-
3	Equity	80.44	80.44	170.37	170.37
4	Debt	187.70	187.70	397.53	397.53
<b>5</b>	<b>Total Capitalisation</b>	<b>268.15</b>	<b>268.15</b>	<b>567.90</b>	<b>567.90</b>



## **4.7 Depreciation**

### **CSPTCL's Submission**

CSPTCL submitted that it has computed depreciation of Rs. 186.60 cr. and Rs. 208.51 cr. for FY 2017-18 and FY 2018-19, respectively, in accordance with Regulation 24 of the CSERC MYT Regulations, 2015. CSPTCL requested the Commission to approve the same after final true-up of ARR for FY 2017-18 and FY 2018-19, respectively.

### **Commission's View**

The Commission has approved the depreciation in accordance with the approach adopted in the past orders. The closing GFA for FY 2016-17, as approved in the true up for FY 2016-17, has been considered as the opening GFA for FY 2017-18. The GFA addition has been considered as approved by the Commission earlier in this Chapter. The addition of Grants and consumer contribution in GFA has been considered as Nil for both years. The weighted average depreciation rate of 5.26%, computed on the basis of depreciation rates specified in the CSERC MYT Regulations, 2015, has been considered for FY 2017-18 and FY 2018-19.

In reply to the specific query, CSPTCL submitted the details of depreciation on fully depreciated assets for FY 2017-18 and FY 2018-19. During final true-up for FY 2016-17 the depreciation of Rs. 20.10 Cr. towards fully depreciated assets has been considered. Further, based on details submitted by CSPTCL, it is observed that depreciation on fully depreciated assets during the year is Rs. 1.02 Cr. for FY 2017-18 and Rs. 0.10 Cr. for FY 2018-19. Accordingly, in this instant order, the Commission has disallowed the depreciation on fully depreciated assets as Rs. 21.12 Cr. and Rs. 21.22 Cr. for FY 2017-18 and FY 2018-19 respectively. The depreciation computed by the Commission for FY 2017-18 and FY 2018-19 is shown in the following Table:

**Table 4-19: Approved Depreciation for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
1	Opening GFA excluding CSLDC	4,100.02	3,863.64	3,863.64	4669.39	4,131.79	4,131.79
2	Add: Capitalization during the year	569.38	268.15	268.15	281.48	567.90	567.90
3	GFA at the end of the year excluding CSLDC	4,669.40	4,131.79	4,131.79	4950.87	4,699.69	4,699.69
4	Average GFA for the year	4,384.70	3,997.71	3,997.71	4810.13	4,415.74	4,415.74
5	Depreciation Rate	5.25%	5.26%	5.26%	5.25%	5.26%	5.26%
6	Depreciation @ applicable rates as per Regulations	230.20	210.14	210.14	252.53	232.16	232.16
7	Less: Depreciation on Consumer Contribution on live assets	2.42	2.42	2.42	2.42	2.42	2.42
8	Less: Depreciation on fully depreciated assets	20.10	21.12	21.12	22.09	21.22	21.22
<b>9</b>	<b>Net Depreciation</b>	<b>207.68</b>	<b>186.60</b>	<b>186.60</b>	<b>228.02</b>	<b>208.51</b>	<b>208.51</b>

#### 4.8 Interest on Loan

##### CSPTCL's Submission

CSPDCL submitted that it has calculated interest and finance charges as per Regulation 23 of the CSERC MYT Regulations, 2015. CSPTCL has submitted details of actual loan for FY 2017-18 and FY 2018-19 as per the audited accounts. CSPTCL has considered the approved closing normative loan balance for FY 2016-17 as per the true-up Order, as the opening normative loan balance for FY 2017-18. The debt component of 70% of GFA addition during FY 2017-18 and FY 2018-19 has been considered as the normative loan addition during respective years. The allowable depreciation for FY 2017-18 and FY 2018-19 has been considered as the normative repayment for respective years. The rate of interest has been computed in accordance with Regulation 23.5. The actual weighted average interest rates of 10.06% for FY 2017-18 and 10.86% for FY 2018-19 have been considered for computation of the interest on loan. CSPTCL requested to approve Interest on Loan of Rs. 175.47 cr. for FY 2017-18 and Rs. 134.59 cr. for FY 2018-19.

##### Commission's View

The Commission has approved interest on loan capital for FY 2017-18 and FY 2018-19 as per Regulation 23 of the CSERC MYT Regulations, 2015.

The Commission has considered the closing net normative loan balance for FY 2016-17, as approved after True-up, as the opening net normative loan balance for FY

2017-18. The addition of normative loan for FY 2017-18 and FY 2018-19 has been considered based on debt component towards the actual capitalisation of respective years, as considered earlier in this Chapter. The repayment has been considered equal to net depreciation approved for FY 2017-18 and FY 2018-19 in this Order.

The Commission notes that Regulation 23.5 of the CSERC MYT Regulations, 2015 specifies to consider the rate of interest based on actual loan portfolio at the beginning of the year. The Commission notes that CSPTCL has corrected the computation of weighted average rate of interest in the present Petition, based on the approach adopted by the Commission for provisional truing up for FY 2017-18. Accordingly, the Commission has computed the weighted average rate of interest of 10.06 % for FY 2017-18 and 10.86% for FY 2018-19, as per Regulation 23.5 of the CSERC MYT Regulations, 2015.

Accordingly, the interest on loan approved for FY 2017-18 and FY 2018-19 is shown in the Table below:

**Table 4-20: Approved Interest on Loan for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
1	Total Opening Net Loan	1904.69	1,743.71	1,743.71	2,096.21	1,744.82	1,744.82
2	Repayment during the period	207.05	186.60	186.60	227.39	208.51	208.51
3	Additional Capitalization of Borrowed Loan during the year	398.56	187.70	187.70	197.03	397.53	397.53
4	Total Closing Net Loan	2096.21	1,744.82	1,744.82	2,065.85	1,933.83	1,933.83
5	Average Loan during the year	2000.45	1,744.26	1,744.26	2,081.03	1,839.32	1,839.32
6	Weighted Average Interest Rate	12.20%	10.06%	10.06%	12.20%	10.86%	10.86%
7	<b>Interest Expenses</b>	<b>244.06</b>	<b>175.47</b>	<b>175.47</b>	<b>253.89</b>	<b>199.84</b>	<b>199.84</b>

#### 4.9 Return on Equity (RoE) and Income Tax

##### CSPTCL's Submission

CSPTCL has computed Return on Equity (RoE) as per Regulation 22 of the CSERC MYT Regulations, 2015, using the base rate of Return on Equity of 15.50. The Income Tax has been separately claimed based on actual Income Tax paid during the year. CSPTCL claimed the Income Tax of Rs. 7.38 Cr. for FY 2017-18 and Rs. 21.10 Cr. for FY 2018-19. CSPTCL has considered the closing permissible equity balance

of FY 2016-17, as approved in the true-up Order, as the opening permissible equity balance for FY 2017-18. The equity addition has been considered as 30% of the actual capitalisation during the respective years. CSPTCL requested the Commission to approve RoE of Rs. 156.85 Cr. for FY 2017-18 and Rs. 176.28 Cr. for FY 2018-19. It also requested the Commission to consider the similar approach for CSPTCL for computation of RoE by grossing up return on equity with MAT rate of 20.96%, if adopted for CSPGCL and CSPDCL.

### Commission's View

Regulation 22 of the MYT Regulations, 2015 specifies that RoE shall be computed by grossing up the base rate with the prevailing MAT rate of the base year for projection purposes. CSPTCL has paid actual Income Tax of Rs. 7.38 Cr. for FY 2017-18 and Rs. 21.10 cr. for FY 2018-19. The Commission notes that CSPTCL has requested for separate approval of actual Income Tax paid. The Commission has accepted the submission of CSPTCL. Accordingly, the Commission has approved RoE at base rate of 15.50% as per Regulation 22 of the CSERC MYT Regulations, 2015 and allowed the Income Tax separately.

For computation of RoE, the closing equity as approved for FY 2016-17 after True-up has been considered as opening equity for FY 2017-18. The equity addition has been considered based on the actual capitalisation as approved earlier in this Order. The Commission approves the RoE for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 4-21: Approved Return on Equity for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
1	Permissible Equity in Opening GFA	1,041.47	971.68	971.68	1,212.28	1,052.13	1,052.13
2	Addition of Permissible Equity during the year	170.81	80.44	80.44	84.45	170.37	170.37
3	Permissible Equity in Closing GFA	1212.28	1,052.13	1,052.13	1,296.73	1,222.50	1,222.50
4	Average Gross Permissible Equity during the year	1,126.88	1,011.91	1,011.91	1,254.51	1,137.31	1,137.31
5	Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
<b>6</b>	<b>Return on Equity</b>	<b>174.67</b>	<b>156.85</b>	<b>156.85</b>	<b>194.45</b>	<b>176.28</b>	<b>176.28</b>

As regards Income Tax, CSPTCL was asked to submit the detailed computation of Income Tax and related documentary evidence viz. Income tax receipt, challans, etc. for actual Income Tax paid for FY 2017-18 and FY 2018-19. CSPTCL submitted computation of Income Tax, Income Tax challans and other documentary evidences for FY 2017-18 and FY 2018-19 for prudence check. Further, CSPTCL clarified that no adjustment towards MAT credit has been made during FY 2017-18 and FY 2018-19 and no refund of income was received towards previous years. Based on the scrutiny of the documentary evidences submitted by CSPTCL and actual Income Tax paid, the Commission approves Income Tax of Rs. 7.38 Cr. for FY 2017-18 and Rs. 21.10 Cr. for FY 2018-19.

#### **4.10 Interest on Working Capital**

##### **CSPTCL's Submission**

For computation of Interest on Working Capital (IoWC) for FY 2017-18 and FY 2018-19, CSPTCL has considered one month of actual O&M Expenses, maintenance spares at 40% of actual R&M expenses and receivables equivalent to one month of fixed cost for computing the working capital requirement. CSPTCL has considered the interest rate of 12.60% (i.e., 9.10% - SBI Base Rate on 1<sup>st</sup>April 2016 plus 350 basis points) for FY 2017-18 and 12.20% (i.e., 8.70% - SBI Base Rate on 1<sup>st</sup>April 2017 plus 350 basis points) for FY 2018-19. CSPTCL requested the Commission to approve IoWC of Rs. 13.27 Cr. for FY 2017-18 and Rs. 14.91 Cr. for FY 2018-19.

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

The Commission has computed IoWC in accordance with Regulation 25 of the MYT Regulations, 2015. For computation of working capital requirement as per the formula specified in the CSERC MYT Regulations, 2015, the Commission has considered the revised normative value of O&M expenses as approved in this Order. Further, the receivables have been considered based on the actual revenue billed by CSPTCL during FY 2017-18 and FY 2018-19. The interest rate has been considered as per Regulation 25.4 of the MYT Regulations, 2015, i.e., 12.60% for FY 2017-18 and 12.20% for FY 2018-19. The normative IoWC approved by the Commission is shown in the Table below:

**Table 4-22: Approved Interest on Working Capital for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
1	O&M expenses for One Month	19.36	20.86	19.51	20.99	23.81	22.81
2	Maintenance Spares @ 40% of R&M Expenses	12.68	16.66	13.84	13.53	18.15	15.87
3	Receivables @ 1 Month	76.40	67.80	67.80	82.79	80.29	80.29
4	Total Working Capital requirement	108.43	105.32	101.14	117.31	122.25	118.97
5	Less: Security Deposit from Transmission Users	-	-	-	-	-	-
6	Net Working Capital Requirement	108.43	105.32	101.14	117.31	122.25	118.97
7	Rate of Interest on WC	13.20%	12.60%	12.60%	13.20%	12.20%	12.20%
8	<b>Net Interest on Working Capital</b>	<b>14.31</b>	<b>13.27</b>	<b>12.74</b>	<b>15.49</b>	<b>14.91</b>	<b>14.51</b>

#### 4.11 Non-Tariff Income

##### CSPTCL's Submission

CSPTCL submitted the Non-Tariff Income of Rs. 32.99 Cr. for FY 2017-18 and Rs. 24.18 Cr. for FY 2018-19 based on audited accounts for respective years. CSPTCL has excluded the Non-Tariff Income of Rs. 0.03 Cr. for FY 2017-18 and FY 2018-19 for CSLDC. CSPTCL further clarified that it has not considered income from Delayed Payment Surcharge as a part of Non-Tariff Income.

##### Commission's View

For the purpose of true-up for FY 2017-18 and FY 2017-18, the Commission has considered the Non-Tariff Income for Transmission Business as per segmental notes of accounts for FY 2017-18 and FY 2018-19. Accordingly, the Commission has considered Non-Tariff income of Rs. 32.99Cr. for CSPTCL and Rs. 0.03 Cr. for CSLDC for FY 2017-18. Also, the Commission has considered Non-Tariff Income of Rs. 24.18Cr. for CSPTCL and Rs. 0.03 Cr. for CSLDC for FY 2018-19.

The Non-Tariff Income approved in True-up for FY 2017-18 and FY 2018-19 is shown in the Table below:

**Table 4-23: Approved Non-Tariff Income for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
1	Non-Tariff Income	22.35	32.99	32.99	22.35	24.18	24.18

#### **4.12 Incentive/Penalty on Transmission System Availability Factor (TSAF)**

##### **CSPTCL's Submission**

CSPTCL submitted that Target Availability of the transmission system is specified in Regulation 51 of the CSERC MYT Regulations, 2015, for incentive/penalty payable/levied to a Transmission Licensee. In the MYT Order, the Commission has approved the annual Target Availability factor for incentive/penalty as 99% and stipulated the modalities for computation of incentive/penalty on account of actual Transmission Availability factor.

CSPTCL submitted that it has achieved Transmission System Availability Factor (TSAF) of 99.89% for FY 2017-18 and 99.93% for FY 2018-19. Accordingly, CSPTCL has claimed the incentive of Rs. 6.09 Cr. for FY 2017-18 and Rs. 7.11 Cr. for FY 2018-19.

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

As regards Incentive/Penalty calculation related to the TSAF, the Commission in the MYT Order has stipulated as under:

##### ***"10.3.11 Incentive/Penalty Calculation***

*A. As per Clause 51 of the MYT Regulations, 2015, target availability of transmission system has to be specified for the control period for incentive/penalty payable/levied to a transmission licensee.*

*B. Annual target availability factor for incentive/penalty consideration shall be 99% for entire MYT Control period from FY 2016-17 to FY 2020-21:*

*Provided further that no incentive/penalty shall be payable for availability beyond 99.75%:*

C. The transmission licensee shall be entitled to incentive/penalty on achieving the annual availability beyond/lower than the target availability in accordance with the following formula:

$$\text{Incentive/Penalty} = \text{Annual Fixed Charges for that year} \times (\text{Annual availability achieved} - \text{Target availability}) / \text{Target availability}$$

D. Incentive/Penalty shall be shared equally (50:50) between the transmission licensee and beneficiaries.”

In this order, the Incentive/Penalty has been allowed in accordance with the above said principle specified in the Regulations.

The Commission has validated the actual TSAF based on CSLDC Certificate submitted for FY 2017-18 and FY 2018-19. The Commission notes that the actual TSAF duly certified by CSLDC is 99.89% for FY 2017-18 and 99.93% for FY 2018-19, which is higher than the Target TSAF. Hence, CSPTCL is entitled for incentive.

Accordingly, the Commission approves the Incentive on account of Transmission System Availability Factor for FY 2017-18 and FY 2018-19 as shown in the Table below:

**Table 4-24: Approved Incentive for Higher Transmission System Availability for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18		FY 2018-19	
		Petition	Approved	Petition	Approved
1	Annual TSAF (%)	99.89%	99.89%	99.93%	99.93%
2	Target TSAF (%)	99.00%	99.00%	99.00%	99.00%
3	Maximum TSAF that can be considered for incentive	99.75%	99.75%	99.75%	99.75%
4	Incentive/(Penalty)	6.09	6.10	7.11	7.10
5	<b>Sharing of gain/(loss) (50%)</b>	3.05	3.05	3.55	3.55

#### 4.13 Aggregate Revenue Requirement (ARR)

Based on the above, the ARR approved after true-up for FY 2017-18 and FY 2018-19 is shown in the Table below:



**Table 4-25: Approved ARR after true-up for FY 2017-18 and provisional true-up for FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
1	Employee Expenses	169.67	178.31	178.31	185.02	208.74	208.74
2	A&G Expenses	30.92	45.72	45.72	33.01	48.18	48.18
3	R&M Expenses	31.69	41.64	41.64	33.84	45.37	45.37
4	Interim Wage Relief	12.81	-	-	13.97	-	-
5	Less: Capitalization of Employee, R&M and A&G Expenses	-	15.30	15.30	-	16.55	16.55
6	Contribution to Pension and Gratuity	53.61	53.61	53.61	58.47	58.47	58.47
7	Depreciation	207.68	186.60	186.60	228.02	208.51	208.51
8	Interest on Loan	243.79	175.47	175.47	253.55	199.84	199.84
9	Interest on Working capital	14.31	13.27	12.74	15.49	14.91	14.51
10	Return on Equity	174.67	156.85	156.85	194.45	176.28	176.28
11	Gain/(Loss) on sharing O&M efficiency	-	(8.14)	(8.14)	-	(6.01)	(5.99)
12	Incentive on Transmission Availability	-	3.05	3.05	-	3.55	3.55
13	Income Tax	-	7.38	7.38	-	21.10	21.10
<b>14</b>	<b>Aggregate Revenue Requirement (ARR)</b>	<b>939.15</b>	<b>838.46</b>	<b>837.93</b>	<b>1,015.81</b>	<b>962.40</b>	<b>962.02</b>
15	Less: Non-Tariff Income	22.35	32.99	32.99	22.35	24.18	24.18
<b>16</b>	<b>Net ARR</b>	<b>916.80</b>	<b>805.47</b>	<b>804.94</b>	<b>993.46</b>	<b>938.22</b>	<b>937.83</b>

#### 4.14 Transmission Income

##### CSPTCL's Submission

CSPTCL submitted the transmission income of Rs. 813.59 Cr. for FY 2017-18 and Rs. 963.48 Cr. for FY 2018-19 based on audited accounts. The break-up of transmission income is shown in the following Table:

**Table 4-26: Revenue break-up for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particular	FY 2017-18	FY 2018-19
1	AFC as approved in MYT Order	916.80	993.46
2	Surplus of FY 2016-17 adjusted with carrying cost up to FY 2018-19 as approved in tariff order dated 26.03.2018	-	29.98
3	Gap/(Surplus) of FY 2015-16 with carrying cost upto FY 2017-18 as approved in Tariff order dated 31.03.2017 (corrigendum dt. 13.04.2017)	(103.21)	-
<b>4</b>	<b>Total Revenue Billed</b>	<b>813.59</b>	<b>963.48</b>

##### Commission's View

The Commission notes that CSPTCL has considered the revenue towards the past surplus approved in the previous Orders for respective years. CSPTCL has not considered past gaps in the Net ARR. However, the Commission has considered the past gaps approved in the previous Orders for FY 2017-18 and FY 2018-19 in the ARR as well as in the revenue of respective years. Further, the Commission sought the consumer-wise break-up of actual revenue billed in FY 2017-18 and FY 2018-19 from CSPTCL, which was submitted by CSPTCL as under:

**Table 4-27: Revenue billed by CSPTCL during FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18	FY 2018-19
1	Revenue from CSPDCL- LTOA	779.69	861.91
2	Revenue from CSPDCL – LTOA – 70 MW Solar	12.56	15.58
3	Revenue from CSPTradCL	15.28	83.82
4	Revenue from STOA	6.06	2.17
<b>5</b>	<b>Grand Total</b>	<b>813.59</b>	<b>963.48</b>

In view of the above, the Commission has considered the revenue of Rs. 813.59 Cr. for FY 2017-18 and Rs. 963.48 Cr. for FY 2018-19 for the purpose of final true-up.

#### 4.15 Revenue Gap/(Surplus) for FY 2017-18 and FY 2018-19

##### CSPTCL's Submission

CSPTCL submitted the Revenue Gap/(Surplus) for FY 2017-18, as shown in the following Table:

**Table 4-28: Revenue Gap/(Surplus) submitted by CSPTCL for FY 2017-18 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18
1	Aggregate Revenue Requirement	805.47
2	Less: Revenue from Transmission Charges	813.59
3	Revenue Gap/(Surplus)	(8.12)
4	Opening Gap/(Surplus)	(103.21)
5	Total Revenue Gap/(Surplus)	(111.33)

CSPTCL further submitted that surplus of Rs. 123.79 Cr. was approved by the Commission in the provisional true-up order for FY 2017-18 and same was adjusted with carrying cost in the tariff of FY 2019-20. However, now the surplus for FY 2017-18 has been computed as Rs. 111.33 Cr.. The differential revenue gap of Rs. (123.79-111.33) = Rs. 12.46 Cr. is now to be adjusted along with carrying cost in the tariff for FY 2020-21. CSPTCL requested the Commission to approve revenue surplus of Rs. 111.33 Cr. for FY 2017-18 for final true-up.

Further, CSPTCL submitted the standalone Revenue Gap/(Surplus) for FY 2018-19 as shown in the following Table:

**Table 4-29: Revenue Gap/(Surplus) submitted by CSPTCL for FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2018-19
1	Aggregate Revenue Requirement	938.22
2	Less: Revenue from Transmission Charges	963.48
3	Revenue Gap/(Surplus)	(25.26)
4	Opening Revenue Gap/(Surplus) for FY 2015-16	(29.98)
5	<b>Total Revenue Gap/(Surplus)for FY 2017-18</b>	<b>(55.24)</b>

CSPTCL requested the Commission to approve the Revenue Surplus of Rs. 55.24 Cr. for FY 2018-19, along with the holding cost and will accordingly be adjusted in the tariff for FY 2020-21. CSPTCL submitted the revenue Surplus of Rs. 52.27 Cr., including holding cost to be adjusted in the ARR for CSPDCL for FY 2020-21.

Further, CSPTCL submitted that as per the CERC Tariff Order dated February 16, 2016 in Petition No. 245/TT/2013, it has executed RSA and Transmission Services Agreement (TSA) with PGCIL on August 2, 2017, for disbursement of transmission charges by PGCIL in CSPTCL account in respect of 220 kV Natural Inter-State Transmission Lines belonging to CSPTCL. CSPTCL submitted that CERC issued the following directive in the aforementioned Order:

*“The annual transmission charges allowed for the assets covered in the instant petition shall be considered in the YTC as per the sharing of Inter State Transmission Charges and Losses Regulation 2010 and shall be adjusted against the ARR of the Petitioner approved by the State Commission.”*

Accordingly, CSPTCL submitted that amount to be paid by CSPDCL after adjustment of POC charges received from PGCIL for the month of September 2017 to March 2018 against monthly bill issued to CSPDCL is Rs. 30.91 Cr.. Further, CSPTCL received Rs. 45.42 Cr. during FY 2018-19. CSPTCL requested the Commission to adjust in its ARR for FY 2017-18 and FY 2018-19. CSPTCL submitted that Rs. 30.91 Cr. received from PGCIL towards POC Charges during FY 2017-18 and Rs. 45.42 Cr. during FY 2018-19 has already been credited to CSPDCL.

### **Commission’s View**

The Commission has considered the past gaps approved in the previous Orders for respective years in the ARR as well as in the revenue of FY 2017-18 and FY 2018-19. The Commission had approved net Revenue Surplus in the provisional true up of FY 2017-18. The Commission has computed the Revenue Gap/(Surplus) after final true-up for FY 2017-18 for CSPTCL as shown in the Table below:

**Table 4-30: Approved Revenue Gap / (Surplus) for FY 2017-18 (Rs. Cr.)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2017-18</b>
1	Aggregate Revenue Requirement	804.94
2	Add: Past Revenue Gap/(Surplus) approved in MYT Order	(103.21)
3	Net ARR	701.73
4	Less: Revenue from Transmission Charges	813.59
<b>5</b>	<b>Revenue Gap/(Surplus)</b>	<b>(111.86)</b>

For computing the cumulative revenue surplus on account of final true-up for FY 2017-18, the Commission has considered the above approved revenue surplus. The holding cost on Revenue Surplus approved in final True up for FY 2017-18 has been computed for three years, i.e., from mid-point of FY 2017-18 to mid-point of FY 2020-21. The Commission has approved revenue surplus of Rs. 123.79 Cr. after provisional truing up for FY 2017-18. This Revenue surplus has been adjusted in ARR of FY 2019-20 for CSPDCL, which works out as Rs. 174.63 Cr. and the same has been adjusted against the cumulative Revenue Surplus at end of FY 2019-20, computed after considering the revenue surplus after final true-up.

**Accordingly, the Commission approves the cumulative revenue gap of Rs. 17.42 Cr. on account of final true-up for FY 2017-18.**

Further, the Commission has computed the Revenue Gap/(Surplus) after final true-up for FY 2018-19 for CSPTCL as shown in the Table below:

**Table 4-31: Approved Revenue Gap / (Surplus) for FY 2018-19 (Rs. Cr.)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2018-19</b>
1	Aggregate Revenue Requirement	937.83
2	Add: Past Revenue Gap/(Surplus) approved in MYT Order	(29.98)
3	Net ARR	907.85
4	Less: Revenue from Transmission Charges	963.48
<b>5</b>	<b>Revenue Gap/(Surplus)</b>	<b>(55.63)</b>

The Commission hereby approves the Revenue Surplus after Truing-up of FY 2018-19 as shown in the Table above. Further, holding cost on the Revenue Surplus approved in True up for FY 2018-19 has been computed for two years, i.e., from mid-point of FY 2018-19 to mid-point of FY 2020-21.

**Accordingly, the Commission approves cumulative revenue surplus of Rs. 70.50 Cr. on account of final true-up for FY 2018-19.**

Accordingly, the Revenue Surplus including holding cost, which is required to be factored in the revenue requirement of CSPDCL for FY 2020-21 works out to Rs. 56.19 Cr.. (i.e., Revenue Gap of Rs. 17.42 Cr. + Revenue Surplus of Rs.70.50 Cr.)

**The Commission approves the cumulative Revenue Surplus of Rs. 53.08 Cr. for CSPTCL on account of final true-up for FY 2017-18 and for FY 2018-19. The same Revenue Surplus has been adjusted in revenue requirement of CSPDCL for FY 2020-21, as discussed in subsequent Chapter of this Order.**

As regards the PGCIL Charges, the Commission has considered the same in Final True-up for FY 2017-18 and FY 2018-19 for CSPDCL in subsequent Section of this Chapter.

#### **4.16 Proposed STOA Charges for FY 2020-21**

##### **CSPTCL's Submission**

CSPTCL submitted that the Commission has determined the Short-term Open Access (STOA) charges in the previous Tariff Orders based on CSERC (Connectivity & Intrastate Open Access) Regulations, 2011, as amended from time to time. For determining STOA Charges for FY 2020-21, CSPTCL has calculated energy handled by it by considering maximum unrestricted demand of 4736 MW (observed on 21<sup>st</sup> July 2019).

CSPTCL submitted that the energy input to be handled by its system for FY 2020-21, considering the load factor of 70% on maximum demand met, is estimated as 29041 MU. The actual demand observed for FY 2019-20 shall be intimated to the Commission at the end of the financial year. CSPTCL submitted that the differential revenue surplus as arrived in the final true-up of ARR for FY 2017-18 and FY 2018-19 along with the respective year carrying costs has been adjusted in the revenue requirement for FY 2020-21, as shown in the Table below:

**Table 4-32: STOA Charges submitted by CSPTCL for FY 2020-21**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2020-21</b>
1	Net ARR approved in MYT Order (Rs. Cr.)	1049.36
2	Less: Surplus with holding cost till FY 2020-21 (Rs. Cr.)	52.27
<b>3</b>	<b>Total ARR for FY 2020-21 (Rs. Cr.)</b>	<b>997.09</b>
4	Maximum Demand Projected (MW)	4,736
5	Energy Input considering 70% Load Factor (MU)	29,041
<b>6</b>	<b>STOA Charges (Paise/kWh)</b>	<b>34.33</b>

CSPTCL further submitted that the long-term and medium-term open access customers including CSPDCL shall pay monthly transmission charges as per ARR and MW capacity as approved for the respective FY's of the Control Period.

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

Regulations 45.1 and 45.2 of the CSERC MYT Regulations, 2015 specify as under:

*“45.1 Annual Transmission charges or each year of the control period: The Annual Transmission Charges for each financial year of the control period shall provide for the recovery of the Aggregate Revenue Requirement of the Transmission licensee/STU for the respective financial year of the Control period, reduced by the amount of Non-Tariff Income and from other business, as approved by the Commission:*

*45.2. The annual Transmission Charges of the Transmission licensee shall be determined by the Commission on the basis of an application for determination of Aggregate Revenue Requirement made by the transmission licensee in accordance with chapter-2 of these Regulations.”*

As per the CSERC MYT Regulations, 2015, the annual transmission charges (fixed cost) shall be recovered from the users of CSPTCL's system on a monthly basis as per the methodology specified in the CSERC Open Access Regulations. According to the CSERC (Connectivity and Intra-State Open Access) Regulations, 2011, the basis of sharing monthly transmission charge shall be maximum demand in MW served by CSPTCL's system in the previous financial year.

The Commission has considered Maximum Demand in the State for FY 2020-21 as 4,736 MW, as projected by CSPTCL. The energy input to be handled by CSPTCL's system for FY 2020-21, considering the load factor of 70% on Maximum Demand met, is estimated as 29041MU. Accordingly, the Transmission Charges for STOA for

FY 2020-21 have been determined as shown in the Table below:

**Table 4-33: Approved STOA Charges for FY 2020-21**

<b>Sr. No</b>	<b>Particulars</b>	<b>FY 2020-21</b>
1	ARR approved in this Order (Rs. Cr.)	1,002.42
2	Less: Revenue Surplus with holding cost till FY 2019-20 (Rs. Cr.)	53.08
<b>3</b>	<b>Total ARR for FY 2019-20 (Rs. Cr.)</b>	<b>949.34</b>
4	Maximum Demand Projected (MW)	4,736
5	Energy Input considering 70% Load Factor (MU)	29,041
<b>6</b>	<b>STOA Charges (Paise/kWh)</b>	<b>32.69</b>



## 5 FINAL TRUE-UP OF ARR FOR FY 2017-18 AND FY 2018-19 FOR CSLDC

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### 5.1 Background

The Commission, in the MYT Order, has approved the ARR for CSLDC for the Control Period from FY 2016-17 to FY 2020-21. Subsequently, in accordance with Regulation 10.3 of CSERC MYT Regulations, 2015, the Commission, in its Tariff Order dated February 28, 2019, has undertaken provisional true-up of FY 2017-18 based on the provisional accounts of FY 2017-18. Now, CSLDC submitted the present Petition for final true-up of ARR for FY 2017-18 and FY 2018-19 based on the audited accounts of FY 2017-18 and FY 2018-19.

Regulation 10.4 of the CSERC MYT Regulations, 2015 specifies as under:

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

- (g) A comparison of the audited performance of the applicant for the previous financial year(s) with the approved forecast of such previous financial year(s), subject to the prudence check including pass-through of impact of uncontrollable factors;*
- (h) Review of compliance with directives issued by the Commission from time to time;*
- (i) Other relevant details, if any.”*

In accordance with the above Regulations, the Commission has undertaken final true-up of FY 2017-18 and FY 2018-19 for CSLDC based on audited Accounts.

In this Chapter, the Commission has analysed all the elements of actual expenditure and revenue of CSLDC for FY 2017-18 and FY 2018-19 and undertaken the final true-up of expenses and revenue in accordance with Regulation 10 of the CSERC

MYT Regulations, 2015. The Commission has approved the sharing of gains and losses on account of controllable factors between CSLDC and its beneficiaries, in accordance with Regulation 13 of the CSERC MYT Regulations, 2015.

## 5.2 Annual Charges for SLDC

Regulation 74.1 of the CSERC MYT Regulations, 2015 specifies the components of Annual Charges for SLDC as under:

- (a) Operation and Maintenance Expenses;
- (b) Contribution to Pension and Gratuity Fund.
- (c) Return on Equity;
- (d) Interest on loan capital;
- (e) Depreciation;
- (f) Interest on Working Capital and;

## 5.3 Operation and Maintenance (O&M) expenses

### CSLDC's Submission

CSLDC has considered the O&M expenses based on the segmental notes to the audited accounts for FY 2017-18 and FY 2018-19. The separate accounts are not being prepared between CSPTCL and CSLDC and the asset transfer scheme between CSLDC and CSPTCL has not been yet notified. CSLDC has considered O&M expenses for FY 2017-18 and FY 2018-19, as shown in the Table below:

**Table 5-1: O&M Expenses for FY 2017-18 and FY 2018-19 (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18	FY 2018-19
1	Gross Employee Expenses including Interim Wage Relief amount	8.99	9.12
2	Gross A&G Expenses	0.96	0.91
3	Gross R&M Expenses	0.61	1.37
<b>4</b>	<b>Total O&amp;M Expenses</b>	<b>10.55</b>	<b>11.41</b>

The capitalisation of O&M expenses has been considered as Nil both for FY 2017-18 and FY 2018-19. Also, CSLDC submitted the details of sanctioned employee strength, current employee strength, and vacant positions for different class of employees, as on March 31, 2018 and March 31, 2019, as shown in the Table below:

**Table 5-2: Employee strength at CSPTCL as on 31st March 2018 and 31st March 2019**

Sr. No.	Particular	Sanctioned as on 2018	Working		Sanctioned as on 2019	Vacant	
			As on 31st March 2018	As on 31st March 2019		As on 31st March 2018	As on 31st March 2019
<b>CSPTCL</b>							
1	Class I	131	108	113	155	23	42
2	Class II	235	147	181	235	88	54
3	Class III	1448	691	777	1,467	757	690
4	Class IV	1491	631	534	1,060	860	526
5	<b>Total</b>	<b>3305</b>	<b>1577</b>	<b>1,605</b>	<b>2,917</b>	<b>1,728</b>	<b>1,312</b>
<b>SLDC</b>							
1	Class I	20	17	13	20	3	7
2	Class II	24	17	16	24	7	8
3	Class III	21	15	15	21	6	6
4	Class IV	8	4	3	8	4	5
5	<b>Total</b>	<b>73</b>	<b>53</b>	<b>47</b>	<b>73</b>	<b>20</b>	<b>26</b>
<b>CSPTCL + SLDC</b>							
1	Class I	151	125	126	175	26	49
2	Class II	259	164	197	259	95	62
3	Class III	1,469	706	792	1,488	763	696
4	Class IV	1,499	635	537	1,068	864	531
5	<b>Total</b>	<b>3,378</b>	<b>1,630</b>	<b>1,652</b>	<b>2,990</b>	<b>1,748</b>	<b>1,338</b>

CSLDC submitted that the vacant positions will be filled in the near future and employee expenses will increase. The Wage Revision Committee has recommended that the pay scale needs to be revised, when Seventh Central Pay Commission recommendations are available and implemented by GOI for their employees. The salary structure has been recommended to be aligned to Central Government Pay scale from the date from which Central Government revises the pay scale of their employees including merger of DA with salary. CSLDC requested the Commission to allow the same when the effect takes place. CSLDC requested to approve actual O&M Expenses of Rs. 10.55 Cr. for FY 2017-18 and Rs. 11.41 Cr. for FY 2018-19.

#### **Sharing of gain and losses on account of O&M Expenses**

As per the CSERC MYT Regulations, 2015 and the subsequent amendment, the Employee expenses have been considered based on actuals and have not been subjected to sharing of gains or losses. A&G expenses and R&M expenses have been subjected to sharing of gains/losses as per Regulation 47.5 of the CSERC MYT Regulations, 2015.

Accordingly, CSLDC has computed the normative A&G expenses and R&M expenses for FY 2017-18 by applying escalation factor of 1.13% and 1.65% respectively, on approved expenses for base year, i.e., FY 2016-17. Similarly, normative A&G and R&M expenses for FY 2018-19 have been arrived at by applying the WPI escalation factor of 1.18% and 1.73% respectively over the normative A&G and R&M expenses for FY 2017-18. The normative A&G expenses and R&M for FY 2017-18 and FY 2018-19 submitted by CSLDC are shown in the Table below.

**Table 5-3: Normative A&G Expenses for FY 2017-18 and FY 2018-19 as submitted by CSLDC (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18	FY 2018-19
1	Normative A&G Expenses	1.13	1.18
2	Normative R&M Expenses	1.65	1.73

The normative A&G expenses and R&M expenses have been considered for the purpose of sharing of gains/losses for FY 2017-18 and for FY 2018-19, as shown in the following Table:

**Table 5-4: Sharing of gain/ (loss) on A&G expenses and R&M expenses for FY 2017-18 and FY 2018-19 as submitted by CSLDC (Rs. Cr.)**

Sr. No.	Particular	FY 2017-18			FY 2018-19		
		Normative	Actual	Gain/ (Loss)	Normative	Actual	Gain/ (Loss)
1	Net A&G expenses	1.13	0.96	0.18	1.18	0.91	0.26
2	Net R&M expenses	1.65	0.61	1.04	1.73	1.37	0.36
3	Total Gain/(Loss)			1.22			0.62
4	<b>CSLDC share (1/2 of Total Gain/(Loss))</b>			<b>0.61</b>			<b>0.31</b>

CSLDC submitted sharing of gains/(losses) of Rs. 0.61 Cr. and Rs. 0.31 Cr. on account of sharing of normative A&G expenses and R&M expenses vis-à-vis actual expenses for true-up of ARR for FY 2017-18 and FY 2018-19, respectively.

### **Commission's View**

Regulation 47.5 of the CSERC MYT Regulations, 2015 specifies the basis for computation of normative O&M expenses and the method of sharing the efficiency gains/losses vis-à-vis actual O&M expenses, as reproduced in the earlier Chapter.

The Commission, in the MYT Order, had approved O&M Expenses for the Control Period in accordance with the said Regulations, which specify that at the time of truing up, the O&M expenses shall be considered after taking into account the actual inflation over the approved O&M expenses of base-year/previous year.

Accordingly, the Commission has computed the revised normative O&M expenses for FY 2017-18 and FY 2018-19 by applying the actual inflation over base-year's approved O&M expenses. The Commission has considered the WPI and CPI as per the CSERC MYT Regulations, 2015 and, accordingly, computed escalation factor of 3.08% for employee expenses and 2.92% for R&M expenses and A&G Expenses for FY 2017-18. Similarly, the Commission has computed escalation factor of 5.45% for employee expenses and 4.32% for R&M expenses and A&G Expenses for FY 2018-19. Accordingly, the normative O&M Expenses approved for FY 2017-18 and FY 2018-19 are as shown in the Table below:

**Table 5-5: Approved Normative O&M Expenses for FY 2017-18 and FY 2018-19**  
(Rs. Cr.)

Particulars	FY 2017-18		FY 2018-19	
	Approved in MYT Order	Revised Normative Expenses	Approved in MYT Order	Revised Normative Expenses
Employee Expenses	6.75	6.08	7.36	6.41
A&G Expenses	1.23	1.13	1.32	1.18
R&M Expenses	1.80	1.66	1.92	1.73
<b>Grand total</b>	<b>9.78</b>	<b>8.87</b>	<b>10.60</b>	<b>9.32</b>

The Commission has considered actual O&M expenses for FY 2017-18 and FY 2018-19 as per audited accounts, as submitted by CSLDC. Accordingly, the Commission approves actual O&M Expenses of Rs. 10.55 Cr. for FY 2017-18 and Rs. 11.41 Cr. for FY 2018-19.

The Commission has undertaken sharing of gains and losses of normative expenses vis-à-vis actual expenses for FY 2017-18 and FY 2018-19, as per CSERC MYT Regulations, 2015. As regards the sharing of gains and losses, the following provision has been inserted in Regulation 13.1 by the First Amendment to the CSERC MYT Regulations, 2015 on June 16, 2017:

*“Provided further that employee cost shall not be factored in for sharing of gains or losses on account of operations and maintenance expenses...”*

Accordingly, the Commission approves the Employee Expenses at actuals as Rs. 8.99 Cr. for FY 2017-18 and Rs. 9.12 Cr. for FY 2018-19.

The sharing of gains and losses in A&G expenses and R&M expenses, computed for FY 2017-18 is shown in the following Table:

**Table 5-6: Sharing of gain/ (loss) on A&G expenses and R&M expenses for FY 2017-18 and FY 2018-19 as approved by the Commission (Rs. Cr.)**

Sr. No.	Particular	FY 2017-18			FY 2018-19		
		Normative	Actual	Gain/ (Loss)	Normative	Actual	Gain/ (Loss)
1	Net A&G expenses	1.13	0.96	0.18	1.18	0.91	0.26
2	Net R&M expenses	1.65	0.61	1.04	1.73	1.37	0.36
3	Total Gain/(Loss)			1.22			0.62
4	CSLDC share (1/2 of Total Gain/(Loss))			0.61			0.31

In this Order, the Commission approves the O&M expenses based on audited accounts for FY 2017-18 and FY 2018-19. Further, the Commission approves sharing of gains of Rs. 0.61 Cr. for FY 2017-18 and Rs. 0.31 Cr. for FY 2018-19.

#### **5.4 Contribution to Pension and Gratuity Fund**

##### **CSLDC's Submission**

CSLDC submitted that the Commission, in the MYT Order, had allowed Contribution to Pension and Gratuity (P&G) fund of Rs. 1.32 Cr. for FY 2017-18 and Rs. 1.43 Cr. for FY 2018-19. CSLDC has considered the same amount as actual contribution and requested the Commission to approve the same.

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

The Commission notes that it has approved the Contribution to Pension and Gratuity Fund of Rs. 1.32 Cr. for FY 2017-18 and Rs. 1.43 Cr. for FY 2018-19. For the purpose of final true-up, the Commission approves the same amount for FY 2017-18 and FY 2018-19.

#### **5.5 Gross Fixed Assets and Means of Finance**

CSLDC has considered the opening GFA for FY 2017-18 same as the closing GFA approved in the final true-up for FY 2016-17. It has considered GFA addition of Rs. 0.46 Cr. as the actual capitalisation in FY 2017-18. There is no actual addition in GFA for FY 2018-19. As per Regulation 17 of the CSERC MYT Regulations, 2015, the normative debt: equity ratio of 70:30 has been considered for funding of the additional capitalisation for the year. The additional capitalisation has not been funded by any grants.

### Commission's View

The Commission has approved the closing GFA for FY 2016-17 as Rs. 15.13 Cr. after True-up in the Order dated February 28, 2018. The Commission has accordingly considered the same amount as Opening GFA for FY 2017-18. As discussed in earlier Chapter of this Order, the Commission notes that CSPTCL's audited accounts for FY 2017-18 and FY 2018-19 reported the actual capitalisation of Rs. 268.61 Cr. and Rs. 567.90 Cr. during the respective years. Out of this, an amount of Rs. 0.46 Cr. pertains to CSLDC for FY 2017-18. The Commission has considered the actual capitalisation of Rs. 0.46 Cr. for FY 2017-18 and nil for FY 2018-19, based on reconciliation submitted with audited accounts.

As regards the funding of capitalisation, the Commission has not considered any grants for FY 2017-18. Further, normative Debt: Equity ratio of 70:30 has been considered as per Regulation 17 of the CSERC MYT Regulations, 2015. Accordingly, the Commission approves the GFA and its funding for FY 2017-18 as shown in the following Table:

**Table 5-7: Gross Fixed Assets and its Funding for FY 2017-18 for CSLDC as approved by the Commission (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18	
		CSLDC Petition	Approved
1	GFA Addition	0.46	0.46
	<b>Means of Finance</b>		
2	Consumer Contribution	-	-
3	Equity	0.14	0.14
4	Debt	0.32	0.32
<b>5</b>	<b>Total Capitalisation</b>	<b>0.46</b>	<b>0.46</b>

**Since, there is no actual capitalisation, the Commission has considered GFA addition as Nil for FY 2018-19**

## 5.6 Depreciation

### CSLDC's Submission

CSLDC submitted that its asset base comprises of SCADA system, computer terminals, equipment, building, etc. The closing GFA of Rs. 15.13 Cr. as approved in the true-up Order for FY 2016-17 is considered as the opening GFA for FY 2017-18. The asset base has been identified from the accounts of CSPTCL by Asset

Segregation Committee and the same has been considered in its computations. As the asset class-wise segregation of the CSLDC's asset base is not available, the weighted average depreciation rate considered for CSPTCL has been considered for CSLDC. Regulation 24.5 of CSERC MYT Regulations, 2015 specifies that, till CSLDC is part of CSPTCL, the depreciation shall be calculated as applicable for CSPTCL. Since, CSLDC is not operating as a separate Company, the depreciation as applicable to CSPTCL has been considered. CSLDC requested to approve depreciation of Rs. 0.81 Cr. for FY 2017-18 and Rs. 0.82 Cr. for FY 2018-19.

### Commission's View

The Commission has approved the depreciation for FY 2017-18 and FY 2018-19 in accordance with the approach adopted in the past Orders. The closing GFA approved in the true up for FY 2016-17, has been considered as the opening GFA for FY 2017-18. The GFA addition for FY 2017-18 and FY 2018-19 has been considered as approved earlier Section of this Chapter. The consumer contribution in GFA addition for FY 2017-18 and FY 2018-19 has been considered as nil. The weighted average depreciation rate of 5.26%, computed for CSPTCL on the basis of depreciation rates specified in the CSERC MYT Regulations, 2015, has been considered for FY 2017-18 and FY 2018-19. The depreciation approved by the Commission for FY 2017-18 and FY 2018-19 is shown in the Table below:

**Table 5-8: Depreciation for FY 2017-18 and FY 2018-19 for CSLDC as approved by the Commission (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	CSLDC Petition	Approved	MYT Order	CSLDC Petition	Approved
1	Opening GFA	19.23	15.13	15.13	21.18	15.59	15.59
2	Add: Additional capitalization during the year	1.95	0.46	0.46	1.30	-	-
3	GFA at the end of the year	21.18	15.59	15.59	22.48	15.59	15.59
4	Average GFA for the year	20.21	15.36	15.36	21.83	15.59	15.59
5	Depreciation Rate	5.25%	5.26%	5.26%	5.25%	5.26%	5.26%
6	<b>Depreciation</b>	<b>1.06</b>	<b>0.81</b>	<b>0.81</b>	<b>1.15</b>	<b>0.82</b>	<b>0.82</b>



## **5.7 Interest on Loan**

### **CSLDC's Submission**

CSLDC has calculated Interest and Finance Charges as per Regulation 23 of the CSERC MYT Regulations, 2015. CSLDC is not operating as a separate Company and, therefore, the actual loan as applicable to CSPTCL has been considered. CSLDC has considered the approved closing normative loan balance for FY 2016-17 as per the true-up Order, as the opening normative loan balance for FY 2017-18. The debt component of 70% of the GFA addition has been considered as the normative loan addition during the year for respective years. The allowable depreciation for the year has been considered as the normative repayment for the year. The rate of interest has been computed in accordance with Regulation 23.5 of the CSERC MYT Regulations, 2015. The actual weighted average interest rate of 10.06% for FY 2017-18 and 10.86% for FY 2018-19 has been considered by CSLDC for computation of the interest on loan. CSLDC requested to approve the Interest and Finance Charges of Rs. 0.39 Cr. for FY 2017-18 and Rs. 0.35 Cr. for FY 2018-19.

### **Commission's View**

The Commission has approved interest on loan capital for FY 2017-18 as per Regulation 23 of the CSERC MYT Regulations, 2015. The Commission has considered the closing net normative loan balance for FY 2016-17, as approved after True-up, as the opening net normative loan balance for FY 2017-18. The addition of normative loan has been considered based on debt component towards additional capitalisation, as considered earlier in this Chapter. The repayment has been considered equal to net depreciation approved by the Commission in this Order for the respective years.

Regulation 23.5 of the CSERC MYT Regulations, 2015 specifies the rate of interest based on actual loan portfolio at the beginning of the year. For computation of weighted average rate of interest, the Commission has considered the applicable rate of interest on the outstanding loan portfolio of CSPTCL at the beginning of the financial year as per the audited accounts of FY 2017-18 and FY 2018-19, in absence of segregation of actual loan for CSLDC. Accordingly, the Commission has computed the weighted average rate of interest of 10.06% for FY 2017-18 and 10.86% for FY 2018-19.

The interest on loan approved for FY 2016-17 and FY 2017-18 is shown in the Table below:

**Table 5-9: Interest on Loan for FY 2017-18 and FY 2018-19 for CSLDC approved by Commission (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	CSLDC Petition	Approved	MYT Order	CSLDC Petition	Approved
1	Total Opening Net Loan	6.63	4.08	4.08	6.94	3.59	3.59
2	Repayment during the period	1.06	0.81	0.81	1.15	0.82	0.82
3	Additional Capitalization of Borrowed Loan during the year	1.37	0.32	0.32	0.91	-	-
4	Total Closing Net Loan	6.94	3.59	3.59	6.70	2.77	2.77
5	Average Loan during the year	6.79	3.84	3.84	6.82	3.18	3.18
6	Weighted Average Interest Rate	12.20%	10.06%	10.06%	12.20%	10.86%	10.86%
7	<b>Interest Expenses</b>	<b>0.83</b>	<b>0.39</b>	<b>0.39</b>	<b>0.83</b>	<b>0.35</b>	<b>0.35</b>

## 5.8 Return on Equity (RoE) and Income Tax

### CSLDC's Submission

CSLDC has computed Return on Equity (RoE) as per the Regulation 22 of the CSERC MYT Regulations, 2015. The closing equity balance of FY 2016-17, as approved in the true-up Order, has been considered as opening equity balance for true-up of FY 2017-18. The equity addition during FY 2017-18 and FY 2018-19 has been considered as 30% of the capitalisation during the year for respective years. CSLDC has considered base rate of RoE of 15.50% (without grossing up by MAT rate). Since, CSLDC has not paid any Income Tax during FY 2017-18 and FY 2018-19, no Tax has been considered for the year. CSLDC requested to approve RoE of Rs. 0.77 Cr. for FY 2017-18 and Rs. 0.78 Cr. for FY 2018-19.

### Commission's View

Regulation 22 of the CSERC MYT Regulations, 2015 specifies that RoE shall be computed by grossing up the base rate with the prevailing MAT rate of the base year for projection purposes. The Commission notes that CSLDC has not paid any Income Tax separately, hence, rate of return of RoE has not been grossed up with the prevailing MAT rate. Accordingly, the Commission has approved RoE at rate of 15.50% as per Regulation 22 of the CSERC MYT Regulations, 2015.

For computation of RoE, the Commission has considered the closing equity as approved for FY 2016-17 after True-up, as opening equity for FY 2017-18. The equity addition for FY 2017-18 and FY 2018-19 has been considered based on the actual capitalisation as approved earlier in this Order. The Commission approves the RoE for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 5-10: Return on Equity for FY 2017-18 and FY 2018-19 for CSLDC as approved by Commission (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	CSLDC Petition	Approved	MYT Order	CSLDC Petition	Approved
1	Permissible Equity in Opening GFA	6.17	4.90	4.90	5.04	5.04	5.04
2	Addition of Permissible Equity during the year	0.58	0.14	0.14	0.40	-	-
3	Permissible Equity in Closing GFA	6.75	5.04	5.04	7.14	5.04	5.04
4	Average Gross Permissible Equity during the year	6.46	4.97	4.97	6.95	5.04	5.04
5	Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
<b>6</b>	<b>Return on Equity</b>	<b>1.00</b>	<b>0.77</b>	<b>0.77</b>	<b>1.08</b>	<b>0.78</b>	<b>0.78</b>

## 5.9 Interest on Working Capital (IoWC)

### CSLDC's Submission

CSLDC has considered IoWC as per Regulation 25 of the CSERC MYT Regulations, 2015. CSLDC has considered the interest rate of 12.60% for FY 2017-18 and 12.20% for FY 2018-19 for computing the IoWC for both FY 2017-18 and FY 2018-19, respectively. CSLDC requested to approve IoWC of Rs. 0.26 Cr. for FY 2017-18 and 0.33 Cr. for FY 2018-19.

### Commission's View

The Commission has computed IoWC in accordance with Regulation 25 of the CSERC MYT Regulations, 2015. For computation of working capital requirement as per the formula specified in the CSERC MYT Regulations, 2015, the Commission has considered the revised normative value of O&M expenses for FY 2017-18 and FY 2018-19, as approved earlier in this Order. Further, the receivables have been considered based on the actual revenue of CSLDC during FY 2017-18 and FY 2018-19. The interest rate of 12.60% and 12.20% has been considered for FY 2017-18 and

FY 2018-19, respectively, as per Regulation 25.4 of the MYT Regulations, 2015. The normative IoWC approved for FY 2017-18 and FY 2018-19 is shown in the Table below:

**Table 5-11: IoWC approved for FY 2017-18 and FY 2018-19 for CSLDC by the Commission (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	CSLDC Petition	Approved	MYT Order	CSLDC Petition	Approved
1	O&M expenses for One Month	0.84	0.88	0.74	0.91	0.95	0.78
2	Maintenance Spares @ 40% of R&M Expenses	0.72	0.24	0.66	0.77	0.55	0.69
3	Receivables @ 1 Month	1.14	0.91	0.91	1.23	1.17	1.17
4	Total Working Capital requirement	2.70	2.04	2.32	2.92	2.67	2.64
5	Rate of Interest on WC	13.20%	12.60%	12.60%	13.20%	12.20%	12.20%
6	<b>Net Interest on Working Capital</b>	<b>0.36</b>	<b>0.26</b>	<b>0.29</b>	<b>0.38</b>	<b>0.33</b>	<b>0.32</b>

## 5.10 Non-Tariff Income

### CSLDC's Submission

CSLDC submitted the actual Non-tariff income of Rs. 0.03 Cr. for FY 2017-18 and Rs. 0.03 Cr. for FY 2018-19.

### Commission's View

The Commission has considered Non-tariff Income for CSLDC as per segmental notes of audited accounts of FY 2017-18 and FY 2018-19. Accordingly, the Commission considers NTI of Rs. 0.03 Cr. for FY 2017-18 and Rs. 0.03 Cr. for FY 2018-19, which is the same value as submitted by CSLDC.

## 5.11 Aggregate Revenue Requirement for CSLDC

Based on the above, the ARR approved for CSLDC for final truing-up for FY 2017-18 and for FY 2018-19 is shown in the Table below:

**Table 5-12: Aggregate Revenue Requirement (ARR) for FY 2017-18 and FY 2018-19 approved by the Commission (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18			FY 2018-19		
		MYT Order	CSLDC Petition	Approved after True-up	MYT Order	CSLDC Petition	Approved after True-up
1	Employee Expense	6.75	8.99	8.99	7.36	9.12	9.12
2	A&G Expenses	1.23	0.96	0.96	1.32	0.91	0.91
3	R&M Expenses	1.80	0.61	0.61	1.92	1.37	1.37
4	Provision for Interim Wage Relief Impact	0.34	-	-	0.37	-	-
5	Sharing of Gain/(Loss) for O&M Efficiency	-	0.61	0.61	-	0.31	0.31
6	Contribution to P&G	1.32	1.32	1.32	1.43	1.43	1.43
7	Depreciation	1.06	0.81	0.81	1.15	0.82	0.82
8	Interest on Loan	0.83	0.39	0.39	0.83	0.35	0.35
9	Interest on Working Capital	0.36	0.26	0.29	0.38	0.33	0.32
10	Return on Equity	1.00	0.77	0.77	0.38	0.78	0.78
11	<b>Gross Aggregate Revenue Requirement</b>	<b>14.69</b>	<b>14.70</b>	<b>14.74</b>	<b>15.84</b>	<b>15.42</b>	<b>15.42</b>
12	Less: Non-Tariff Income	1.05	0.03	0.03	1.05	0.03	0.03
13	<b>Net Aggregate Revenue Requirement</b>	<b>13.64</b>	<b>14.67</b>	<b>14.71</b>	<b>14.79</b>	<b>15.39</b>	<b>15.39</b>

## 5.12 Revenue from CSLDC Charges

### CSLDC's Submission

CSLDC submitted the revenue from CSLDC charges of Rs. 10.96 Cr. for FY 2017-18 and Rs. 14.10 Cr. for FY 2018-19 based on the audited accounts.

### Commission's View

For the purpose of true-up, the Commission has considered the revenue from CSLDC Charges of Rs. 10.96 Cr. for FY 2017-18 and Rs. 14.10 Cr. for FY 2018-19 based on audited accounts submitted by CSLDC for respective years.

## 5.13 Revenue Gap/(Surplus) for CSLDC

### CSLDC's Submission

CSLDC submitted the Revenue Gap/(Surplus) for FY 2017-18, as shown in the following Table:

**Table 5-13: Revenue Gap / (Surplus) for FY 2017-18 submitted by CSLDC (Rs. Cr.)**

Sr. No.	Particulars	FY 2017-18
1	Annual Revenue Requirement	14.67
2	<i>Less:</i> Revenue from SLDC Charges	10.96
3	Standalone Revenue Gap / (Surplus)	3.71
4	Past Gap / (Surplus)	-
5	Total Revenue Gap / (Surplus)	3.71

CSLDC further submitted that the Commission had approved Revenue Deficit of Rs. 2.66 Cr. during provisional true-up of ARR for FY 2017-18, which along with the carrying cost was adjusted in the tariff for FY 2019-20. The differential Revenue Gap of Rs.  $(3.71 - 2.66) =$  Rs. 1.05 Cr., along with carrying from mid-point of FY 2017-18 to mid-point of FY 2020-21 needs to be adjusted in the revenue requirement of CSPDCL for FY 2020-21.

Further, CSLDC submitted the standalone Revenue Gap/(Surplus) for FY 2018-19 as shown in the following Table:

**Table 5-14: Revenue Gap / (Surplus) for FY 2018-19 submitted by CSLDC (Rs. Cr.)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2018-19</b>
1	Aggregate Revenue Requirement	15.39
2	Less: Revenue from SLDC Charges	14.10
3	Standalone Revenue Gap/(Surplus)	1.29

The revenue deficit of Rs. 1.29 Cr. for FY 2018-19 with carrying cost for applicable period is to be adjusted in the revenue requirement of CSPDCL for FY 2020-21.

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

After undertaking the final true-up for FY 2017-18, the Commission has computed the Revenue Gap/(Surplus) for FY 2017-18, as shown in the following Table:

**Table 5-15: Revenue Gap/(Surplus) for FY 2017-18 for CSLDC as approved by the Commission (Rs. Cr.)**

<b>Sr. No</b>	<b>Particulars</b>	<b>FY 2017-18</b>
1	Annual Revenue Requirement	14.71
2	Less: Revenue from SLDC Charges	10.96
3	Revenue Gap / (Surplus)	<b>3.75</b>

For computing the cumulative revenue surplus on account of final true-up for FY 2017-18, the Commission has considered the above approved revenue gap. The carrying cost on Revenue Gap approved in final True up for FY 2017-18 has been computed for three years, i.e., from mid-point of FY 2017-18 to mid-point of FY 2020-21.

The Commission has approved revenue gap of Rs. 2.66 Cr. after provisional trueing up for FY 2017-18. This Revenue gap has been adjusted in ARR of FY 2019-20 for CSPDCL, which works out as Rs. 3.58 Cr. and the same has been adjusted against the cumulative Revenue Gap at end of FY 2019-20.

**Accordingly, the Commission approves the cumulative revenue gap of Rs. 1.54 Cr. at end of FY 2020-21 on account of final true-up for FY 2017-18.**

Further, after undertaking true-up for FY 2018-19, the Commission has computed the Revenue Gap/(Surplus) for CSLDC as shown in the Table below:

**Table 5-16: Revenue Gap/(Surplus) for FY 2018-19 for CSLDC as approved by the Commission (Rs. Cr.)**

<b>Sr. No</b>	<b>Particulars</b>	<b>FY 2018-19</b>
1	Annual Revenue Requirement	15.39
2	Less: Revenue from SLDC Charges	14.10
3	Revenue Gap / (Surplus)	<b>1.29</b>

The Commission hereby approves the Revenue Gap after Truing-up of FY 2018-19 as shown in the Table above. Further, carrying cost on the Revenue Gap approved in True up for FY 2018-19 has been computed for two years, i.e., from mid-point of FY 2018-19 to mid-point of FY 2020-21.

**Accordingly, the Commission approves cumulative revenue gap of Rs. 1.63 Cr. on account of final true-up for FY 2018-19.**

**Accordingly, the Revenue Gap including carrying cost, which is required to be factored in the revenue requirement of CSPDCL for FY 2020-21 works out to Rs. 3.18 Cr.. (i.e., Revenue Gap of Rs. 1.54 Cr. + Revenue Gap of Rs. 1.63 Cr.)**

**The Commission approves the cumulative Revenue Gap of Rs. 3.18 Cr. for CSLDC on account of final true-up for FY 2017-18 and for FY 2018-19. The same Revenue Gap has been adjusted in revenue requirement of CSPDCL for FY 2020-21, as discussed in subsequent Chapter of this Order.**



## 6 FINAL TRUE-UP OF FY 2017-18 AND PROVISIONAL TRUE-UP OF FY 2018-19 FOR CSPDCL

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### 6.1 Background

It is noted that CSPDCL did not file tariff petition. The Commission, by virtue of the direction issued by the Hon'ble APTEL dated November 11, 2011 in OP No. 01 of 2011, registered a suo-motu petition no. 12 of 2020 on January 9, 2020 and proceeded with determination of tariff for the year FY 2020-21. However, in reply to the notice issued by the Commission, CSPDCL filed detailed petition for final true-up for FY 2017-18, provisional true up for FY 2018-19, and determination of retail supply tariff for FY 2020-21.

Regulation 10.2 and 10.3 of the CSERC MYT Regulations, 2015 specifies as under:

*“10.2 .....The Distribution Licensee shall file an application for truing up of the previous year(s) and determination of tariff for the ensuing year, within the time limit specified in these Regulations.*

... ..

*10.3. In case the audited accounts are not available, the provisional truing up shall be done on the basis of un-audited/ provisional account and shall be subject to further final truing up, as soon as the audited accounts is available.”*

As regards the status of finalisation of audited accounts for FY 2017-18, it has been understood from CSPDCL's submission that statutory auditor has been appointed and the process of audit is underway. As the process involves issuance of AG certificate as well as Board of Director's approval post completion of audit, the whole process could be completed during the proceedings of this petition.

In accordance with the above, the Commission has undertaken the final true-up for FY 2017-18 and provisional true-up for FY 2018-19. The final true-up for FY 2018-19 shall be undertaken in the next Tariff Petition which may be based on audited accounts, provided that CSPDCL files the true-up petition for FY 2018-19 based on audited accounts.

In this chapter, the Commission has analysed all the elements of audited/actual expenditure and revenue of CSPDCL for FY 2017-18 and FY 2018-19 and undertaken final and provisional true-up of expenses and revenue in accordance with Regulation 10 of CSERC MYT Regulations, 2015. Further, the Commission has also

considered the approval made by this Commission during provisional true-up of FY 2017-18, while deciding on the final true-up of FY 2017-18.

The Commission has approved the sharing of gains and losses on account of controllable factors between CSPDCL and consumers, in accordance with Regulation 13 of the CSERC MYT Regulations, 2015.

## **6.2 Energy Sales**

### **CSPDCL's Submission**

CSPDCL submitted that there were 49,87,761 consumers at LV level and 2,769 consumers at HV and EHV level during FY 2017-18. In FY 2018-19, the number consumers of LV and EHV/HV categories increased to 56,10,400 and 2,918 respectively. The Commission in MYT Order had merged HV and EHV categories into supply at HV level effective from 1<sup>st</sup> April 2016. CSPDCL submitted that the connected load recorded during FY 2017-18 was 5,399.69 MW at LV level and 2,825.51 MW at EHV & HV level. Similarly, the connected load was 5,885.15 MW for LV and 3,059.16 MW for EHV and HV level during FY 2018-19.

The category-wise energy sales were recorded as 20,362.53 MU for FY 2017-18 and 22,210.22 MU for FY 2018-19.

### **Commission's View**

The Commission sought actual category-wise sales in kWh for all LV consumers and category wise sales in kVAh for all HV consumers. The details of slab-wise consumption within domestic categories were also sought for FY 2017-18 and FY 2018-19. CSPDCL submitted R-15 sheet for FY 2017-18 and FY 2018-19. The Commission also sought voltage-wise break up for HV and EHV sales for both the years.

During the provisional true-up for FY 2017-18, the Commission noted that for agriculture category, billing was done on assessment basis. Regarding the defective meters, the Commission during provisional true-up for FY 2017-18 observed that 4% of the total meters are found defective across all categories. The contribution of defective meters in case of Domestic and Agriculture category is much higher. The relevant extract of the order is as under:

*“As regards the defective meters, the Commission observes that 4% of the total meters are found defective for all categories during FY 2016-17 and FY 2017-18, as shown in the table below:*

*... ..*

*It is observed that defective meters amongst domestic consumers is pretty high and constitute around 82% and 81% of total defective meters for FY 2016-17 and FY 2017-18, respectively. Similarly, agriculture category constitutes 13.2% and 13.5% of total defective meters for respective years.*

*Within domestic category 3.8% and 4% were defective in FY 2016-17 and FY 2017-18. Similarly, in agriculture category 6.5% and 6.8% were defective, and for street light 6.9% and 8.1% were defective for respective years. As regards the assessed billing, the Commission observes as under:*

- (a) During FY 2016-17, approximately 30% of the total sales are based assessed billing, which amounts to assessed units of 3892.33 MU. The corresponding figures for FY 2017-18 are 22% and 3907.53 MU, respectively. Thus, the number of assessed units increased in FY 2017-18, which is a matter of concern.*
- (b) Out of total assessed units, 2612.67 MU in FY 2016-17 and 2748.97 MU in FY 2017-18 relates to Agriculture category. Thus, assessed billing in agriculture category is as high as 61% in FY 2016-17 and 57% in FY 2017-18, which is indicative of poor billing practices.*
- (c) Apart from Agriculture, assessed billing is also commonly prevalent in Domestic BPL category, i.e., 829.90 MU in FY 2016-17 and 723.79 MU in FY 2017-18. In this sub-category, 71% of billing in FY 2016-17 and 67% in FY 2017-18 was done on assessment basis.*
- (d) The concentration of assessed billing is observed mainly in 4 circles, namely, Baloda bazar, Rajnandgaon, Kawardha and Kanker Circle, with more than 50% of sales on the basis assessed billing. Besides, in Raipur O&M, Mahasamund, Durg and Bilaspur Circle, the assessed billing is more than 40%, whereas, in Raipur City Circle I & II, Durg City, Bilaspur City and Raigarh Circle, the assessed billing was found to be less than 5%. This is indicative of wide variation in billing practices by CSPDCL from circle to circle, which needs to be corrected. ... ..*

***It is mandatory under the Electricity Act, 2003, to ensure the supply of electricity through installation of a meter only. Further, the CSERC (Standard of Performance in Distribution of Electricity) Regulations, 2006 prescribes the ceiling for defective meters at 2.5% of total meters and Chhattisgarh State Electricity Supply Code, 2011, as amended from time to time, restricts the period for average billing for maximum two months. In light of foregoing, the Commission is of view that prevalent billing practices are in contradiction of the Electricity Act, 2003 and Regulations. It is pertinent to note that the existing SAP software captures data regarding defective meters, assessed billing, etc., on a monthly basis and the same is readily available with the field level officers of CSPDCL. It appears that such critical data sets are not being put to effective use to take corrective action in the interest of consumers, whereas the towards installation of SAP has already been passed on to the consumers in preceding Tariff Orders.***

*The Commission directs CSPDCL to prepare an action plan and take corrective measures to bring down percentage of defective meters and assessment-based billing within prescribed ceiling.”*

The Commission notes that, in previous order, it has directed CSPDCL to prepare an action plan and take corrective measures to bring down percentage of defective meters and assessment-based billing within prescribed ceiling. A separate suo-motu petition may be initiated to ensure compliance on the directions issued.

Further, the Commission sought details of Average Billing Rate (ABR) at actual vis-à-vis ABR approved in Tariff Order. It is observed that actual ABR is lower than the approved ABR for most of the categories. In response, CSPDCL submitted that ABR is reduced due to reduction in sales and revenue as compared to approved ABR in respective Tariff Orders. Further, CSPDCL has clarified that energy sales consumption and revenue shown against each slab in R-15, being non-telescopic in nature, per unit rate did not match with rate approved by the Commission for each slab. The Commission analysed sales and revenue data in R-15 for domestic category and accepts the submission of the CSPDCL.

### **Agriculture Consumption**

The Commission sought details of load factor of consumption by LV Agriculture category. In response to this, CSPDCL submitted the details of month wise load factor for FY 2017-18 and FY 2018-19. It is observed that, actual annual load factor recorded was 45.65% for FY 2017-18 and 45.73% for FY 2018-19, which translates to average running of 10 to 11 hours per day through the year. In some months, the actual load factor has increased to the level of more than 60%. (61.77% in August 2017, 60.71% in September 2017 and 65.35% in October 2018). Also, CSPDCL submitted that actual average hours of supply to LV Agriculture Category covered under separated 11 kV feeders is 18 hours and not covered under separated 11 kV feeders and connected to Other feeder is 23 hours in each month.

Further, the Commission observes that the actual ABR realised for Agriculture category is much lower than the approved ABR. CSPDCL submitted that the variation in the actual ABR and approved ABR is because of implementation of Government of Chhattisgarh notification on flat rate tariff. Government of Chhattisgarh is providing subsidy to Agriculture consumers upto 5 HP since November 2, 2009. After this, directive was issued vide Notification dated September 19, 2013 conveying the decision of giving option of billing on flat rate basis to agriculture consumers.

CSPDCL further submitted that current billing to Agriculture consumer is done strictly as per provisions of prevailing tariff orders and notification of Government of Chhattisgarh.

The Commission, in Tariff Order for FY 2019-20, did not find any reason for reduction in energy charge recovery due to introduction of subsidy to flat rate consumers and had adopted the approach for consideration of additional revenue for Agriculture Category. In the said Order, it is stated that, CSPDCL is bound to levy the tariff approved by the Commission in its respective Tariff Order for all categories including Agriculture consumers. Any form of subsidy given by the State Government is a relief to that category of consumers and therefore part of the approved tariff is to be recovered in the form of subsidy from the Government and the balance part is to be levied to consumers of that category. Overall CSPDCL is liable to recover the tariff approved by Commission (partly from consumers and partly from State Government). Hence, the recovery of revenue as per approved tariff is the responsibility of CSPDCL, either from GoCG through subsidy or from agricultural consumers through energy charges.

Accordingly, the similar details were sought from CSPDCL, which is shown in Table below:

**Table 6-1: Sales and Energy Charge for Agriculture Category**

<b>Consumer Category</b>	<b>Nos. of Consumer</b>	<b>Units Sold</b>	<b>Energy Charge Billed</b>	<b>Average Energy Charge</b>	<b>Approved Energy Charge</b>
	<b>Nos.</b>	<b>MU</b>	<b>Rs. Cr.</b>	<b>Rs. /kWh</b>	<b>Rs. /kWh</b>
<b>FY 2017-18</b>					
A-Metered KJJY	151,246.00	993.50	465.89	4.69	4.80
B-Flat rate KJJY	119,711.00	1,537.26	400.45	2.60	4.80
General/Other	130,033.00	1,668.86	798.24	4.78	4.80
Total	400,990.00	4,199.62	1,664.58	3.96	4.80
<b>Difference in Energy Charge Recovery</b>					<b>0.84</b>
<b>FY 2018-19</b>					
A-Metered KJJY	148,791.00	958.88	445.65	4.65	4.70
B-Flat rate KJJY	144,838.00	1,782.78	461.60	2.59	4.70
General/Other	129,026.00	1,659.00	778.21	4.69	4.70
Total	422,655.00	4,400.66	1,685.46	3.83	4.70
<b>Difference in Energy Charge Recovery</b>					<b>0.87</b>

From the above table, it is observed that there is difference in energy charge recovery of Rs. 0.84/kWh for FY 2017-18 and Rs. 0.87/kWh for FY 2018-19, which amounts to under-recovery of Rs. 351.24 cr. for FY 2017-18 and Rs. 382.85 cr. for FY 2018-19.

**In view of the above, the Commission has considered amount of Rs. 351.24 Cr. for FY 2017-18 and Rs. 382.85 Cr. for FY 2018-19 as an additional revenue while approving final and provisional true-up for respective years.**

Further, Regulation 11.1 of the CSERC MYT Regulations, 2015 specifies sales mix and quantum of sales as an uncontrollable factor. The Commission therefore approves the energy sales submitted by CSPDCL in its Petition for final True-up of FY 2017-18 and provisional True-up of FY 2018-19.

The consumer category-wise sales for FY 2017-18 estimated in Tariff Order, actual sales submitted by CSPDCL and True-up sales approved in this order are shown in the Table below:

**Table 6-2: Approved Energy Sales for FY 2017-18 (MU)**

<b>Consumer Category</b>	<b>Tariff Order</b>	<b>Petition</b>	<b>Approved</b>
<b>LV Categories (A)</b>	<b>12441.2</b>	<b>11,494.55</b>	<b>11,494.55</b>
Domestic Including BPL Consumers	5981.29	4,800.03	4,800.03
Non-Domestic (Normal Tariff)	974.80	855.08	855.08
Non-Domestic (Demand Based)	51.31	41.64	41.64
Agriculture	3932.09	4,199.62	4,199.62
Agriculture allied	17.26	17.87	17.87
LT Industry	492.25	524.80	524.80
Public Utilities	300.62	353.16	353.16
IT Industry		-	-
Temporary	691.58	702.35	702.35
<b>HV Categories (B)</b>	<b>9350.26</b>	<b>8,867.98</b>	<b>8,867.98</b>
Railway Traction	922.78	925.43	925.43
Mines (Coal & Others)	604.2	616.66	616.66
Other Industry & General Purpose Non-Industrial	2750.05	2,150.12	2,150.12
Steel Industries	4618.38	4,837.17	4,837.17
Low load factor Industries	79.35	-	-
PWW, Irrigation & Agriculture allied activities	73.15	126.42	126.42
Residential Purpose	262.41	191.00	191.00
Start-up Power Tariff	38.67	19.94	19.94
Industries related to manufacturing of equipment for power generation from RE sources	1.27	1.24	1.24
IT Industries	-	-	-
Temporary	-	-	-
<b>Grand Total (A+B)</b>	<b>21,791.46</b>	<b>20,362.53</b>	<b>20,362.53</b>

Also, the consumer category-wise sales for FY 2018-19 estimated in MYT Order/ARR Order, actual sales submitted by CSPDCL and Trued-up sales approved in this Order are shown in the Table below:

**Table 6-3: Approved Energy Sales for FY 2018-19 (MU)**

<b>Consumer Category</b>	<b>Tariff Order</b>	<b>Petition</b>	<b>Approved</b>
<b>LV Categories (A)</b>	12,454.79	11,907.93	11,907.93
Domestic Including BPL Consumers	5,785.87	4,997.51	4,997.51
Non-Domestic (Normal Tariff)	915.37	876.46	876.46
Non-Domestic (Demand Based)	47.36	44.76	44.76
Agriculture Metered	3,905.34	4,400.92	4,400.92
Agriculture allied	15.34	16.50	16.50
LT Industry	560.34	538.68	538.68
Public Utilities	382.72	364.26	364.26
IT Industry	0.00	0.01	0.01
Temporary	842.41	668.83	668.83
<b>HV Categories (B)</b>	9,219.79	10,302.29	10,302.29
Railway Traction	952.87	983.48	983.48
Mines (Coal & Others)	828.33	629.21	629.21
Other Industry & General Purpose Non-Industrial	2,207.77	2,050.45	2,050.45
Steel Industries	4,772.93	6,307.98	6,307.98
Low load factor Industries	0.00	0.00	0.00
PWW, Irrigation & Agriculture allied activities	119.41	135.61	135.61
Residential Purpose	187.93	182.36	182.36
Start-up Power Tariff	144.49	12.36	12.36
Industries related to manufacturing of equipment for power generation from RE sources	2.49	0.39	0.39
IT Industries	0.00	0.44	0.44
Temporary	3.74	0.00	0.00
<b>Grand Total (A+B)</b>	<b>21,674.76</b>	<b>22,210.22</b>	<b>22,210.22</b>

Further, the Commission, while undertaking provisional true-up for FY 2017-18, has directed CSPDCL to undertake a study to reconcile the number of its LV-Non-Domestic consumers with number of commercial establishments registered with various Municipal Corporations in Chhattisgarh, and cover all such consumers in relevant category. Further, CSPDCL was also directed to furnish the reasons for such mismatch. However, no such

details were submitted by CSPDCL. The Commission is of the view that the compliance of the directives may be monitored through a separate suo-motu Petition.

### 6.3 Distribution Loss and Energy Balance

#### CSPDCL's Submission

CSPDCL submitted that the energy losses for 33 kV and below system has been computed based on Regulation 71.1 and 71.2 of the CSERC MYT Regulations, 2015 as shown below:

*71.1 "The energy loss for 33 kV and below voltage level, shall be evaluated taking into consideration the clause 4.2.5 and 8.4.3 of the State Grid Code 2011. The difference between the energy injected at 33 kV voltage level and the sum of energy sold to all consumers (retail and open access), at voltage level 33 kV and below shall be the energy loss for the 33 kV and below system. The same shall be considered for gain/loss at the time of true up.*

*71.2. Energy sold shall be the sum of the metered sales and assessed unmetered sales, if any, based on prudence check by the Commission."*

In view of the above said provisions, CSPDCL submitted the Distribution Loss and Energy Balance for FY 2017-18 and FY 2018-19 as shown in the following Table:

**Table 6-4: Energy Balance for FY 2017-18 and FY 2018-19 as submitted by CSPDCL (MU)**

Sr. No	Particulars	FY 2017-18		FY 2018-19	
		Provisional True-up	Petition	Tariff Order	Petition
1	LV Sales	11,494.55	11,494.54	12,455	11,907.93
2	HV Sales	6,335.87	6,335.87	6,356	7,066.81
3	Total Below EHV Level	17,830.42	17,830.41	18,811	18,974.74
4	<b>Distribution Loss below 33 kV (in %)</b>	<b>20.08%</b>	<b>19.36%</b>	<b>16.50%</b>	<b>19.27%</b>
5	Distribution Loss below 33 kV (in MU)	4,478.94	4,280.22	3,717	4,528.79
6	Gross Energy requirement at 33 kV Level	22,309.36	22,110.64	22,528	23,503.53
7	<i>Less: Direct Input to distribution at 33 kV Level</i>	217.80	217.79	257	149.75
8	Net Energy Input required at Distribution Periphery at 33 kV Level	22,091.56	21,892.85	22,271	23,353.78
9	Sales to EHV consumers	2,532.11	2,532.11	2,864	3,235.48
10	Net energy requirement at Distribution periphery	24,623.67	24,424.96	25,135	26,589.25
11	<b>Distribution loss including EHV Sales</b>	<b>18.03%</b>	<b>17.37%</b>	<b>14.64%</b>	<b>16.94%</b>



### **Incentive for over-achievement of distribution loss**

CSPDCL submitted that CSERC MYT Regulations, 2015 mandates the monitoring of energy losses of 33 kV and below system, where it is specified that:

*“71.3. Energy Loss trajectory for 33 KV and below system for State utility for each year of the control period shall be as under*

*FY 2016-17 - 22.0%*

*FY 2017-18 - 21.0%*

*FY 2018-19 - 20.0%*

*FY 2019-20 - 19.0%*

*FY 2020-21 - 18.0%*

*For other distribution licensees, the trajectory shall be given in the respective tariff order.”*

However, in the 1<sup>st</sup> Amendment to the CSERC MYT Regulations notified on 16<sup>th</sup> June 2017, the following proviso was added in Clause 71.3:

*“Provided that if the State utility enters into any agreement with Government of India and/or Chhattisgarh Government and energy loss trajectory committed in this agreement is contrary to that as specified in this Regulations, the energy loss trajectory agreed under the agreement shall prevail over the energy loss specified in this Regulations.”*

CSPDCL has already signed a “Tripartite Memorandum of Understanding” with Ministry of Power (Government of India) and Government of Chhattisgarh under UDAY to achieve financial turnaround on dated 25<sup>th</sup> January 2016. The targets specified under UDAY are reiterated as follows:

*“1.3 (c) The CSPDCL shall endeavour to reduce AT&C Losses from 22.50% in the FY 2014-15 to 15% by FY 2018-19 as per the following trajectory:*

<i>Year</i>	<i>FY 2015-16</i>	<i>FY 2017-18</i>	<i>FY 2017-18</i>	<i>FY 2018-19</i>
<i>AT&amp;C losses</i>	<i>21.00</i>	<i>18.93</i>	<i>18.00</i>	<i>15.00</i>

*However, if the target in particular year is not met, then the CSPDCL shall strive to achieve the targets in subsequent years so as to achieve the desired target of 15% AT&C losses by the FY 2018-19.”*

It is evident from the above that, under the terms of UDAY, following exists;

- (a) AT&C loss targets for a particular year are not fixed but are flexible in nature.

- (b) AT&C loss targets mentioned are for complete distribution system (HV and LV) and separate targets are not specified for 33 kV and below system.
- (c) There is no separate mention or commitment of any trajectory specifically for T&D Losses for 33 kV and below network.

AT&C losses trajectory as specified in the UDAY MoU is on best effort basis and is dependent on counter obligations/commitments from Government of India (GoI) and Government of Chhattisgarh (CoCG) in terms of funding and other support, and accordingly CSPDCL endeavours to achieve the targets specified therein. However, CSPDCL is at the stage of filing an appeal against considerations given to the targets specified under UDAY scheme to modify energy balance and distribution loss in final true up of FY 2016-17 and provisional true up of FY 2017-18 in Tariff Order dated February 28, 2019. This will have a bearing on present tariff Petition.

CSPDCL further submitted that, with the committed efforts under UDAY, it is expected to achieve a target lower than that specified in CSERC MYT Regulations, 2015. CSPDCL would further like to submit that it is committed to pass on the benefits of UDAY to the consumers of the state. Accordingly, CSPDCL is not claiming any incentive for the over achievement of losses from the targets specified for 33 kV and below network in the CSERC MYT Regulations 2015 viz-a-viz the recomputed targets for same network under UDAY. Further, CSPDCL requested the Commission not to levy any penalty for losses falling short of UDAY targets at the time of true-up of future years also for the 3<sup>rd</sup> MYT Control Period.

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

As regards EHV sales, the Commission sought details of number of consumers and EHV sales and open access sales for FY 2017-18 and FY 2018-19. CSPDCL submitted the requisite details for prudence check. The open access sales have submitted as nil.

Further, the Commission sought certification of CSLDC for the energy input submitted by CSPDCL. In response to this, CSPDCL submitted that, actual energy input at T<>D interface is based on joint meter readings. As per existing practice, these readings are obtained through MRI by CSPTCL and forwarded to CSPDCL on monthly basis to prepare the energy input at T<>D interface. Further, the matter of certification of energy input has been taken up with CSLDC on six (6) monthly basis. However, certification is yet to be issued by CSLDC. The Commission notes that,

CSPTCL in its Petition, has submitted the feeder-wise details of energy input and output. The same has been reconciled with details submitted by CSPDCL.

Further, as regards the certification of energy input, the Commission is of view that CSLDC shall certify the energy input/output and undertake energy accounting, as per the responsibilities specified in the Act and Regulations. CSPDCL is directed to submit the certification of energy input for FY 2017-18 and FY 2018-19 along with the next Tariff Petition. However, at this stage, the Commission has accepted the energy input as submitted by CSPDCL, after due prudence check with data submitted by CSPTCL.

Further, the Commission sought details of Circle-wise distribution losses (upto 33 kV level) for FY 2017-18 and FY 2018-19. CSPDCL submitted the details for FY 2018-19 only. From the details, it is observed that, some of the circles viz. Bilaspur (O&M), Korba (O&M), Janjgir-Champa, Ambikapur and Baikunthpur, are having Distribution losses more than 30%. Further, it is observed that overall distribution losses (19.27%) are not matched with total of circle wise distribution losses (18.89%). In response to this, CSPDCL clarified that the circle wise loss depends on energy input obtained from meters installed at inter circle boundaries. However, there are issues in energy accounting at circle level due to fact that not only there are some feeders which cater to multiple circles but sometimes there are readings that are based on assessment in case the corresponding meters are non-functional/defective. However, considering the vastness of 33 kV network in the state, the overall variation in losses is negligible keeping in view of the operational challenges.

The Commission has considered the energy balance based on the actual Inter-State as well as Intra-State Transmission losses, energy sales approved in this Order and quantum of power procured during FY 2017-18 and FY 2018-19.

The Commission has approved the energy balance as per the provisions of CSERC MYT Regulations, 2015 and methodology adopted in previous Tariff Orders. The approved energy loss and energy balance for FY 2017-18 and FY 2018-19 is shown in the Table below:

**Table 6-5: Approved Energy Balance and Distribution Loss for FY 2017-18 & FY 2018-19**

Sr. No	Particulars	FY 2017-18		FY 2018-19	
		Petition	Final True-up	Petition	Provisional True-up
A	Input: Total Energy available (MU)	24,424.96	24,424.96	26,589.25	26,589.25
	i. Available at 33 kV outgoing feeder	21,892.85	21,892.85	23,353.78	23,353.78
	ii. Injected by CPP/IPP at 33/11kV S/s,	217.79	217.79	149.76	149.76
	iii. Available a EHV Level	2532.11	2532.11	3235.48	3235.48
B	Output: Total Energy Sales (MU)	20,362.53	20,362.53	22,210.22	22,210.22
	i. LV Sales	11,494.54	11,494.54	11,907.93	11,907.93
	ii. HV Sales	6,335.87	6,335.87	7,066.81	7,066.81
	iii. EHV Sales	2532.11	2532.11	3235.48	3235.48
C	EnergyLoss below 33 kV (MU) $\{(A_i + A_{ii}) - (B_i + B_{ii})\}$	4280.22	4280.22	4528.79	4528.79
D	<b>Distribution Loss below 33 kV (%)</b> $\{C/(B_i+B_{ii})*100\}$	<b>19.36%</b>	<b>19.36%</b>	<b>19.27%</b>	<b>19.27%</b>
E	Distribution Loss Including EHV Sales (MU) $(A - B)$	<b>4280.22</b>	<b>4280.22</b>	<b>4528.79</b>	<b>4528.79</b>
F	<b>Distribution loss including EHV Sales</b> $(E/B*100)$	<b>17.37%</b>	<b>17.37%</b>	<b>16.94%</b>	<b>16.94%</b>

Regarding target of distribution losses as per UDAY Scheme, the Commission in Tariff Order for FY 2019-20, has already decided the issue. The relevant extract of Order is as under:

*“CSPDCL has submitted that the tripartite MoU signed between GoI, GoCG and CSPDCL should not be considered as an agreement and hence cannot supersede the Distribution Loss trajectory specified in MYT Regulations, 2015. In this regard, the Commission notes that the prevailing Loss trajectory specified in the MYT Regulations, 2015 (Regulation 71.3) was amended on June 16, 2017, providing for adoption of any subsequent trajectory agreed upon between CSPDCL on one hand and State and/or Central Government on the other. The Amendment is reproduced below:*

*“Provided that if the State utility enters into any agreement with Government of India and/or Chhattisgarh Government and energy loss trajectory committed in*

*this agreement is contrary to that as specified in this Regulations, the energy loss trajectory agreed under the agreement shall prevail over the energy loss specified in this Regulations.”*

*UDAY scheme is intended to turn-around the financial health of the Distribution companies, reeling under huge debt burden, which was ultimately passed to the consumers through tariff. The loss reduction trajectory, as envisaged in the Scheme was in fact agreed to by the parties after negotiations, and is an essential component towards achieving the objective of MoU. Further, it needs to be stressed here that there is no practice of executing agreements amongst governments and government agencies; instead, MoU is the general practice and in pursuance of the same, GoCG has fulfilled its commitment towards conversion of 50 % of CSPDCL's total debt (Rs. 870.12 cr.) into grants. One has to appreciate that the Regulations were amended to facilitate implementation of such schemes and reforms. Therefore, Commission is of the view that one has to go by the intent and spirit behind the tripartite Understanding and the amended Regulations and not get bogged down with the mere wordings. Accordingly, CSPDCL has to honour its commitment towards reduction in distribution loss to the agreed level. Thus, the Commission approves the Distribution Loss Target for FY 2016-17 and FY 2017-18, as per UDAY MoU.”*

In view of the above, the Commission approves the Distribution Loss Target for FY 2017-18 and FY 2018-19, as per UDAY MoU.

The energy Loss target, inclusive of EHV sales, stipulated under the UDAY scheme for FY 2017-18 and FY 2018-19 works out to 18.06% and 14.64%, respectively. The actual Distribution Loss including EHV sales achieved by CSPDCL during FY 2017-18 and FY 2018-19 computed by the Commission, based on actual energy sales and power purchase units works out to 17.37% and 16.94%, respectively. It is evident that CSPDCL has achieved lower energy loss for FY 2017-18 and exceeded target energy loss for FY 2018-19 as compared to the targets assigned under UDAY scheme.

The CSERC MYT Regulations, 2015 provide for gain/loss to be allowed at the time of True-up based on the difference between the actual and target energy losses. However, as discussed earlier, the Commission observes that there are still higher percentage of burnt/defective meters and no corrective measures have been taken by CSPDCL despite specific directives issued in last Tariff Order. Hence, the reasons given by the Commission in its earlier Order dated 12<sup>th</sup> June 2014 for not allowing gains on account of energy losses still hold true for FY 2017-18 and FY 2018-19. The

Commission therefore is of the view that no sharing of gains or losses shall be given to CSPDCL for overachievement or underachievement of Distribution Loss target for FY 2017-18 and FY 2018-19.

#### **6.4 Power Purchase Cost**

##### **CSPDCL's Submission**

CSPDCL has purchased the power from CSPGCL generating stations, Central Generating Stations (CGS) and other sources such as Captive Power Plants, Bio-mass units, CPPs/IPPs, Solar and other RE sources, CSPTrdCL and other short-term sources to meet the energy requirement during FY 2017-18 and FY 2018-19.

During FY 2017-18, CSPDCL has purchased 32,468.04 MU at average rate of Rs. 3.83/kWh, which amounts to the cost of Rs. 12,439.77 Cr.. It has also netted off sale of surplus power of 6,610.82 MU at average rate of Rs. 3.75/kWh, which amounts to revenue from sale of power of Rs. 2,480.91 Cr..

Similarly, CSPDCL has purchased 35,147.87 MU at the cost of Rs. 12,887.43 cr. and netted off sale of surplus power 7,031.43 MU at the cost of Rs. 2,475.01 cr. during FY 2018-19. The sale of surplus power also includes sales to Telangana, which is a back-to-back agreement between CSPDCL and Telangana DISCOM.

Further, CSPDCL utilised banked power of 443.70 MU during FY 2017-18 and 2,220.37 MU during the FY 2018-19. It has also returned 202.75 MU of banked power during FY 2017-18 and sold 1,182.01 MU of banked power during FY 2018-19 and the same has been claimed at no cost. Under the regulatory principles, banking of power involves a cashless transaction, where interchange of units has to be accomplished. This is in line with the Judgment of the Hon'ble APTEL dated July 1, 2014 in Appeal No.220 of 2013.

CSPDCL requested the Commission to approve power purchase expenses (including transmission charges) of Rs.12,439.77 cr. for FY 2017-18 and Rs. 10,412.43 cr. for the FY 2018-19.

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

The Commission has scrutinized the available material placed on record including the power purchase cost reflecting in final accounts of FY 2017-18 and provisional accounts for FY 2018-19, and the actual source-wise power purchase cost for FY 2017-18 and FY 2018-19 as submitted by CSPDCL in its petition.

CSPDCL has purchased power from CSPGCL Stations, CGS Stations, Renewable Sources, Short Term sources. CSPDCL clarified that there is no purchase of power during FY 2017-18 and FY 2018-19 from unapproved sources. All long term PPAs are already approved by the Commission and approval of purchase of short-term power is being taken from the Commission on annual basis.

The Commission notes that it has claimed gross power purchase cost of Rs. 12,887.43 Cr. for FY 2018-19, however the same has been reported as Rs. 13,337.18 Cr. in provisional accounts. Hence, there was a difference of Rs. 488.69 cr. in the power purchase expenses, which was not claimed in provisional true-up of FY 2018-19. In its justification, CSPDCL submitted that, the difference in cost is towards the cost of power banking charges. This amount is to be considered as nil as per regulatory principles.

#### CSPGCL Stations

The Commission has considered the power purchase quantum and cost of CSPGCL stations as submitted by CSPDCL in its Petition for FY 2017-18. The quantum of purchase from CSPGCL Thermal and Hydro Stations is 19,344.93 MU, which is marginally higher than the quantum of 19,342.10 MU approved by the Commission in provisional true-up of FY 2017-18. However, the cost of power purchase from CSPGCL stations has increased by Rs. 128.18 Cr.. The Commission queried on the increase in cost from CSPGCL station to which CSPGCL replied that since the accounts were provisional, the final amount was not available at that time. Only after reconciliation and audit the power purchase cost from CSPGCL stations is finalized. The Commission has taken cognizance in the matter and hence approved power purchase cost of Rs. 7,131.76 cr. from CSPGCL stations for FY 2017-18 as submitted by the Petitioner. Further, the Commission, for the purpose of final true-up of FY 2017-18, has matched the revenue earned by CSPGCL with the purchase cost of CSPDCL from CSPGCL stations.

Similarly, during FY 2018-19, the Commission has provisionally approved 19,775.45 MU at the cost of Rs. 6,892.81 cr. as submitted by CSPDCL. The cost of power purchase during FY 2018-19 is subject to change at the time of final True-up of FY 2018-19 based on audited accounts.

### Central Generating Stations (CGS)

The Commission has considered the power purchase quantum and cost of Central Generating Stations (CGS) submitted by CSPDCL. The quantum of purchase form CGS is 7,858.41 MU and corresponding cost is Rs. 2,262.26 cr., which is slightly higher than the quantum approved by the Commission in provisional true-up of FY 2017-18.

The Commission has also accepted the quantum and cost for FY 2018-19 as submitted by CSPDCL for CGS stations. The Commission therefore provisionally approves 8,854.87MU at the cost of Rs. 2,772.72 cr. for FY 2018-19.

### Renewable Sources

The Commission notes that CSPDCL has purchased the power from renewable sources during FY 2017-18 and FY 2018-19. The Commission sought the status of RPO compliance, which was submitted by CSPDCL as under:

**Table 6-6: Status of RPO compliance as submitted by CSPDCL**

Year	Type of Source	Total Consumption (MU)	RPO		Actual Purchase	
			(%)	MU	%	MU
FY 2017-18	Solar	20,310.70	2.00%	406.21	1.64%	332.78
	Non-Solar		7.00%	1421.75	4.92%	999.30
	Total		9.00%	1827.96	6.56%	1332.08
FY 2018-19	Solar	22,333.08	3.50%	781.66	2.25%	502.62
	Non-Solar		7.50%	1674.98	3.52%	786.72
	Total		11.00%	2456.64	5.77%	1289.34

From the above table, it has been observed that CSPDCL has not been able to fulfil RPO compliance for both years. CSPDCL further clarifies that it has not purchased any RECs during FY 2017-18 and FY 2018-19 and will comply at later stage.

The Commission has scrutinised the source wise details of RE purchase during FY 2017-18 and FY 2018-19. The quantum of energy procured from RE sources as submitted by CSPDCL is in line with the quantum approved at the time of provisional True-up of FY 2017-18. The Commission has considered the same quantum in the final True-up of FY 2017-18 and hence accepted the cost submitted by CSPDCL in its Petition.



In case of FY 2018-19, the quantum and cost from all renewable sources is considered same as that submitted by CSPDCL. The quantum and cost are subject to change based on the final True-up of FY 2018-19.

*Power Purchase from CSPTrdCL (Concessional Power)*

The Commission sought details of purchase from concessional sources including source wise quantum, actual entitlement, actual availability, etc. CSPDCL submitted the requisite details for FY 2017-18 and FY 2018-19. It is observed that CSPDCL has purchased 1,265.67 MU as against actual entitlement of 1665.79 MU during FY 2017-18 at average rate of Rs. 1.65/kWh. From the source-wise details, it is observed that, the power is procured at rate of Rs. 1.60/kWh. Also, the cost of Rs. 12.02 Cr. has been considered towards electricity duty paid and other adjustment. The Commission accepted the submission of CSPDCL and considered the cost of Rs. 208.51 Cr. towards purchase of Concessional Power

As regards purchase for FY 2018-19, the Commission has considered the purchase of 1,530.87 MU at average rate of Rs. 1.82/kWh, which amounts to cost of Rs. 278.48 Cr..

*Other Sources*

The Commission sought details of source-wise bilateral purchase for FY 2017-18 and FY 2018-19. CSPDCL submitted that bilateral power has been purchased through Competitive Bidding. CSPDCL also submitted the documentary evidences for the same.

During FY 2017-18, CPDCL has purchased 1,861.22 MU with cost of Rs. 568.71 Cr. at average rate of Rs. 3.06/kWh. This includes the purchase from Traders of 1,510.86 MU at average rate of Rs. 3.46/kWh, which amount to cost of Rs. 522.41 Cr.. The remaining purchase of 350.37 MU is from CPPs, amount to cost of Rs. 46.30 Cr. at average rate of Rs. 1.32/kWh. The Commission, after due prudence check, accepted the cost of purchase of Rs. 568.71 Cr. as submitted by CSPDCL.

As regards FY 2018-19, the Commission has considered the purchase of 845.31 MU at average rate of Rs. 3.06/kWh, which amount to cost of 259.47 Cr., as submitted by CSPDCL. The Commission directs CSPDCL to submit details of source wise purchase of this power, along with documentary evidences of Competitive Bidding, at time of final true-up for FY 2018-19.

### DSM Charges

The Commission sought details of UI Charges with break-up of import-export, which are submitted as under:

**Table 6-7: DSM Charges submitted by CSPDCL**

Particulars	FY 2017-18		FY 2018-19	
	MU	Rs. Cr.	MU	Rs. Cr.
DSM –Overdrawal	101.03	126.54	173.76	102.94
DSM- Underdrawal	(268.94)	(34.67)	(152.79)	(27.68)
Net DSM	(167.91)	91.87	20.97	75.26

After due prudence check, the Commission accepted the DSM Charges submitted by FY 2017-18 and FY 2018-19.

### Late Payment Charges

The Commission notes that, during FY 2017-18, CSPDCL has paid late payment surcharge of Rs. 130.21 Cr. to CSPGCL, Rs. 2.41 Cr. to Central Generating Stations and Rs. 14.44 Cr. to CSPTCL, which amount to total of Rs. 147.05 Cr..

Similarly, during FY 2018-19, CSPDCL has paid late payment surcharge of Rs. 192.02 Cr. to CSPGCL, Rs. 5.97 Cr. to Central Generating Stations and Rs. 57.59 Cr. to CSPTCL, which amount to total of Rs. 255.58 Cr..

The Commission has not considered any Late Payment Surcharge paid/received as an expense/revenue in ARR as per Regulation 28.1 of CSERC MYT Regulations, 2015. Accordingly, the Commission has disallowed the amount of Rs. 147.05 Cr. for FY 2017-18 and Rs. 255.58 Cr. for FY 2018-19 as stated above.

### Transmission Charges

The Commission has scrutinized the Transmission charges which includes Inter-State charges (PGCIL), Intra-State charges (CSPTCL), SLDC and other Transmission charges for FY 2017-18.

The Commission notes that CSPDCL has claimed Transmission Charges of Rs. 1195.43 Cr. as against Rs. 1192.29 Cr. approved in provisional true-up, which is marginally higher. It is note that the major difference is in Inter-State Transmission Charges.

As regards CSPTCL Charges, the revenue earned by CSPTCL has been matched with the Intra-State Transmission cost of CSPDCL. Further, CSPTCL in its Petition has submitted that it has not considered the refund of PGCIL Charges of Rs. 30.91 Cr. in FY 2017-18 and Rs. 45 Cr. in FY 2018-19. In this regard, CSPDCL submitted that, it has adjusted the same amount while considering the PGCIL Charges in the present Petition.

In view of the above, the Commission approves the Transmission Charges of Rs. 1,195.43 Cr. for FY 2017-18, after due prudence check.

As regards the difference in transmission charges of Rs. 1462.35 Cr. submitted for FY 2018-19 vis-à-vis charges of Rs. 1457.49 Cr. reported in provisional accounts, CSPDCL clarified that, transmission charges claimed in the Petition includes reactive charges and commission charges on banking of power of Rs. 0.165 Cr. and 4.69 Cr. respectively, in addition to the charges reported in provisional accounts. These charges are included in Power purchase in provisional accounts. The reconciliation is accepted for FY 2018-19. The Commission has accepted the Transmission charges submitted by CSPDCL for FY 2018-19, subject to change at the time of final true-up.

#### Sale of Power

In its Petition, CSPDCL has accounted the sale of surplus power in power purchase expenses. However, the Commission has continued with the methodology adopted in previous Orders by separate accounting of revenue from sale of surplus power and revenue from retail-sale of power. The revenue from surplus power considered by the Commission is shown in the following Table:

**Table 6-8: Revenue from Sale of Power as approved by the Commission**

Particulars	FY 2017-18		FY 2018-19	
	MU	Rs. Cr.	MU	Rs. Cr.
Sale of Surplus Power to Telangana	5,421.16	2,238.10	5,329.05	2,339.34
Sale of Surplus Power to Power Exchange	717.97	197.81	520.37	106.52
<b>Grand Total</b>	<b>6,139.13</b>	<b>2,435.91</b>	<b>5,849.42</b>	<b>2,445.86</b>

The source-wise power purchase quantum and cost considered by the Commission after final true-up for FY 2017-18 and provisional true-up of FY 2018-19 is shown in the Table below:

**Table 6-9: Approved Power Purchase Cost for FY 2017-18**

Source	Provisional True-up			Petition			Approved		
	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps./kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps./kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps./kWh)
<b>CGS</b>	<b>7,685.80</b>	<b>2,216.54</b>	<b>288</b>	<b>7,858.41</b>	<b>2,262.26</b>	<b>288</b>	<b>7,858.41</b>	<b>2,259.85</b>	<b>288</b>
NTPC sub-total	7,266.79	2,014.46	277	7,266.59	2,010.32	282	7,266.59	2,010.32	282
NTPC-SAIL (NSPCL)	176.09	87.28	496	176.09	87.28	496	176.09	87.28	496
NPCIL	226.40	70.37	311	226.40	70.34	311	226.40	70.34	311
Other Charges (NVVN, Hirakud, Subhansiri)	16.52	7.37	446	189.33	53.13	281	189.33	53.13	281
Other Charges	-	37.06	-	-	41.19	-	-	41.19	-
Less: Late Payment Charges*	-	-	-	-	-	-	-	2.41	-
<b>CSPGCL</b>	<b>19,342.10</b>	<b>7,003.58</b>	<b>362</b>	<b>19,344.93</b>	<b>7,131.76</b>	<b>369</b>	<b>19,344.93</b>	<b>7,001.55</b>	<b>362</b>
Total CSPGCL Thermal & Hydro	19,313.71	6,651.17	344	19,322.68	7,122.38	369	19,322.68	7,122.38	369
CSPGCL – Renewables	28.39	11.41	402	22.26	9.38	422	22.26	9.38	422
Other Charges	-	341	-	-	-	-	-	-	-
Less: Late Payment Charges*	-	-	-	-	-	-	-	130.21	-
<b>IEX/PXIL/Traders</b>	<b>218.18</b>	<b>72.38</b>	<b>332</b>	<b>218.18</b>	<b>81.93</b>	<b>376</b>	<b>218.18</b>	<b>81.93</b>	<b>376</b>
<b>CPPs/PPs/Short Term</b>	<b>1,860.96</b>	<b>481.58</b>	<b>259</b>	<b>1,861.22</b>	<b>568.71</b>	<b>306</b>	<b>1,861.22</b>	<b>568.71</b>	<b>306</b>
<b>Concessional Power - Through CSPTrdCL</b>	<b>1,265.67</b>	<b>207.17</b>	<b>164</b>	<b>1,265.67</b>	<b>208.51</b>	<b>165</b>	<b>1,265.67</b>	<b>208.51</b>	<b>165</b>
<b>Others - Renewables</b>	<b>1,357.16</b>	<b>824.80</b>	<b>608</b>	<b>1,357.16</b>	<b>852.15</b>	<b>628</b>	<b>1,357.16</b>	<b>852.15</b>	<b>628</b>
Biomass	897.91	558.36	622	897.91	585.04	652	897.91	585.04	652
Solar	348.34	223.70	642	348.34	224.37	644	348.34	224.37	644
Hydel/Other RE	110.91	42.74	385	110.91	42.74	385	110.91	42.74	385
<b>Other Sources</b>	<b>17.81</b>	<b>12.47</b>	<b>700</b>	<b>17.73</b>	<b>12.47</b>	<b>703</b>	<b>17.73</b>	<b>12.47</b>	<b>703</b>
<b>Transmission Charges</b>	<b>-</b>	<b>1,192.29</b>	<b>-</b>	<b>-</b>	<b>1,195.43</b>	<b>0</b>	<b>-</b>	<b>1,181.00</b>	<b>0</b>

Source	Provisional True-up			Petition			Approved		
	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps./kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps./kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps./kWh)
Interstate Transmission Charges	-	291.75	-	-	301.18	-	-	301.18	-
Intrastate Transmission Charges	-	807.53	-	-	821.99	-	-	821.99	-
CSLDC Charges	-	6.66	-	-	7.54	-	-	7.54	-
Other Transmission Charges	-	86.34	-	-	64.73	-	-	64.73	-
Less: Late Payment Charges*	-	-	-	-	-	-	-	14.44	-
<b>Net DSM Charges</b>	<b>101.03</b>	<b>76.22</b>	<b>754</b>	<b>101.03</b>	<b>126.54</b>	<b>798</b>	<b>(167.91)</b>	<b>91.87</b>	
<b>Banking Purchase</b>	<b>443.70</b>	<b>-</b>	<b>0</b>	<b>443.70</b>	<b>-</b>	<b>0</b>	<b>443.70</b>	<b>-</b>	<b>-</b>
<b>Gross Power Purchase Cost</b>	<b>32,292.41</b>	<b>12,087.02</b>	<b>374</b>	<b>32,468.04</b>	<b>12,439.77</b>	<b>383</b>	<b>32,199.10</b>	<b>12,258.05</b>	<b>385</b>
<b>Less: Adjustments</b>	<b>471.69</b>	<b>18.18</b>	<b>39</b>	<b>6,610.82</b>	<b>2,480.91</b>	<b>375</b>	<b>202.75</b>	<b>10.33</b>	
Rebate if any	-	-	-	-	0.77	-	-	0.77	-
GBI Claim received during the FY	-	-	-	-	9.56	-	-	9.56	-
Sale of Surplus Power***	-	-	-	5,421.16	2,238.10	413	-	-	-
Sale of Surplus power to Power Exchange***	-	-	-	717.97	197.81	276	-	-	-
Banking Sale	202.75	-	-	202.75	-	-	202.75	-	-
DSM Under-drawal**	268.94	18.18	-	268.94	34.67	-	-	-	-
<b>Net Power Purchase Cost</b>	<b>31,820.72</b>	<b>12,068.84</b>	<b>379</b>	<b>25,857.22</b>	<b>9,958.86</b>	<b>385</b>	<b>31,996.36</b>	<b>12,247.72</b>	<b>383</b>

*Note - \*Late Payment Charges submitted in Petition are included in total power purchase cost*

*\*\*DSM under-drawal approved by the Commission is included in Net DSM Charges.*

*\*\*\*Sale of surplus power approved by the Commission is included in Revenue in subsequent Section of this Order*

**Table 6-10: Approved Power Purchase Cost for FY 2018-19**

Source	Tariff Order			Petition			Approved		
	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps/kWh)
<b>CGS</b>	<b>12,133.56</b>	<b>3,783.45</b>	<b>312</b>	<b>8,854.87</b>	<b>2,772.72</b>	<b>313</b>	<b>8,854.87</b>	<b>2,766.75</b>	<b>312</b>
NTPC sub-total	11,517.69	3,581.04	311	7,967.98	2,465.87	309	7,967.98	2,465.87	309
NTPC-SAIL (NSPCL)	297.95	101.44	340	214.81	98.40	458	214.81	98.40	458
NPCIL	303.97	97.96	322	343.41	108.63	316	343.41	108.63	316
Other Charges (NVVN, Hirakud, Subhansiri)	-	-	-	328.67	99.81	304	328.67	99.81	304
Other Charges	13.95	3.01	216	-	-	-	-	-	-
Less: Late Payment Charges*								5.97	
<b>CSPGCL</b>	<b>20,971.47</b>	<b>6,993.66</b>	<b>333</b>	<b>19,775.45</b>	<b>6,892.81</b>	<b>349</b>	<b>19,775.45</b>	<b>6,700.79</b>	<b>349</b>
Total CSPGCL Thermal & Hydro	20,898.37	6,967.03	333	19,743.80	6,892.81	349	19,743.80	6,892.81	349
CSPGCL – Renewables	73.09	26.63	364	31.65	-	-	31.65	-	-
Less: Late Payment Charges*								192.02	
<b>IEX/PXIL/Traders</b>	<b>2,700.00</b>	<b>817.43</b>	<b>303</b>	<b>460.84</b>	<b>334.69</b>	<b>726</b>	<b>460.84</b>	<b>334.69</b>	<b>726</b>
<b>CPPs/IPP/Short Term</b>				<b>845.31</b>	<b>259.47</b>	<b>307</b>	<b>845.31</b>	<b>259.47</b>	<b>307</b>
<b>Concessional Power - Through CSPTrdCL</b>	<b>2,516.92</b>	<b>455.29</b>	<b>178</b>	<b>1,530.87</b>	<b>278.48</b>	<b>182</b>	<b>1,530.87</b>	<b>278.48</b>	<b>182</b>
<b>Others - Renewables</b>	<b>1,208.58</b>	<b>920.72</b>	<b>762</b>	<b>1,273.93</b>	<b>774.16</b>	<b>608</b>	<b>1,273.93</b>	<b>774.16</b>	<b>608</b>
Biomass	911.31	541.02	594	686.28	421.04	614	686.28	421.04	614
Solar	290.66	138.84	478	502.62	353.12	703	502.62	353.12	703
Hydel/Other RE	6.61	4.56	689	85.03	-	-	85.03	-	-
Solar RECs		66.57							
Non-Solar RECs		169.73							
<b>Transmission Charges</b>	<b>-</b>	<b>1,349.88</b>	<b>-</b>	<b>-</b>	<b>1,462.35</b>	<b>-</b>	<b>-</b>	<b>1,404.76</b>	<b>-</b>
Interstate Transmission Charges	-	341.63	-	-	398.67	-	-	398.67	-

Source	Tariff Order			Petition			Approved		
	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps/kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Ps/kWh)
Intrastate Transmission Charges	-	993.46	-	-	975.02	-	-	975.02	-
CSLDC Charges	-	14.79	-	-	14.03	-	-	14.03	-
Other Transmission Charges	-	-	-	-	74.63	-	-	74.63	-
Less: Late Payment Charges*								57.59	
<b>Net DSM Charges</b>	-	-	-	<b>186.22</b>	<b>112.77</b>	<b>606</b>	<b>20.96</b>	<b>75.26</b>	-
<b>Other Sources</b>	-	-	-	<b>12.47</b>	<b>9.83</b>	<b>788</b>	<b>12.47</b>	<b>9.83</b>	<b>788</b>
<b>Banking Purchase</b>	-	-	-	<b>2,220.37</b>	-	-	<b>2,220.37</b>	-	-
<b>Gross Power Purchase Cost</b>	<b>39,530.52</b>	<b>14,320.42</b>	<b>362</b>	<b>35,147.87</b>	<b>12,887.43</b>	<b>367</b>	<b>34,995.08</b>	<b>12,604.18</b>	<b>367</b>
<b>Less: Adjustments</b>	<b>13,165.88</b>	<b>4,740.85</b>	<b>360</b>	<b>7,031.43</b>	<b>2,475.01</b>	<b>352</b>	<b>1,182.01</b>	<b>1.47</b>	
Rebate if any	-	-	-	-	-	-	-	-	-
GBI Claim received during the FY	-	-	-	-	1.47	-	-	1.47	-
Sale of Surplus power in Telangana***	6,827.91	2,710.68	397	5,329.05	2,339.34	439	-	-	-
Sale of surplus power to Power Exchange***	6,337.97	2,030.17	320	520.37	106.52	205	-	-	-
Banking Sale	-	-	-	1,182.01	-	-	1,182.01	-	-
DSM Underdrawal**	-	-	-	152.79	27.68	181	-	-	-
<b>Net Power Purchase Cost</b>	<b>26,365.43</b>	<b>9,579.57</b>	<b>363</b>	<b>28,116.45</b>	<b>10,412.43</b>	<b>370</b>	<b>33,813.07</b>	<b>12,602.71</b>	<b>373</b>

*Note - \*Late Payment Charges submitted in Petition are included in total power purchase cost*

*\*\*DSM under-drawal approved by the Commission is included in Net DSM Charges.*

*\*\*\*Sale of surplus power approved by the Commission is included in Revenue in subsequent Section of this Order*

**The Commission approves Power Purchase Cost of Rs. 12,247.72 Cr. after final Truing-up of FY 2017-18 and Rs. 12,602.71 Cr. after provisional Truing-up of FY 2018-19.**

## 6.5 O&M Expenses

### CSPDCL's Submission

CSPDCL submitted the actual O&M expenses of Rs. 1,287.82 Cr. for FY 2017-18 as per audited accounts and Rs. 1430.14 Cr. for FY 2018-19 based on the provisional accounts, excluding terminal benefits (pension and gratuity) and wage revision. The O&M Expenses submitted by CSPDCL is shown in the following Table:

**Table 6-11: Actual O&M expenses as submitted by CSPDCL (Rs. Cr.)**

Sl. No.	Particulars	FY 2017-18	FY 2018-19
1	Employee Costs	935.30	887.03
2	A&G Expenses	160.09	321.27
3	R&M Expenses	192.43	221.84
<b>4</b>	<b>Total O&amp;M Expenses</b>	<b>1,287.82</b>	<b>1,430.14</b>

CSPDCL further clarified that A&G expenses for FY 2017-18 does not include amount of Rs. 96.60 Cr. as it is write-off of claim received from Government.

CSPDCL submitted that the major services involved in distribution business such as engagement of contract labour for operations of 33/11 kV Substations, meter reading, bill distribution and revenue collection, secretarial assistance in offices, housekeeping and security guards are performed through outsourcing and are booked under the head of A&G and R&M Expenses. This is because a substantial strength of sanctioned posts under Class III and IV are vacant. If they had been performed through regular appointments, all such expenditures qualify good under employee expenses. It is in the interest of consumers that these parts of distribution business are performed by CSPDCL at a marginal low cost. The details of such expenses incurred are given in Table below:

**Table 6-12: Details of contract services as submitted by CSPDCL (Rs. Cr.)**

Sl. No.	Particulars	FY 2017-18		FY 2018-19	
		A&G Exp.	R&M Exp.	A&G Exp.	R&M Exp.
1	Security services	1.27	-	1.73	-
2	Meter reading and other manpower service contracts	67.11	-	99.11	-
3	33/11 kV operations & Other manpower service contracts	-	55.58	-	90.14
<b>4</b>	<b>Grand Total</b>	<b>68.38</b>	<b>55.58</b>	<b>100.84</b>	<b>90.14</b>



CSPDCL requested to consider the expenditure indicated in the table as employee expenses and further not to be given consideration under controllable expenditure.

For computation of sharing of gains/(losses), CSPDCL has not considered any gain and loss on account of employee costs in line with the first amendment to the CSERC MYT Regulations, 2015.

CSPDCL has restated the normative R&M and A&G Expenses by excluding historical cost of these services for FY 2017-18. Further, CSPDCL has claimed losses over normative expenses after reducing uncontrollable expenses of meter reading, other merchandising & service contracts, and electricity charges to offices & establishments from the actual A&G expenses.

CSPDCL submitted the sharing of loss of Rs. 13.56 Cr. for FY 2017-18 as per CSERC MYT Regulations, 2015.

CSPDCL has not considered any gain and loss on account of O&M expenses for FY 2018-19 as the accounts for the year are provisional and not yet finalised.

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

The Commission notes that it had approved O&M expenses of Rs. 1,169.13 Cr. for FY 2017-18 at time of provisional true-up. In the present Petition, CSPDCL has claimed O&M Expenses of Rs. 1,287.82 Cr. for FY 2017-18 based on audited accounts.

As regards FY 2018-19, the Commission had approved O&M expenses of Rs. 1255.08 Cr. in Tariff Order dated March 26, 2018. As against this, CSPDCL has claimed O&M Expenses of Rs. 1430.14 Cr. for FY 2018-19 based on provisional accounts.

#### **Actual O&M Expenses**

CSPDCL has claimed actual O&M Expenses for FY 2017-18 based on audited accounts. The Commission notes CSPDCL has claimed Rs. 160.09 Cr. for A&G Expenses as against Rs. 162.85 Cr. considered in provisional True-up. The difference is observed for meter reading & other merchandising and service contracts and expenses under this head has increased from Rs. 52.82 Cr. to Rs. 67.11 Cr.. However, expenses under A&G Expenses for CSPHCL has reduced to 12.43 Cr. as against Rs. 24.71 Cr. claimed in Provisional True-up.

Further, CSPDCL has claimed actual R&M Expenses of Rs. 192.43 Cr. for FY 2017-18 as against Rs. 209.66 Cr. claimed in provisional true-up. The reduction is majorly on account of consideration of capitalisation of expenses of Rs. 11.10 Cr..

As regards details of interim relief/wage revision, CSPDCL submitted the amount as negative value of Rs. 85.75 Cr. for FY 2017-18 and negative value of Rs. 3.42 Cr. for FY 2018-19. As regards the clarification for consideration of negative impact of interim relief/wage revision, CSPDCL submitted that the payment of wage revision of CSPDCL was made in the month of August / September and the accordingly there was restructuring of salary component. Some of the components such as Basic Pay, House Rent Allowance showed a steep rise due to restructuring, whereas other component like DA, additional pay, interim relief shows a negative balance due to restructuring and merger of the same in basic salary. As the arrears were calculated after taking into consideration, the impact of various components already paid during the transition period i.e. from the date of wage revision due till the actual date of payment of wage revision. The interim relief already paid were re-calculated as this component was merged with basic salary, hence this component is showing negative balance in the FY 2017-18. Further, some of the employees have opted for new pay scale during FY 2018-19 as option was given to them in the wage revision, therefore there is some negative balance in this head in FY 2018-19 also. The justification provided by CSPDCL is accepted for the purpose of consideration of actual employee costs.

The Commission notes that A&G Expenses includes the amount of Rs. 1.54 Cr. towards provision for shortage in inventory. As per principle adopted in earlier Orders, the Commission has not approved provision of expenses. Further, for FY 2018-19, the Commission has accepted the O&M Expenses based on provisional accounts. Accordingly, the actual O&M Expenses considered by the Commission for sharing of gains and losses are given in the following Table:

**Table 6-13: Actual O&M expenses as considered by the Commission (Rs. Cr.)**

Sl. No.	Particulars	FY 2017-18	FY 2018-19
1	Employee Costs	935.31	887.04
2	A&G Expenses	158.54	221.82
3	R&M Expenses	192.45	321.27
<b>4</b>	<b>Total O&amp;M Expenses</b>	<b>1,286.30</b>	<b>1,430.13</b>

## Normative O&M Expenses

Regulation 57.4 of the CSERC MYT Regulations, 2015 specifies as under:

“

- (a) *Operation and Maintenance (O&M) Expenses for the distribution licensee shall include:*
- I. *Employee Cost;*
  - II. *Administrative and general Expenses*
  - III. *Repairs and Maintenance Expenses*
- (b) *The Commission shall stipulate a separate trajectory for each of the components of O&M expenses viz. employee cost, R&M expense and A&G expense for the control period.*
- (c) *The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2015-16 shall be derived on the basis of the normalized average of the actual employee expenses, excluding pension fund contribution and impact of pay revision arrears, available in the accounts for the previous five years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any other expense of non-recurring nature shall also be excluded while determining normalized average for the previous five years.*
- (d) *The normalization shall be done by applying last five years average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expenses (excluding impact of pension fund contribution and pay revision, if any) for each year of the control period.*

***At the time of true-up the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period.***

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

Further, Regulation 57.4 (e) and (f) of CSERC MYT Regulations, 2015 regarding A&G Expenses and R&M Expenses specify as under:

*“(e) The administrative and general expenses and repair and maintenance expenses, for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual administrative and general expenses and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.*

*(f) The normalization shall be done by applying last five-year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the control period.*

***At the time of true up, the administrative and general expenses and repair and maintenance expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period.”***

Based on the above Regulations, the Commission has considered A&G and R&M expenses for FY 2017-18 and FY 2018-19.

The Commission notes that CSPDCL has requested to treat expenses towards contract services, viz., operations of 33/11 kV Substations, meter reading, bill distribution and revenue collection, secretarial assistance in offices, housekeeping and security guards as uncontrollable. The Commission does not accept the contention of CSPDCL that, if they had been employed on regular basis, the cost of the same will be booked under Employee cost, which would have been allowed on actual basis. Under the ambit of performance-based Regulations, O&M expenses are considered as controllable factors. However, considering the special circumstances, this Commission has allowed Employee cost to be considered as uncontrollable factor. This does not mean that the expenses to be incurred under contract services is to be transferred to Employee costs. This will not suffice the purpose of performance-based Regulations. The Commission is of view that, R&M and A&G Expenses are considered as controllable factor and efficiency is expected in operations as well as services. The Commission notes that the Petitioner is aware about the norms of O&M Expenses and the same shall be considered while entering operation and service contracts. In view of the above, the Commission has not considered the prayer of the CSPDCL for consideration of expenses for contract services as uncontrollable factor.

The Commission has considered escalation factor of 3.08% for employee expenses and 2.92% for R&M expenses and A&G Expenses for FY 2017-18 based on CPI and WPI Index. Similarly, the Commission has considered escalation factor of 5.45% for employee expenses and 4.32% for R&M expenses and A&G Expenses for FY 2018-19.

The normative O&M expenses approved for FY 2017-18 and FY 2018-19 are shown in the table below:

**Table 6-14: Approved Normative R&M and A&G Expenses FY 2017-18 and FY 2018-19**

(Rs. cr.)

Sr. No.	Particulars	FY 2017-18	FY 2018-19
1	Employee Cost	726.19	765.77
2	A&G Expenses	132.90	138.58
3	R&M Expenses	123.51	128.80
4	<b>Total O&amp;M Expenses</b>	<b>982.60</b>	<b>1,033.15</b>

**The Commission approves normative O&M expenses of Rs. 982.60 Cr. after final true-up of FY 2017-18 and Rs. 1,033.15 Cr. after provisional true-up of FY 2018-19.**

The Commission notified CSERC MYT Regulations, 2016 (First amendment) on June 16, 2017 and made it effective from April 1, 2017, whereby employee expenses are excluded from accounting of sharing of gains/(losses). The relevant Regulation is as under.

*“In clause 13.1 of the principal regulations, the following proviso shall be inserted, namely: -*

*Provided further that the employee cost shall not be factored in for sharing of gains or losses on account of Operation and Maintenance expenses”*

In line with above amendment, the employee expenses are now considered as uncontrollable expenses and therefore the amount claimed by CSPDCL has been approved for final true-up of FY 2017-18 and provisional true-up of FY 2018-19, after due prudence check.

**The Commission therefore approves employee cost of Rs. 935.31 Cr. for FY 2017-18 and Rs. 887.04 Cr. for FY 2018-19. The employee cost approved for FY 2018-19 is subject to change based on audited accounts at the time of final True-up.**

As per the provisions in the Regulation for sharing of gains/(losses) of O&M expenses, the Commission has computed the efficiency gains/losses on the basis of revised normative A&G expenses and R&M expenses, in accordance with the CSERC MYT Regulations, 2015.

It is important to note that all the expenses booked under O&M expenses, except Employee Expenses, are ‘Controllable factors’ as per Clause 11.2 of the CSERC MYT Regulations, 2015 read with first amendment. No exceptions are permitted under the controllable factors. Hence, the sharing of A&G expenses and R&M

expenses is done based on actual expenses for FY 2017-18 as per the audited accounts and actual expenses for FY 2018-19 as per provisional accounts.

The Commission has undertaken the sharing of efficiency gains or losses for R&M expenses and A&G Expenses for FY 2017-18 as shown in the following Tables:

**Table 6-15: Sharing of (Gain)/Loss for FY 2017-18 (Rs. Cr.)**

Particulars	Revised Normative	Actual Expenses	Efficiency (Gain)/Loss	Entitlement of (Gain)/Loss	
				CSPDCL	Consumers
A&G Expenses	132.90	158.54	25.65	12.82	12.82
R&M Expenses	123.51	192.45	68.94	34.47	34.47
<b>Total</b>	<b>256.41</b>	<b>350.99</b>	<b>94.59</b>	<b>47.29</b>	<b>47.29</b>

Further, the sharing of efficiency gains and losses on account of O&M Expenses for FY 2018-19 is undertaken as shown in the following Table:

**Table 6-16: Sharing of (Gain)/Loss for FY 2018-19 (Rs. Cr.)**

Particulars	Revised Normative	Actual Expenses	Efficiency (Gain)/Loss	Entitlement of (Gain)/Loss	
				CSPDCL	Consumers
A&G Expenses	138.58	221.82	83.23	41.62	41.62
R&M Expenses	128.80	321.27	192.48	96.24	96.24
<b>Total</b>	<b>267.38</b>	<b>543.09</b>	<b>275.21</b>	<b>137.86</b>	<b>137.86</b>

**The Commission approves the sharing of efficiency loss of Rs. 47.29 Cr. for FY 2017-18 and Rs. 137.86 Cr. for FY 2018-19.**

The Commission notes that even with the mechanism of sharing of the resultant efficiency loss by CSPDCL, half of the losses is still borne by the consumers. Therefore, CSPDCL is directed to manage its R&M and A&G expenses within the normative ceiling.

## **6.6 Contribution to Pension and Gratuity**

### **CSPDCL's submission**

CSPDCL submitted the contribution to Pension and Gratuity of Rs. 325.83 Cr. for FY 2017-18 and Rs. 355.31 Cr. for FY 2018-19 as approved in MYT Order.

## Commission's View

The Commission approves the actual contribution to Pension and Gratuity as Rs. 325.83 Cr. for FY 2017-18 after final true-up and Rs 355.31 Cr. for FY 2018-19 after provisional true-up.

## 6.7 Capital Structure

### CSPDCL's submission

CSPDCL has determined the capital structure for FY 2017-18 and FY 2018-19 based on the following submissions:

- (a) Opening values of various parameters for FY 2017-18 have been considered equal to the closing values of FY 2016-17.
- (b) The actual loan addition has been considered as Rs. 485.84 cr. for FY 2017-18 based on audited accounts and Rs. 263.24 cr. for FY 2018-19 based on provisional accounts.
- (c) No grant has been received towards repayment of loan under UDAY scheme in FY 2017-18. However, consumer contribution has been considered as Rs. 894.47 cr. for FY 2017-18 based on audited accounts and Rs. 441.14 cr. for FY 2018-19 based on provisional accounts.
- (d) Normative equity addition has been considered based on capital restructuring methodology as approved by the Commission in tariff Order dated July 12, 2013.
- (e) GFA addition of has been considered as Rs. 852.42 cr. for FY 2017-18 and Rs. 996.64 cr. for FY 2018-19.

CSPDCL submitted the Capital Structure for FY 2017-18 and FY 2018-19 as under:

**Table 6-17: Capital Structure for FY 2017-18 and FY 2018-19 as submitted by CSPDCL**  
(Rs. cr.)

Particulars	Legend	FY 2017-18	FY 2018-19
<b>Gross Fixed Assets (GFA)</b>			
Opening GFA	A	5785.83	5,786.16
Opening CWIP	B	1667.35	6638.25
Opening CAPEX	C=A+B	7453.18	2761.65
Capitalization during the year	D	852.42	9399.90
Closing GFA	E=D+A	6638.25	996.64
Closing CWIP	F	2761.65	7634.89
Closing CAPEX	G=F+E	9399.90	3362.87

Particulars	Legend	FY 2017-18	FY 2018-19
<b>Grants and Consumer Contribution</b>			
Opening Grant and Contribution	H	3917.71	4812.18
Consumer contribution/grants during the year	I	894.47	441.14
Closing Consumer Contribution	J=H+I	4812.18	5253.31
Consumer Contribution in Opening GFA	K=H*A/C	3041.28	3398.38
Consumer Contribution in Closing GFA	L=J*E/G	3398.38	3646.97
<b>Loan Borrowed</b>			
Opening Borrowed Loan	M	1597.03	2082.86
Loan Borrowed during the year	N	485.84	263.24
Closing Borrowed Loan	O=M+N	2082.86	2346.11
Borrowed Loan in Opening GFA	P=M*A/C	1239.76	1470.93
Borrowed Loan in Closing GFA	Q=MAX (O*E/G, P)	1470.93	1628.72
<b>Equity</b>			
Opening Gross Equity	R=C-H-M	1938.44	2504.86
Equity Addition During the Year	T=S-R	566.42	893.48
Closing Gross Equity	S=G-J-O	2504.86	3398.34
Gross Equity in Opening GFA	U=A-K-P	1504.79	1768.94
Gross Equity in Closing GFA	V=C-L-Q	1768.94	2359.20
Average Gross Equity During the year	W=Avg. (U, V)	1636.87	2064.07
<b>Funding of Capitalized Assets</b>			
Total Capitalization		852.42	996.64
Contribution of Grant in Capitalized Assets		357.10	248.59
Contribution of Loan in Capitalized Assets		231.17	157.79
Contribution of Equity in Capitalized Assets		264.15	590.26

### Commission's View

The approved closing balance of FY 2016-17 after final True-up has been considered as the opening balance of FY 2017-18 for Gross Fixed Assets (GFA), Work in Progress (WIP), Capital Expenditure, Grants/Consumer Contribution, Loan and Equity.

The Commission observes significant variation in the amount of addition to normative loan and equity during the year claimed in the final true-up for FY 2017-18 with respect to amounts claimed in provisional true-up. In response to this, CSPDCL submitted that, in the previous petitions, it has requested for various corrections in capital structure and accordingly addition/deletion in loan was consequential to old capital structure. However, from this year onwards, CSPDCL has adopted the capital structure as approved by the Commission in last tariff order resulting into the changes in the claim for loan addition and deletion. It is also submitted that actual grant addition is Rs 894.47 Cr. as against the submission of 971.78 Cr. in provisional true-up petition.



The addition to GFA, Grant/Consumer Contribution has been considered for FY 2017-18 and FY 2018-19 is based on audited accounts and provisional accounts respectively. The consumer contribution and grants have been reduced from the GFA addition, before considering the normative debt: equity ratio, which has been consistently done for all the years.

Gross Fixed assets and its funding considered by the Commission for FY 2017-18 and FY 2018-19 are shown in the following Table:

**Table 6-18: Approved Gross Fixed Assets for FY 2017-18 and FY 2018-19 (Rs. cr.)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2017-18</b>	<b>FY 2018-19</b>
	<b>Gross Fixed Assets (GFA)</b>		
1	Opening GFA	5,785.83	6,638.25
2	Capitalization during the year	852.42	996.64
3	Closing GFA	6,638.25	7,634.89
	<b>Funding of Capitalized Assets</b>		
4	Grant	357.10	248.59
5	Equity	148.60	224.42
6	Debt	346.73	523.64
<b>7</b>	<b>Total Capitalization</b>	<b>852.42</b>	<b>996.64</b>

**The Commission approves the total capitalization of Rs. 852.42 Cr. for FY 2017-18 and Rs. 996.64 Cr. for FY 2018-19 as shown in the Table above.**

## **6.8 Depreciation**

### **CSPDCL's Submission**

CSPDCL submitted that depreciation has been calculated as per Regulation 24 of CSERC MYT Regulations 2015, along with the appropriate treatment of grant received under UDAY scheme. CSPDCL, while calculating depreciation for the FY 2017-18 and FY 2018-19, has followed the methodology specified in the aforesaid Regulations and the methodology adopted by the Commission in previous Tariff Orders.

CSPDCL has claimed depreciation of Rs. 130.25Cr. for FY 2017-18 and Rs. 163.01Cr. for FY 2018-19.

### Commission's View

For the purpose of final true-up for FY 2017-18 and provisional true-up for FY 2018-19, the Commission has computed the depreciation as per Regulation 24 of the CSERC MYT Regulations, 2015.

During the provisional True-up for FY 2017-18, the Commission notes that the steep increase in depreciation claimed for FY 2017-18 as compared to depreciation claimed in FY 2016-17 is because of the fact that deduction of depreciation on assets converted from loan to grant in UDAY has been inadvertently missed in petition by CSPDCL. However, the same has been corrected in provisional true-up and adopted in final true-up as well.

The Regulations specifies depreciation rates for each asset groups. Accordingly, the weighted average depreciation rates have been computed as 5.32% and 5.31% for FY 2017-18 and FY 2018-19 respectively.

The Commission sought computation of depreciation on fully depreciated assets from CSPDCL. CSPDCL submitted the depreciation on fully depreciated assets as Rs. 16.54 Cr. for FY 2017-18 and Rs. 16.51 Cr. for FY 2018-19. Further, the Commission observes that depreciation on fully depreciated assets has reduced in FY 2018-19. At this stage, the Commission accepted the same for the purpose of provisional true-up, however, rationale and justification for the same shall be submitted at time of final true-up for FY 2018-19. The depreciation on fully depreciated assets has been deducted in accordance with the approach adopted in the previous orders.

Also, the depreciation on consumer contribution in live assets has been deducted as per Regulation 24 of the CSERC MYT Regulations, 2015. Similarly, depreciation on assets converted from loan to grant under UDAY has been deducted.

The depreciation approved for FY 2017-18 after final True-up is shown in the Table below:

**Table 6-19: Approved Depreciation for FY 2017-18 (Rs. cr.)**

Particulars	FY 2017-18		
	Prov. True-up	Petition	Approved
Opening GFA	5,785.83	5785.83	5785.83
Additional Capitalisation during the Year	850.90	852.42	852.42
Closing GFA	6636.73	6638.25	6638.25

Particulars	FY 2017-18		
	Prov. True-up	Petition	Approved
Average GFA for the year	6211.28	6212.04	6212.04
Depreciation Rates (%)	5.32%	5.32%	5.32%
Gross Depreciation	330.40	330.44	330.44
<i>Less:</i> Depreciation on consumer contribution on live assets	139.84	137.36	137.36
<i>Less:</i> Depreciation on Fully Depreciated Assets	16.54	16.54	16.54
<i>Less:</i> Depreciation on assets converted from loan to grant under UDAY	46.28	46.29	46.29
<b>Net Depreciation</b>	<b>127.73</b>	<b>130.25</b>	<b>130.25</b>

Similarly, depreciation approved for FY 2017-18 after provisional true-up is shown in the following Table:

**Table 6-20: Approved Depreciation for 2018-19 (Rs. cr.)**

Particulars	FY 2018-19		
	MYT Order	CSPDCL	Approved
Opening GFA	9174.21	6638.25	6638.25
Additional Capitalisation during the Year	1289.90	996.64	996.64
Closing GFA	10464.11	7634.89	7634.89
Average GFA for the year	9819.16	7136.57	7136.57
Depreciation Rates (%)	4.95%	5.31%	5.31%
Gross Depreciation	485.97	378.91	378.91
<i>Less:</i> Depreciation on consumer contribution on live assets	279.09	153.18	153.18
<i>Less:</i> Depreciation on Fully Depreciated Assets	16.94	16.51	16.51
<i>Less:</i> Depreciation on assets converted from loan to grant under UDAY	136.22	46.20	46.20
<b>Net Depreciation</b>	<b>53.72</b>	<b>163.01</b>	<b>163.01</b>

**The Commission approves the total depreciation of Rs. 130.25 cr. for FY 2017-18 and Rs. 163.01cr. for FY 2018-19 as shown in the Table above.**

## 6.9 Interest on Loan Capital

### CSPDCL's Submission

CSPDCL submitted that the Interest on loan capital has been computed in accordance with Regulation 23 of the CSERC MYT Regulations, 2015. The allowable depreciation for the year has been considered as the normative repayment for the year. The actual weighted average interest rate of has been considered as 9.75% for FY 2017-18 and 10.28% for FY 2018-19 based on actual loan portfolio during the respective year.

CSPDCL claimed the interest on loan capital of Rs. 75.47Cr. for FY 2017-18 and Rs. 110.69Cr. for FY 2018-19.

### Commission's View

The closing Net normative loan for FY 2016-17 approved in final True-up has been considered as opening net normative opening loan for FY 2017-18. Based on the approve capitalisation for FY 2017-18 and FY 2018-19 loan addition during the year has been considered for deriving the debt portion. The allowable depreciation for the year has been considered as normative repayment for the year.

The Commission sought the documentary evidences for the opening loan balance for FY 2017-18 and FY 2018-19, applicable interest rate for each source of loan and the computation of weighted average rate of interest for FY 2017-18 and FY 2018-19. The actual weighted average interest rate has been worked out based on the interest expenses paid during FY 2017-18 and FY 2018-19 against the outstanding debt for the year.

The interest expense approved for FY 2017-18 after final true-up is shown in the following Table:

**Table 6-21: Approved Interest Expense for FY 2017-18 (Rs. cr.)**

Particulars	FY 2017-18		
	Prov. True-up	Petition	Approved
Opening Net Normative Loan	629.21	629.21	629.21
Repayment during the year	127.73	130.25	130.25
Additional Capitalization of Borrowed Loan during the year	294.54	231.17	231.17
Addition/(Reduction) in Normative loan during the year	-91.30	115.56	115.56
Closing Net Normative Loan	704.72	845.69	845.69

Particulars	FY 2017-18		
	Prov. True-up	Petition	Approved
Average Normative loan during the year	666.97	737.45	737.45
Weighted Average Rate of Interest	9.76%	9.75%	9.75%
<b>Interest Expense</b>	<b>65.10</b>	<b>71.94</b>	<b>71.94</b>

Similarly, the interest expense approved for FY 2018-19 after provisional true-up is shown in the following Table:

**Table 6-22: Approved Interest Expense for FY 2018-19 (Rs. cr.)**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Opening Net Normative Loan	2094.00	845.69	845.69
Repayment during the year	189.94	163.01	163.01
Additional Capitalization of Borrowed Loan during the year	-	157.79	157.79
Addition/(Reduction) in Normative loan during the year	262.35	365.84	365.84
Closing Net Normative Loan	2166.41	1206.31	1206.31
Average Normative loan during the year	2130.21	1026.00	1026.00
Weighted Average Rate of Interest	8.24%	10.28%	10.28%
<b>Interest Expense</b>	<b>175.49</b>	<b>105.43</b>	<b>105.43</b>
Add: Other Finance Charges	-	5.27	<b>5.27</b>
<b>Total Interest on Loan</b>	<b>175.49</b>	<b>110.69</b>	<b>110.69</b>

**The Commission approves the Interest on Loan of Rs. 71.94 cr. for FY 2017-18 and Rs. 110.69 cr. for FY 2018-19 as shown in the Table above.**

## **6.10 Interest on Consumer Security Deposit**

### **CSPDCL's Submission**

CSPDCL has considered the Interest on Consumer Security Deposit (CSD) paid to the consumers in line with the Regulation 6.13 of the Chhattisgarh Electricity Supply Code, 2011. Accordingly, the actual interest on CSD paid by CSPDCL is Rs. 101.97Cr. during FY 2017-18 as per audited accounts and Rs. 125.76Cr. during FY 2018-19 as per provisional accounts.

### Commission's View

The Commission sought details of actual interest on CSD paid to consumers/adjusted in consumer's bills and variation with the interest on CSD booked as per audited/provisional accounts. CSPDCL submitted that, as per audited accounts of FY 2017-18, interest booked on CSD is Rs. 101.97 cr. and the same is not paid in case, however /adjusted in consumer's bill. Further, total interest includes the interest of Rs. 64.51 Cr. paid to HV consumers and Rs. 37.45 Cr. paid to LV consumers during FY 2017-18.

The closing security deposit amount approved in True-up of FY 2016-17 has been considered as the opening balance of consumer security deposit for FY 2017-18.

Further, the Commission observes that the closing amount of Security Deposit as per audited accounts of FY 2017-18 is Rs 1846.62 cr., however the opening amount of Security Deposits as per provisional accounts of FY 2018-19 is Rs 1926.67 cr.. In response to this, CSPDCL clarified that the audited accounts of FY 2017-18 reported Rs. 1,846.62 Cr. (Note 17 of Other Financial Liabilities) as closing balance of security deposit from consumers. However, due to wrong consideration of some of the entries in trial balance as 'security deposit', opening balance of FY 2018-19 is inflated by Rs 79.85 Cr.. In view of the above, the Commission has considered the closing balance of Rs 1,846.82 Cr. for FY 2017-18 as opening balance of FY 2018-19.

The Commission approves interest on consumer security deposit of Rs. 101.97 cr. for FY 2017-18 as per audited accounts and Rs. 125.76 cr. for FY 2018-19 as per provisional accounts.

**Table 6-23: Approved Interest on CSD for FY 2017-18 and FY 2018-19 (Rs. cr.)**

Particulars	FY 2017-18			FY 2018-19		
	Prov. True-up	Petition	Approved	MYT Order	Petition	Approved
Opening CSD	1,606.81	1,606.81	1,606.81	1,558.95	1,926.67	1,846.82
Addition	319.86	319.86	240.01	155.89	234.87	314.73
Closing CSD	1,926.67	1,926.67	1,846.82	1,714.84	2,161.54	2,161.54
Rate	5.96%	6.35%	5.90%	9.00%	6.53%	6.27%
<b>Interest on CSD</b>	<b>105.28</b>	<b>101.97</b>	<b>101.97</b>	<b>140.31</b>	<b>125.76</b>	<b>125.76</b>

## 6.11 Interest on Working Capital

### CSPDCL's Submission

CSPDCL submitted that Interest on Working Capital (IoWC) has been computed as per Regulation 25 of the CSERC MYT Regulations, 2015. For computation of working capital requirement, CSPDCL has considered one month of the approved O&M expenses, maintenance spares @ 40% of Repair and Maintenance expenses and one month of receivables equal to one month of expected revenue from sale of power. CSPDCL has considered the interest rate of 12.60% for FY 2017-18 and 12.20% for computing the IoWC for FY 2018-19.

CSPDCL submitted the normative IoWC as Rs. (87.49) cr. for FY 2017-18 and Rs. (105.31) cr. for FY 2018-19.

### Commission's View

The normative IoWC has been computed in accordance with the CSERC MYT Regulations, 2015. The Commission has considered the revised normative O&M expenses for computing the working capital requirement. The receivables have been considered equivalent to one month's actual revenue. The average consumer security deposit has been considered as Rs. 1766.74 cr. and Rs. 2044.11 cr. for FY 2017-18 and FY 2018-19 respectively. Since, the Consumer Security Deposit is more than normative working capital requirement, the actual IoWC requirement for FY 2017-18 and FY 2018-19 works out as negative and is as shown in the Table below:

**Table 6-24: Approved IoWC for FY 2017-18 and FY 2018-19 (Rs. cr.)**

Particulars	FY 2017-18			FY 2018-19		
	Prov. True-up	Petition	Approved	MYT Order	Petition	Approved
Operation and Maintenance Expenses for one month	97.43	74.94	81.88	104.59	78.85	86.10
Maintenance spares @ 40% of Repair and Maintenance expenses	49.41	46.06	49.40	57.43	48.03	51.52
Receivable equal to 1 month of expected revenue from sale of power	907.94	951.39	951.39	1121.84	1053.99	847.67

Particulars	FY 2017-18			FY 2018-19		
	Prov. True-up	Petition	Approved	MYT Order	Petition	Approved
<b>Total Working Capital</b>	<b>1,054.77</b>	<b>1,072.39</b>	<b>1,082.68</b>	<b>1283.85</b>	<b>1180.87</b>	<b>985.28</b>
Less: Security Deposit	1,766.74	1,766.74	1,726.81	1636.89	2044.11	2,004.18
Net Working Capital Requirement	(711.97)	(694.35)	(644.31)	0.00	(863.24)	(1018.90)
Rate of Interest (%)	12.60%	12.60%	12.60%	13.20%	12.20%	12.20%
<b>Interest on Working Capital requirement</b>	<b>(89.71)</b>	<b>(87.49)</b>	<b>(81.16)</b>	<b>0.00</b>	<b>(105.31)</b>	<b>(124.31)</b>

**The Commission approves the Interest on Working Capital of Rs. (81.16) cr. for FY 2017-18 and Rs. (124.31) cr. for FY 2018-19 as shown in the Table above.**

## 6.12 Return on Equity

### CSPDCL's Submission

CSPDCL has computed permissible equity as per the capital structure proposed by CSPDCL and as per Regulation 17.1 of the CSERC MYT Regulations, 2015. CSPDCL has excluded consumer contribution, deposit work and grant obtained from the asset addition during the year for computation of normative debt: equity. CSPDCL has considered rate of Return on Equity as 16% for FY 2017-18 and FY 2018-19. CSPDCL has claimed Return on Equity of Rs. 216.24Cr. for FY 2017-18 and Rs. 246.08cr. for FY 2018-19.

### Commission's View

The Return on equity capital has been computed in accordance with Regulation 17 of the CSERC MYT Regulations, 2015.

The Commission has considered the closing permissible equity approved for FY 2016-17, as the opening permissible equity for FY 2017-18 and closing permissible equity of FY 2017-18 as the opening permissible equity of FY 2018-19. The equity portion of the additional net capitalisation for FY 2017-18 and FY 2018-19 has been considered as the equity addition for the year. The Commission has considered rate of return as 16% on average equity for the year. The RoE approved after final true-up for FY 2017-18 and provisional True-up of FY 2018-19 is shown in the Table below:



**Table 6-25: Approved RoE for FY 2017-18 and FY 2018-19 (Rs. cr.)**

Particulars	FY 2017-18			FY 2018-19		
	Prov. True-up	Petition	Approved	Tariff Order	Petition	Approved
Permissible Equity in Opening GFA	1,277.19	1,277.19	1,277.19	2,120.42	1,425.78	1,425.78
Permissible Equity in Closing GFA	1,364.29	1,425.78	1,425.78	2,326.14	1,650.20	1,650.20
Average Gross Permissible Equity during the year	1,320.74	1,351.49	1,351.49	2,223.28	1,537.99	1,537.99
Rate of Return (%)	16.00%	16.00%	16.00%	16.00%	16%	16%
<b>Return on Equity</b>	<b>211.32</b>	<b>216.24</b>	<b>216.24</b>	<b>355.72</b>	<b>246.08</b>	<b>246.08</b>

The Commission approves Return on Equity of Rs. 216.24 Cr. for FY 2017-18 and Rs. 246.08 Cr. for FY 2018-19 as shown in the Table above.

### 6.13 Non-Tariff Income

#### CSPDCL's Submission

CSPDCL submitted Non-Tariff income of Rs. 313.83Cr. for FY 2017-18 for the purpose of final true-up. This includes Rs. 257.78 cr. towards Non-tariff income and Rs. 56.05Cr. towards revenue from Wheeling Charges, Open Access and Cross-Subsidy Charges.

Further, CSPDCL submitted Non-Tariff Income of Rs. 281.54Cr. for FY 2018-19, which includes Rs. 228.90 cr. towards Non-tariff income and Rs. 52.64Cr. towards revenue from Wheeling Charges, Open Access and Cross-Subsidy Charges.

#### Commission's View

The Commission notes that CSPDCL has claimed Non-tariff Income of Rs. 313.83 Cr. for FY 2017-18 and Rs. 281.54 Cr. for FY 2018-19. The Commission sought the reconciliation of Non-tariff claimed in the Petition vis-à-vis income reported in audited/provisional accounts. In response to this, CSPDCL submitted the reconciliation of the total revenue as given in Table below:

**Table 6-26: Reconciliation of Non-tariff Income submitted by CSPDCL (Rs. cr.)**

Sl. No.	Particulars	FY 2017-18	FY 2018-19
<b>A</b>	<b>Submitted in the Petition</b>		
1	Revenue from Sale of Power	11,416.68	12,647.85
2	Non-tariff Income	313.83	281.54
3	Revenue from Sale of Surplus Power	2480.91	2475.01
<b>4</b>	<b>Grand Total</b>	<b>14,211.42</b>	<b>15,404.40</b>
<b>B</b>	<b>Reconciliation with Accounts</b>		
5	Revenue from operation	14,372.55	15,475.16
6	Other Income	434.55	429.24
7	Exceptional Items	-	70.32
8	Sub-total	14,806.80	15974.72
9	Less: Non-consideration of Other Miscellaneous Revenue	-	74.37
10	<i>Less: Revenue from Delay Payment Charges</i>	215.66	426.10
11	<i>Less: Interest on Other Loans and Advances</i>	221.54	185.44
12	<i>Less: St.Excess on Physical Verification Of Fuel Stock</i>	109.99	115.00
13	<i>Less: Surcharge One Time Settlement Agr Adjustment</i>	(0.75)	(1.42)
14	<i>Less: Loss compensation from GoCG for losses in 2016-17</i>	48.95	-
15	<i>Add: Extra rebate which is not received from GoCG, and is not recognised in the accounts, however is considered in the true up</i>	-	229.18
<b>16</b>	<b>Grand total</b>	<b>14,211.42</b>	<b>15,404.40</b>

From the above Table, it is observed that CSPDCL has considered certain exclusions from Revenue reported in audited accounts. The treatment of each expenses considered in the present Order is discussed as under:

The Commission accepted the reduction of revenue from Delay Payment Charges in line with the provision of CSERC MYT Regulations, 2015.

CSPDCL has not considered other Miscellaneous Revenue of Rs. 74.37 Cr.. There is no specific reason for non-consideration of revenue. Hence, for the purpose of provisional True-up, the Commission has considered this revenue under Non-tariff Income for FY 2018-19.

As regards Income as Interest on other loans and advances, the Commission sought details of such revenue from CSPDCL. CSPDCL clarified that, during FY 2016-17, Government of Chhattisgarh provided guarantee for following loans borrowed, amounting to Rs. 1,955 Cr., as against receivables towards 5HP agricultural consumers and BPL Consumers:

- (a) Loan from Power Finance Corporation, amounting to Rs. 595 Cr.
- (b) Loan from Rural Electrification Corporation, amounting to Rs. 595 Cr.
- (c) Loan from Union Bank of India, amounting to Rs. 500 Cr.
- (d) Increased Cash Credit limit from Union Bank of India of Rs. 265 Cr..

The guarantee was provided by the State government in lieu of reimbursement of Company's claim against supply of free electricity to the consumers of agricultural pumps under KJJY and to the Below Poverty Line (BPL) consumers. The principal along with Interest payment by the company is reimbursed by State Government.

During FY 2017-18, to reimburse Interest and the Principal repayment of the above loans to CSPDCL, the State Government took over bonds of Rs 300 Cr..

The Interest Income mentioned in the annual accounts is from the State Government in lieu of payments to be passed on the lenders of the above loans. Also, the amount of interest repaid is included under the expense head Finance Charges. The interest includes interest towards loans as well as bonds. The other income shown in accounts are just passing entries, present both in Other Income and Expenses. Hence, this income is not treated as a legible income in the ARR. The Commission finds rationale submitted by CSPDCL justified and hence, this Interest income is not considered for truing up purpose.

Further, the Commission accepts the submission regarding non-consideration of income towards adjustment entries of fuel stock and one-time settlement for Agriculture adjustment.

Further, the Commission has not taken into account actual losses or profit, hence, it would not appropriate to consider the loss compensation given by GoCG. Hence, the same amount is not considered under Revenue.

Further, the Commission sought head-wise details of Non-Tariff Income for FY 2017-18 and FY 2018-19 and explanation for the same. CSPDCL replied that since almost

all the constituents of Non-Tariff Income depend on external factors, it is beyond the control of CSPDCL to achieve Non-Tariff Income in line with the approved numbers. The Commission also scrutinized the head-wise amount of Non-Tariff Income reflecting in audited accounts for FY 2017-18 and provisional accounts for FY 2018-19.

In view of the above, the Commission has considered the Non-tariff Income of Rs. 313.83 Cr. for FY 2017-18 for the purpose of True-up.

After considering the revenue of Rs. 74.37 Cr., the Commission has approved the Non-Tariff Income of Rs. 355.51 Cr. for FY 2018-19 for the purpose provisional true-up.

**The Commission approves Non-Tariff Income of Rs. 313.83 cr. for FY 2017-18 and Rs. 355.51 cr. for FY 2018-19.**

#### 6.14 Aggregate Revenue Requirement

The Commission in provisional True-up Order for FY 2017-18 had approved the component-wise ARR. The Commission had approved revised ARR for FY 2018-19 in Tariff Order dated March 26, 2018. The final true-up for FY 2017-18 and provisional True-up of FY 2018-19 has been done with respect to the ARR components approved in these Tariff Orders. Based on the above, the summary of ARR approved in the Final True-up for FY 2017-18 is shown in the Table below:

**Table 6-27: Approved ARR for FY 2017-18 (Rs. cr.)**

Sr. No.	Particulars	Prov. True-up	Petition	Approved after Final True-up
<b>A</b>	<b>Power Purchase Expenses</b>	<b>12,068.83</b>	<b>9,958.86</b>	<b>12,247.72</b>
1	Power Purchase Cost *	10,876.55	8,763.43	11,066.72
2	Inter-State Transmission charge	291.75	301.18	301.18
3	Intra-State Transmission Charges	807.53	821.99	807.55
4	CSLDC Charges	6.66	7.54	7.54
5	Other Charges	86.34	-	-
6	Other Charges (OPTCL, Transmission-SWAP Charges, DSM Charges, Other Charges, Trading Charges etc.)	-	64.73	64.73

Sr. No.	Particulars	Prov. True-up	Petition	Approved after Final True-up
<b>B</b>	<b>Operation &amp; Maintenance Expenses</b>	<b>1,494.96</b>	<b>1,613.64</b>	<b>1,612.13</b>
1	Net Employee Expenses	912.72	935.30	935.31
2	Net Administrative and General Expenses	132.90	160.09	158.54
3	Net Repair and Maintenance charges	123.51	192.43	192.45
4	Pension & Gratuity	325.83	325.83	325.83
5	Interim Wage Relief	-	-	
<b>C</b>	<b>Interest &amp; Finance Expenses</b>	<b>80.67</b>	<b>89.95</b>	<b>96.28</b>
1	Interest on Loan	65.10	75.47	75.47
2	Interest on Security Deposit	105.28	101.97	101.97
3	Interest on Working Capital Requirement	(89.71)	(87.49)	(81.16)
<b>D</b>	<b>Other Expenses</b>	<b>339.05</b>	<b>346.49</b>	<b>346.49</b>
1	Depreciation	127.73	130.25	130.25
2	Return on Equity	211.32	216.24	216.24
<b>E</b>	<b>Gain/(Loss) on Efficiency</b>	<b>58.05</b>	<b>(13.56)</b>	<b>(47.29)</b>
1	Gain/(Loss) on Sharing O&M Efficiency	58.05	(13.56)	(47.29)
<b>F</b>	<b>Less: Non-Tariff Income</b>	<b>285.10</b>	<b>313.83</b>	<b>313.83</b>
1	Non-Tariff Income	232.37	257.78	257.78
2	Wheeling Charges, Open Access & Cross Subsidy Charges	52.73	56.05	56.05
<b>G</b>	<b>Aggregate Revenue Requirement</b>	<b>13,756.46</b>	<b>11,681.55</b>	<b>13,941.49</b>

*Note: \* - Revenue from sale of surplus power has been considered separately, whereas CSPDCL has reduced the power purchase expenses to the extent of revenue from sale of surplus power*

Also, the summary of ARR approved in the provisional True-up for FY 2018-19 is shown in the Table below:

**Table 6-28: Approved ARR for FY 2018-19 (Rs. cr.)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Tariff Order</b>	<b>Petition</b>	<b>Approved after Provisional True-up</b>
<b>A</b>	<b>Power Purchase Expenses</b>	<b>9,579.57</b>	<b>10,412.43</b>	<b>12,602.71</b>
1	Power Purchase Cost	8,229.69	8,950.08	11,197.95
2	Inter-State Transmission charges (PGCIL)	341.63	398.67	398.67
3	Intra-State Transmission Charges	993.46	975.02	917.43
4	CSLDC Charges	14.79	14.03	14.03
5	Other Charges (OPTCL, Transmission-SWAP Charges, DSM Charges, Other Charges, Trading Charges etc.)	-	74.63	74.63
<b>B</b>	<b>Operation &amp; Maintenance Expenses</b>	<b>1,610.39</b>	<b>1,785.46</b>	<b>1,785.44</b>
1	Net Employee Expenses	892.8	887.03	887.04
2	Net Administrative and General Expenses	154.48	221.84	221.82
3	Net Repair and Maintenance charges	143.57	321.27	321.27
4	Pension & Gratuity	355.31	355.31	355.31
5	Interim Wage Relief	64.23	-	-
<b>C</b>	<b>Interest &amp; Finance Expenses</b>	<b>158.92</b>	<b>131.14</b>	<b>112.15</b>
1	Interest on Loan	96.39	110.69	110.69
2	Interest on Security Deposit	109.13	125.76	125.76
3	Interest on Working Capital Requirement	(46.60)	(105.31)	(124.31)
<b>D</b>	<b>Other Expenses</b>	<b>370.67</b>	<b>409.09</b>	<b>409.09</b>
1	Depreciation	136.22	163.01	163.01
2	Return on Equity	234.45	246.08	246.08
<b>E</b>	<b>Gain/(Loss) on Efficiency</b>	<b>-</b>	<b>-</b>	<b>(137.86)</b>
1	Gain/(Loss) on Sharing O&M Efficiency	-	-	(137.86)
<b>F</b>	<b>Less: Non-Tariff Income</b>	<b>333.41</b>	<b>281.54</b>	<b>355.91</b>
1	Non-Tariff Income	247.72	228.90	303.27
2	Wheeling Charges, Open Access & Cross Subsidy Charges	85.69	52.64	52.64
<b>G</b>	<b>Aggregate Revenue Requirement</b>	<b>11,386.14</b>	<b>12,456.58</b>	<b>14,415.62</b>

*Note: \* - Revenue from sale of surplus power has been considered separately, whereas CSPDCL has reduced the power purchase expenses to the extent of revenue from sale of surplus power*

## **6.15 Revenue from Sale of Power**

### **CSPDCL's Submission**

CSPDCL submitted the total revenue from sale of power as Rs. 11,416.68 cr. for FY 2017-18 as per audited accounts, as against revenue of Rs. 11,760.72 cr. approved by the Commission in the provisional True-up Order. Further, CSPDCL submitted that the Government of Chhattisgarh (GoCG) has provided revenue subsidy of Rs. 514.24Cr. towards rebate provided to steel industries. This subsidy has been included in the revenue considered in the Petition. Further, CSPDCL received Rs 48.95 cr. from GoCG on account of funding of losses in FY 2016-17, which is not considered in revenue submitted in the Petition.

Similarly, CSPDCL submitted total revenue from sale of power of Rs. 12,647.85 cr. for FY 2018-19 as per provisional accounts, as against revenue of Rs. 13,963.80 cr. approved by the Commission in the Tariff Order dated March 26, 2018.

CSPDCL submitted that in the Tariff Order dated March 26, 2018, the revenue was approved for FY 2018-19 at an Average Billing Rate (ABR) of Rs 6.44 per unit (i.e., Rs 13,963.80 for 21,674.76 MU of energy sales). However, the actual ABR achieved was Rs 5.69 per unit (i.e., Rs 12,647.85 Cr. for 22,210.22 MU sales). This is attributable to the lesser income from sale by Rs. 1,315.95 Cr. in FY 2018-19. Further, CSPDCL submitted that this income includes revenue subsidy of Rs. 299.56 Cr..

### **Commission's View**

The Commission notes that CSPDCL has submitted the revenue from sale of power as Rs. 11,416.68 Cr. for FY 2017-18 and Rs. 12,647.85 Cr. for FY 2018-19. The Commission notes that CSPDCL has included the revenue subsidy of Rs. 514.24 Cr. and Rs. 299.56 Cr. for FY 2017-18 and FY 2018-19, respectively, received from CoCG, in the revenue. The Commission sought the documentary evidences for revenue subsidy received. CSPDCL submitted the requisite details of the same.

Further, CSPDCL submitted that Income from Sale of Power includes the revenue subsidy of Rs 299.56 cr. towards rebate provided to Steel Industries from GoCG for

FY 2018-19. However, this figure has been revised to Rs. 297.26 cr. for FY 2018-19. Only Rs. 70.32 cr. has been received till March 31, 2019 and the balance amount of Rs.226.94 Cr. is receivable from State Government and has been considered at the time of finalization of accounts of FY 2018-19. Moreover, the receivable amount of Rs.226.94 Cr. may not have been reflecting in the provisional true up figures. In view of this, the Commission has considered the revised revenue subsidy of Rs. 297.26 Cr. for FY 2018-19.

Further, the Commission sought reconciliation of revenue from sale of power as submitted in the Petition vis-à-vis revenue reported in audited accounts. CSPDCL has submitted the requisite reconciliation and the same has been discussed in the Non-Tariff Income Section of this Order.

As per the methodology adopted in previous Tariff Orders, the Commission has treated revenue on account of sale of surplus power as revenue. These amounts have been discussed in earlier Section of this Order.

Also, as discussed in earlier Section of this Order, the Commission has considered the additional notional revenue for FY 2017-18 and FY 2018-19 towards Agriculture category.

The Commission has accordingly considered total Revenue for FY 2017-18 as shown in the Table below:

**Table 6-29: Approved Revenue for FY 2017-18 (Rs. cr.)**

Particulars	FY 2017-18		
	Prov. True-up	Petition	Approved
Revenue from Retail Sale of Electricity	10,895.24	10,902.44	10,902.44
Add: Subsidy from State Government	514.24	514.24	514.24
Add: Additional revenue for Agriculture Metered category	351.24	-	351.24
Add: Revenue from sale of Surplus Power*	2,457.48	-	2,435.91
<b>Total Revenue from Sale</b>	<b>14,218.20</b>	<b>11,416.68</b>	<b>14,203.82</b>

*Note: \* has been considered towards reduction of power purchase cost by CSPDCL*



Similarly, the Commission has considered total Revenue for FY 2018-19 as shown in the Table below:

**Table 6-30: Approved Revenue for FY 2018-19 (Rs. cr.)**

Particulars	FY 2018-19		
	Tariff Order	Petition	Approved
Revenue from Retail Sale of Electricity	13,963.80	12,348.29	12,348.29
Add: Subsidy from State Government	-	299.56	297.26
Add: Additional revenue for Agriculture Metered category	-	-	382.85
Add: Revenue from sale of Surplus Power*	-	-	2,445.86
<b>Total Revenue from Sale</b>	<b>13,963.80</b>	<b>12,647.85</b>	<b>15,474.26</b>

*Note: \* has been considered towards reduction of power purchase cost by CSPDCL*

**The Commission approves total revenue of Rs. 14,203.82 Cr. for FY 2017-18 and Rs. 15,474.26 Cr. for FY 2018-19, after including revenue from sale of surplus power.**

## **6.16 Revenue Gap/(Surplus)**

### **CSPDCL's Submission**

CSPDCL has submitted a standalone revenue gap of Rs. 264.88 Cr. for FY 2017-18 and Rs. 191.28 Cr. for FY 2018-19. Further, after considering the other adjustment of past revenue gaps and carrying cost, CSPDCL has submitted the cumulative revenue gap at end of FY 2018-19 as Rs. 3165.11 Cr..

### **Commission's View**

The summary of revenue gap/(surplus) approved after final truing-up of FY 2017-18 for CSPDCL is shown in the Table below:

**Table 6-31: Approved Stand-alone Revenue Gap/(Surplus) for FY 2017-18 (Rs. cr.)**

Sl. No.	Particulars	Petition	Approved after Final True-up
1	Net ARR	11,681.55	13,941.49
2	Revenue from Sale of Power	11,416.68	14,203.82
<b>3</b>	<b>Standalone Revenue Gap/(Surplus)</b>	<b>264.88</b>	<b>(262.33)</b>
4	Opening Revenue Gap/(Surplus)	-	-
5	Add: Standalone Revenue Gap/(surplus)	264.88	(262.33)
6	Add: Claim to be adjusted against Review Order dated 8 Dec 2014 in Petition No 35/2014 (T)	5.79	5.79
7	Add: True-up of Revenue Gap of CSPDCL	1,257.81	1,257.81
8	Less: Revenue Gap adjusted in Tariff Order for FY 2019-20	801.85	801.85
<b>9</b>	<b>Closing Revenue Gap/(Surplus)</b>	<b>726.63</b>	<b>199.42</b>
10	Rate of Interest (%)	12.60%	12.60%
11	Carrying /(Holding) cost	45.78	12.56
12	Total Closing Revenue Gap/(surplus) at end of the year	<b>772.41</b>	<b>211.98</b>

Similarly, the summary of revenue gap/(surplus) approved after provisional true-up of FY 2018-19 for CSPDCL is shown in the Table below:

**Table 6-32: Approved Stand-alone Revenue Gap/(Surplus) for FY 2018-19 (Rs. cr.)**

Sl. No.	Particulars	Petition	Approved after Provisional True-up
1	Net ARR	12,456.58	14,415.62
2	Revenue from Sale of Power	12,647.85	15,474.26
<b>3</b>	<b>Standalone Revenue Gap/(Surplus)</b>	<b>(191.28)</b>	<b>(1,058.64)</b>
4	Opening Revenue Gap/(Surplus)	772.41	211.98
5	Add: Standalone Revenue Gap/(surplus)	(191.28)	(1,058.64)
6	Add: Revenue Gap/Surplus for CSPDCL for FY 2016-17 including carrying cost as given in Tariff Order FY 2018-19	2,357.60	2,357.60
<b>7</b>	<b>Closing Revenue Gap/(Surplus)</b>	<b>2,938.73</b>	<b>1,510.95</b>
8	Rate of Interest (%)	12.20%	12.20%
9	Carrying /(Holding) cost	226.38	105.10
10	Total Closing Revenue Gap/(surplus) at end of the year	<b>3,165.11</b>	<b>1,616.04</b>

Further, the Commission has considered carrying cost for FY 2019-20 on the Revenue Gap arrived at end of FY 2018-19 as computed in the above Table.

The Cumulative revenue gap arrived till FY 2019-20 is computed as shown in the following Table:

**Table 6-33: Cumulative Revenue Gap with Carrying Cost till FY 2019-20 (Rs. cr.)**

<b>Sl. No.</b>	<b>Particulars</b>	<b>Petition</b>	<b>Approved in this Order</b>
1	Opening Revenue Gap/(surplus)	3,165.11	1,616.04
2	Addition of Revenue Gap	-	-
3	Closing Revenue Gap/(Surplus)	3,165.11	1,616.04
4	Interest Rate (%)	12.45%	12.45%
5	Carrying cost for the year	394.06	100.60
<b>6</b>	<b>Total Closing Revenue Gap/(Surplus) at end of the year</b>	<b>3,559.17</b>	<b>1,716.64</b>

**The Commission approves cumulative revenue gap of Rs. 1,716.64Cr. at end of FY 2019-20 for CSPDCL. This revenue gap has been adjusted in ARR for FY 2020-21 as discussed in subsequent chapter.**

## **7 REVISED ARR FOR FY 2020-21**

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### **7.1 Background**

ARR for CSPGCL, CSPTCL, CSLDC and CSPDCL for Control Period from FY 2016-17 to FY 2020-21 has been approved in MYT order dated April, 30, 2016. Regulation 5.8 (b) (ii) of the CSERC MYT Regulations, 2015 specifies as under:

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

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

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

In accordance with the CSERC MYT Regulations, 2015, CSPDCL has submitted the revised projection of sales, power purchase and revised ARR for FY 2020-21.

In view of the above, in this Chapter, the Commission has revised the projection of energy sales, power purchase and determined the revised ARR for FY 2020-21 for CSPDCL.

Also, the Commission has revised ARR for CSPGCL, CSPTCL and CSLDC for FY 2020-21.

### **7.2 Revised ARR for CSPGCL, CSPTCL and CSLDC**

The Commission in MYT order has approved ARR for CSPGCL, CSPTCL and CSLDC for control period from FY 2016-17 to FY 2020-21. In general, the fixed cost component of approved ARR of these utilities is not supposed to be revised during the control period, except as otherwise during mid-term review.

As per Regulation 4.3 of CERC MYT Regulations, 2015, the Commission, under mid-term review, shall carry out a detailed analysis of the actual capital expenditure incurred vis-à-vis approved targets and attribute any variations or expected variations in performance. Also, CSERC MYT Regulations, 2015 specifies that any variation other than those specified in Regulation 11, shall not be reviewed by the Commission during control period. The Commission notes that mid-term review was not filed by these utilities.

Also, in the said MYT order, the projection of ARR is considered based on projected capitalisation and inflation indices. Since, FY 2020-21 is last year of the control period, it would not be appropriate to continue with the said projections. Hence, the Commission has revised ARR for CSPGCL, CSPTCL and CSLDC on account of revision in capital expenditure and inflation indices.

The Commission, under CSERC MYT Regulations, 2015, has inherent powers to review the performance of utilities and revise ARR during the control period. Accordingly, the Commission has revised ARR for control period for CSPGCL, CSPTCL and CSLDC on account of the following:

### **7.2.1 Revision of AFC for CSPGCL**

#### ***On account of Revised Capital Investment Plan***

In MYT Order, Annual Fixed Cost for each generating stations of CSPGCL (excluding ABVTPP) has been approved, which is based on approved Capital Investment Plan. For ABVTPP, the Commission has approved the Annual Fixed Cost and energy charge for FY 2019-20 in its Tariff Order dated July 7, 2018. Further, the Commission has issued Order vide dated 02.05.2020 for approval of revised Capital Investment Plan for CSPGCL. On account of such revision in capital investment plan, there would be reduction in Annual Fixed Cost because of reduction in depreciation, return on equity and interest on loan capital. Hence, for the purpose of approval of Annual Fixed Cost for FY 2020-21, the Commission provisionally approves the reduction in Annual Fixed cost which was approved in MYT Order on account of such revised Capital Investment Plan.

Further, for computation of impact of revised capital investment plan, the Commission has considered the closing balance of gross fixed assets, normative loan and regulatory equity as approved after final true-up for FY 2018-19. The capitalisation for FY 2019-20 is considered as approved in earlier Orders. Accordingly, the Commission has reduced Annual Fixed Cost for FY 2020-21, as shown in the Table below:

**Table 7-1: Approved Reduction in AFC for FY 2020-21 on account of reduction in CIP (Rs. Cr.)**

Stations	Depreciation		RoE		Interest on Loan		Total Impact of reduction in AFC
	MYT Order /Tariff Order	Revised	MYT Order /Tariff Order	Revised	MYT Order /Tariff Order	Revised	
KTPS	60.55	60.53	18.99	18.33	-	-	0.68
HTPS	42.63	33.54	76.57	69.00	34.46	21.64	29.48
DSPM	129.36	130.28	108.57	109.62	22.89	22.24	(1.31)
KWTTP	192.71	190.71	91.87	98.50	238.36	193.99	39.75
HB	2.65	2.65	5.85	5.85	-	-	-
ABV TPP	475.06	468.54	171.42	167.94	638.42	615.34	33.08
<b>Total</b>	<b>902.96</b>	<b>886.24</b>	<b>473.27</b>	<b>469.23</b>	<b>934.13</b>	<b>853.21</b>	<b>101.68</b>

**Revision in O&M Expenses**

In MYT Order O&M Expenses was approved as per provisions of CSERC MYT Regulations, 2015. While approving O&M Expenses, the Commission has considered the CPI of 9.05% and WPI of 6.77% based on average of CPI and WPI indices for the period from FY 2010-11 to FY 2014-15. Now, latest CPI and WPI indices are available. The Commission, in this Order has undertaken true-up for FY 2017-18 and FY 2018-19 based on CPI and WPI indices for the respective years. The Commission is of the view that change in O&M Expenses on account of changes in these indices is uncontrollable and the same has to be considered at time of true-up for respective year. However, based on latest trends, it is felt that there is need to review the O&M Expenses for FY 2020-21 on account of revision in CPI and WPI indices.

The Commission notified CSERC MYT Regulations, 2016 (First amendment) on June 16, 2017 and made it effective from April 1, 2017, whereby employee expenses are excluded from accounting of sharing of gains/(losses). Hence, the employee expenses are allowable on actual basis. Also, it is also noted that Dearness Allowance is freezed during FY 2020-21. Hence, the impact of the same is also required to be considered. In view of this, the Commission has revised O&M Expenses for FY 2020-21.

The Commission has considered the following indices for determining the O&M Expenses for FY 2020-21:

**Table 7-2: CPI Index and WPI Index considered for O&M Expenses for FY 2020-21**

Particulars	MYT Order	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
CPI Index	9.05%	4.12%	3.08%	5.45%	7.53%	7.53%
WPI Index	6.77%	1.73%	2.92%	4.32%	1.68%	1.68%
(CPI: WPI::60:40) Index	8.14%	3.16%	3.02%	5.00%	5.19%	5.19%

The above said CPI and WPI indices for respective years are applied on base expenses determined by the Commission for FY 2015-16, to arrive at revised normative O&M Expenses for FY 2020-21.

Accordingly, the generation station-wise O&M Expenses for CSPGCL are computed for FY 2019-20 as shown in the following Table:

**Table 7-3: Revised O&M Expenses for CSPGCL for FY2020-21 (Rs. Cr.)**

Particulars	FY 2020-21					
	KTPS	HTPS	DSPM	Hasdeo Bango	KWTPP	ABVTPP
Employee Expenses	120.58	228.63	81.38	11.11	104.90	209.80
A&G Expenses	9.16	16.87	12.14	1.62		
R&M Expenses	37.30	102.06	80.93	2.26		
<b>Total O&amp;M Expenses</b>	<b>167.04</b>	<b>347.56</b>	<b>174.45</b>	<b>15.00</b>	<b>104.90</b>	<b>209.80</b>

On account of revision in Depreciation, Return on Equity, Interest on loan capital because of revised Capital Investment Plan and revised O&M Expenses, the Commission has approved revised Annual Fixed Cost for existing Generating Stations, except ABVTPP, as shown in the following Table:

**Table 7-4: Revised Annual Fixed Cost for CSPGCL's generating Stations for FY 2020-21 (Rs. Cr.)**

Particulars	KTPS	HTPS	DSPM	KWTPP	ABVTPP	Hasdeo Bango
Annual Fixed Cost	263.20	538.91	456.42	604.30	1,508.31	25.60
Contribution to Pension and Gratuity	65.60	67.92	11.16	10.99	24.81	4.53
<b>Total AFC</b>	<b>328.80</b>	<b>606.83</b>	<b>467.58</b>	<b>615.29</b>	<b>1,533.12</b>	<b>30.13</b>

## 7.2.2 Revision of Annual Fixed Cost for CSPTCL and CSLDC

### *On account of Revised Capital Investment Plan*

In MYT Order, Annual Fixed Cost of CSPTCL has been approved, which is based on approved Capital Investment Plan. Further, it is noted that, there is difference in the capitalisation considered in MYT Order and actual capitalisation incurred in each year. For FY 2020-21, the Commission has considered the actual capitalisation of Rs. 162.35 Cr. for CSPTCL. The rate of interest has been considered as 10.86%. Also, it is noted that project activities are going to be delayed because of COVID-19 pandemic situation. Hence, the actual capitalisation as envisaged in MYT Order will not be achieved. In view of this, the Commission has estimated the capitalisation of Rs. 62.35 Cr.. Accordingly, revised Depreciation, ROE and Interest on Loan capital for FY 2020-21 are estimated as under:

**Table 7-5: Approved Reduction in AFC for FY 2020-21 on account of reduction in Capitalisation for CSPTCL (Rs. Cr.)**

Stations	Depreciation		RoE		Interest on Loan		Total Impact of reduction in AFC
	MYT Order	Revised	MYT Order	Revised	MYT Order	Revised	
CSPTCL	242.70	242.12	208.38	206.00	221.45	198.77	25.65

### *On account of Revision in O&M Expenses*

As discussed earlier, O&M Expenses for CSPTCL and CSLDC are revised based on CPI and WPI Indices. The revised O&M Expenses computed for FY 2020-21 as shown in the following Table:

**Table 7-6: Revised O&M Expenses for CSPTCL and CSLDC for FY 2020-21 (Rs. Cr.)**

Particulars	CSPTCL		CSLDC	
	MYT Order	Revised Approved	MYT Order	Revised Approved
Employee Expenses	220.02	186.72	8.75	7.42
A&G Expenses	37.63	44.21	1.50	1.22
R&M Expenses	38.57	45.31	2.19	1.79
<b>Total O&amp;M Expenses</b>	<b>296.22</b>	<b>276.24</b>	<b>12.44</b>	<b>10.42</b>



In view of the above, the Commission has revised ARR for FY 2020-21 for CSPTCL and CSLDC as shown in the following Table:

**Table 7-7: Revised ARR for CSPTCL and CSLDC for FY 2020-21 (Rs. Cr.)**

<b>Particulars</b>	<b>CSPTCL</b>	<b>CSLDC</b>
Aggregate Revenue Requirement	932.90	12.00
Contribution to Pension and Gratuity	69.52	1.71
<b>Total ARR</b>	<b>1,002.42</b>	<b>13.71</b>

### 7.3 Energy Sales

#### **CSPDCL's Submission**

CSPDCL submitted that there are various factors, which can have an impact on the actual consumption of electricity and are often beyond the control of the licensee, such as Government Policy, economic climate, weather conditions, force-majeure events like natural disasters, change in consumption mix, etc. Hence, various factors affecting electricity consumption considered and inter-relationships have been estimated among them to arrive at a forecast of energy sales within a range for the purpose of estimating future costs/revenues. Further, CSPDCL added that CSERC MYT Regulations, 2015 has specified sales mix and quantum of sales as uncontrollable, which are beyond the control of the licensee, and could not be mitigated by the licensee.

The Commission in its Tariff Order dated April 30, 2016 had merged HV and EHV categories into supply at HV voltage level to be effective from April 1, 2016. CSPDCL, for projecting the category-wise energy sales, has categorized the past sales prior to FY 2017-18 based on new redefined categories/sub-categories and apportioned/transformed it so that the total actual sales category wise remains same. CSPDCL has considered the past growth trends in each consumer for projecting FY 2020-21.

Compounded Annual Growth Rates (CAGRs) are computed from the past figures for each category, corresponding to different lengths of time in the past five years for LV and HV respectively, along with the year on year growth. Pertinently, the CAGR is computed for each category of LV and HV consumers for the past 5-year period FY 2013-14 to FY 2018-19, the 4-year period FY 2014-15 to FY 2018-19, the 3-year

period FY 2015-16 to FY 2018-19, the 2-year period FY 2016-17 to FY 2018-19 along with the year-on-year growth rate of FY 2017-18 over FY 2018-19.

Further, actual figures of FY 2018-19 are considered as base for projection. CSPDCL submitted that, subject to the specific characteristics of each consumer category, 5-Year CAGR has been chosen as the basis of sales projection for that category. If an abnormal growth rate (very high), relative to the current trend, is observed at the beginning of the five-year period considered, then the maximum growth has been considered as 10% in that category/sub-category. Further, if 5-Year CAGR is less than 10% then the actual growth has been considered. In case of a declining trend, nil growth has been considered.

Further, CSPDCL submitted that, in the tariff order of 2019-20, the Commission made some modifications in the sub slabs of LV categories viz. Domestic, Non-Domestic, Agriculture allied and Industry. CSPDCL has adopted the following methodology to forecast Sales, Number of Consumers and Load in the above modified slabs:

The previous year's sales figures of the sub slabs according to older slabs in each of the slabs of which sub slabs were redefined/modified were added and then computed CAGR on these aggregate-slab wise values year wise.

Further actual sales data of FY 19-20 (April to July), which are captured in R-15 with the new slabs are analysed. The new sub slab's individual proportion in a certain slab's sales is then worked out.

The slab wise CAGR computed is applied to the slab wise aggregated figure to arrive at the FY 2020-21 figures and then this aggregate figure is divided among different new modified slabs according to proportion in actual sales data in April till July FY 2019-20.

The category-wise CAGR considered by CSPDCL and energy sales projected for FY 2019-20 is summarised in the following Table:

**Table 7-8: Consumer category-wise sales estimated by CSPDCL for FY 2020-21 (MU)**

Sr. No.	Category/Slab	FY 2020-21		
		CAGR Considered	Remarks	Revised Estimates
<b>A</b>	<b>LV</b>			<b>12,367.56</b>
1	Domestic Including BPL Consumers	7.28%	5 Year CAGR	5,751.98
2	Single Phase Non-Domestic (up to 3 KW)	4.80%	5 Year CAGR*	269.53
3	Three Phase Non-Domestic	4.80%	5 Year CAGR*	742.22
4	Agriculture	3.00%	Fixed**	3,888.36
5	Agriculture Allied Activities	1.60%	Wt. Average	16.87
<i>i</i>	<i>Up to 25 HP</i>	0.15%	5 Year CAGR	8.19
<i>ii</i>	<i>Above 25 HP up to 150 HP</i>	0.15%	5 Year CAGR	6.76
<i>iii</i>	<i>Demand Based Tariff for Contract Demand of 15 to 75 kW</i>	10.00%	Fixed	1.93
6	Industry	0.86%	5 Year CAGR	547.97
<i>I</i>	<i>Flour mills, Hullers, power looms, grinders for grinding masalas, terracotta, handloom, handicraft, agro-processing units, minor forest produce up to 25 HP or 18.7 kW</i>	0.86%	5 Year CAGR	74.12***
<i>II</i>	<i>Other Industries</i>	0.86%	5 Year CAGR	473.85***
7	Public Utilities	6.51%	5 Year CAGR	413.23
8	IT Industries	0.00%	No Growth	0.01
9	Temporary	5.00%	Fixed	737.38
<b>B</b>	<b>HV</b>			<b>11,880.71</b>
1	Railway Traction (132/220 kV)	3.27%	5 year CAGR	1048.85
2	Mines	5.98%	Wt. Average	704.42
3	Other Industrial & General Purpose Non-Industrial	2.31%	Wt. Average	2,146.72
4	Steel Industries	10.00%	Fixed	7632.66.
6	Irrigation & Agriculture Allied Activities, Public Water Works	5.33%	5 year CAGR	150.44
7	Residential	0.54%	5 year CAGR	184.36
8	Start Up Power (400/220/123/33/11 kV)	0.00%	No Growth	12.36
9	Industries related to manufacturing of equipment for power generation from renewable energy sources	10.00%	Fixed	0.48
10	IT Industry	0.00%	No Growth	0.44
11	Temporary	0.00%	No Growth	-
<b>C</b>	<b>Total</b>			<b>24,248.27</b>

\*For LV 2.1 and 2.2 Slabs were modified from FY 2019-20. The CAGR is computed by adding the previous year's figures of LV 2.1 and 2.2 and computing CAGR on these aggregate values year-wise.

\*\* This methodology is provided in Tariff Order Dated 18<sup>th</sup> February, 2019. Approved sale in FY 2019-20 is 3,775.11 MU's. Applied 3% approved escalation on 3,775.11 MU's to arrive at the sales for FY 2020-21.

\*\*\*For LV 5 Slabs were modified from FY 2019-20. The CAGR is computed by adding the previous year's figures of sub slabs in LV 5 and then and computing CAGR on these aggregate values year-wise. Further the actual sales data of FY 2019-20 for April till July is considered and the proportion of sub slabs in total aggregate LV 5 values is computed. The CAGR computed is applied to the

aggregated figure to arrive at the FY 2020-21 figures and then this aggregate figure is divided among different sub slabs according to proportion in actual Sales data in April till July FY 2019-20.

### **Commission's View**

For projecting the energy sales for respective categories, the Commission has analysed the trend of actual sales. Further, the Commission notes that, it has modified slabs for LV categories viz. Domestic, Non-Domestic, Agriculture allied and Industry in Tariff Order for FY 2019-20. For the purpose of projection of FY 2020-21, the Commission has projected the energy sales for such revised slabs/sub-categories as approved in Tariff Order for FY 2019-20. The Commission has also considered the assumptions made by CPSDCL for such revised slabs/sub-categories. The actual energy sales for FY 2018-19 as approved in this order for provisional True-up is considered as base figure for projection.

Further, the Commission notes that lock down has been implemented in State during early months of FY 2020-21 in view of COVID-19 pandemic. Hence, for projecting the energy sales for FY 2020-21, the Commission has taken conservative approach.

The category-wise sales projected by CSPDCL and approved by the Commission has been discussed in the paragraphs below:

#### **LV-1: Domestic Consumers including BPL consumers**

As against the sales of 8424.07 MU, approved in the MYT Order, CSPDCL has projected 5751.98 MU sales to this category. From the analysis of sales data, the Commission has observed that the sales to domestic category has increased at a CAGR of 7.28% over the last five years, 6.62% over the last four years, 4.19% over the last three years, 2.88% over the last two years, and 4.11% YoY, based on actual sales till FY 2018-19. CSPDCL has estimated the growth rate at 7.28% for FY 2019-20 over FY 2017-18 which appears to be much on the higher side. The Commission is of the view that it would be prudent to synchronise the estimation for FY 2020-21 with the 3-year CAGR of 4.19% over FY 2018-19. Accordingly, the Commission has estimated sales to domestic category (including BPL), as indicated in the table below:

**Table 7-9: Sales projection for LV Domestic Category (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
LV 1: Domestic Category	4,997.51	5,206.85	5,424.96

## LV-2: Non-Domestic Category

Regarding LV 2.1 Non-domestic category, the Commission notes that CSPDCL has projected sales of 1,011.75 MU for this category compared to 1272.52 MU approved in the MYT Order. Analysis of last five years' sales data points towards plateauing of growth rate over the last three years. The sales have increased at CAGR of 4.80% over the last five years, 4.52% over the last four years, 3.67% over the last three years, 3.36% over the last two years, and 2.73% YoY, based on actual sales for FY 2018-19.

Hence, for estimating the projection of sales to this category, the Commission deems it appropriate to adopt the 3-year CAGR of 3.67% over actual sales for FY 2018-19. Accordingly, the Commission has estimated sales to Non-domestic category for FY 2020-21 at 990.07 MU. The Commission has projected the slab-wise energy sales in the same proportion of the actual sales for FY 2018-19.

Further, the Commission notes that CSPDCL has considered the energy sales of 269.53 MU for Single Phase consumers and 742.22 MU for three phase consumers. For the purpose of projecting energy sales for sub-categories, the Commission has considered the contribution of each sub-category as submitted by CSPDCL.

Accordingly, the Commission has estimated the energy sales for LV 2.2 category. The projected sales for the category are indicated in the table below:

**Table 7-10: Sales projection for LV-2: Non-Domestic Category (MU)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
LV-2.1: Non-Domestic- Single Phase upto 3 kW		254.42	263.76
LV 2.2 Non-Domestic- Three Phase		700.61	726.31
<b>Total</b>	<b>921.22</b>	<b>955.03</b>	<b>990.07</b>

## LV 3: Agriculture Category

CSPDCL has projected the sales for Agricultural Category as 3,886.36 MU for FY 2020-21, by considering the fixed CAGR of 3% over estimated sales for FY 2019-20.

The Commission in its Tariff Order for FY 2019-20 has estimated energy sales for agriculture category by considering the norm of 265 units/HP/month. For the purpose of projection of energy sales, the Commission has considered norm of 273

units/HP/month after escalation of 3%. Accordingly, the Commission approves energy sales of 3983.53 MU for FY 2020-21.

#### **LV 4: Agriculture Allied Services**

The Commission notes that CSPDCL has projected 16.87 MU sales to this category as compared to the sales of 18.47 MU approved in the MYT Order. The sales to Agriculture Allied Services category have increased at CAGR of 1.60% over the last five years, 0.34% over the last four years, -0.19% over the last three years, -3.01% over the last two years, and -7.71%% year-on-year based on the actual sales for FY 2018-19.

The Commission notes that energy sales in this category in the past have decreased. The growth rates are negative in last three years. Hence, the Commission has considered 4 Year CAGR of 0.34% over and above actual sales of FY 2018-19. Accordingly, the Commission has estimated sales to Agriculture Allied Services category, as shown in the table below:

**Table 7-11: Sales projection for LV-4: Agriculture Allied Activities (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
LV-4: Agriculture Allied Activities	16.50	16.55	16.61

#### **LV 5: LT Industry**

CSPDCL has projected 547.97 MU sales to this category as compared to the sales of 502.32 MU approved in the MYT Order. The sales to LT Industry category have increased at CAGR of 0.86% over the last five years, 0.76% over the last four years, 0.53% over the last three years, 1.97% over the last two years, and 2.64% year-on-year based on the actual sales for FY 2018-19.

The Commission has observed the increasing trend in this category. However, the Commission has considered conservative approach because of lockdown in initial months of FY 2020-21. It is envisaged that energy sales for LT Industry would not increase much. Hence, the Commission has considered the 5-Year CAGR of 0.86% for projection of sales over the actual sales for FY 2018-19. The Commission has estimated sales to LT Industry category, as shown in the Table below:

**Table 7-12: Sales projection for LV-5: LT Industry (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
LV-5: Industry	538.68	543.30	547.97

### **LV 6: Public Utilities**

CSPDCL has projected 413.23 MU sales to this category as compared to the sales of 344.19 MU approved in the MYT Order. The sales to LT Public Utilities have increased at CAGR of 6.51% over the last five years, 6.52% over the last four years, 8.21% over the last three years, 7.33% over the last two years, and 3.14% year-on-year based on the actual sales for FY 2018-19.

The Commission has considered the 5-Year CAGR of 6.51% for projection of sales over the actual sales for FY 2018-19. The Commission has estimated sales to Public Utilities category, as indicated in the following table:

**Table 7-13: Sales projection for LV-6: Public Utilities (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
LV-6: Public Utilities	364.26	375.71	387.52

### **LV 8: Temporary**

CSPDCL has projected 737.38 MU sales to this category as compared to the sales of 1108.39 MU approved in the MYT Order. The sales to LT Temporary category have increased at CAGR of 16.41% over the last five years, 8.62% over the last four years, 6.39% over the last three years, 4.94% over the last two years, and (4.77)% year-on-year based on the actual sales for FY 2018-19.

It is noted that CSPDCL has projected energy sales at fixed growth rate of 5%. Also, YoY CAGR shows negative trend. The Commission has considered the growth rate of 5%. However, the reduction in energy sales of 90 MU has been considered as impact of COVID-19 pandemic. The Commission has estimated sales to LT Temporary category, as indicated in the following table:

**Table 7-14: Sales projection for LV-8 Temporary Category (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
LV-8: Temporary	668.83	702.27	642.17

## **HV 1: Railway Traction**

CSPDCL has estimated 1048.85 MU sales to this category as compared to the sales of 995.50 MU approved in the MYT Order. The sales to Railway Traction category have increased at CAGR of 3.27% over the last five years, 3.23% over the last four years, 3.39% over the last three years, 4.37% over the last two years, and 6.27% year-on-year based on the actual sales for FY 2018-19.

There is steady increase in energy sales to this category. Further, the Commission notes that Railways has opted for open access. Thereafter, energy sales to this category would reduce. However, for the purpose of energy sales projection, the Commission has not considered any growth and approve the energy sales equal to actual sales of FY 2018-19.

The Commission has estimated sales to HV Railway Traction category, as shown in the table below:

**Table 7-15: Sales projection for HV-1: Railway Traction category (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
HV-1: Railway Traction	983.48	983.48	983.48

## **HV 2: Mines**

CSPDCL has projected 704.42 MU sales to this category as compared to the sales of 793.32 MU approved in the MYT Order. The sales to HV Mines category have increased at CAGR of 10.37% over the last five years, 11.40% over the last four years, 12.51% over the last three years, 0.32% over the last two years, and 2.04% year-on-year based on the actual sales for FY 2018-19.

There is fluctuating trend in energy sales to this category in the past. The Commission has considered CAGR of 0.32%, which is 2-year CAGR, for projection of sales over the actual sales for FY 2018-19. Thus, the Commission has estimated sales to HV Mines category, as shown in the table below:

**Table 7-16: Sales projection for HV-2: Mines category (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
HV-2: Mines	629.21	631.23	633.26



### **HV 3: Other Industrial & General Purpose Non-Industrial**

CSPDCL has projected 2,146.72 MU sales to this category as compared to the sales of 3610.89 MU approved in the MYT Order. The sales to HV Other Industrial and General purpose Non-industrial category have shown negative trend increased in the past. The actual sales for FY 2018-19 are 2050.45 MU, which are lower than energy sales in FY 2013-14 of 2259 MU. The Commission has further analysed the growth rates for consumption at different voltage levels. It has been observed that there is decreasing trend for consumption at 132 kV and 220 kV level.

After considering the conservative approach, the Commission has not considered any growth in energy sales for this category over and above actual sales of FY 2018-19. The Commission has estimated sales to HV Other Industrial and General purpose Non-industrial category, as shown in the table below:

**Table 7-17: Sales projection for HV-3: Other Industrial & General Purpose Non-Industrial category (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
HV-3: Other Industrial & General Purpose Non-Industrial	2,050.45	2,050.45	2,050.45

### **HV 4: Steel Industries**

CSPDCL has projected 7,632.66 MU sales to this category as compared to the sales of 6168.25 MU approved in the MYT Order. The sales to HV Steel Industries category have increased at CAGR of 16.41% over the last five years, 17.29% over the last four years, 18.81% over the last three years, 24.00% over the last two years, and 30.41% year-on-year based on the actual sales for FY 2018-19.

The growth in consumption for this category is much higher in past two years. The Commission notes that CSPDCL has considered the CAGR of 10% for estimating the energy sales for this category. The Commission notes that the past increase in energy sales is much higher for this category. Also, the energy sales for this category would be low during initial month of the year because of lockdown. However, it is expected that, energy sales will increase during second half of the year. Compared to YoY CAGR of 30.41%, the Commission has taken conservative approach and considered fixed CAGR of 7.50%. The Commission has estimated sales to HV Steel Industries category, as shown in the table below:

**Table 7-18: Sales projection for HV-4: Steel Industries (MU)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
HV-4: Steel Industries	6,307.98	6,781.08	7,289.66

**HV 5: Irrigation & Agriculture Activities, Public Water Works**

The Commission has considered 3 Year CAGR of 2.66% over the actual sales for FY 2018-19. The Commission has estimated sales to this category, as shown in the table below:

**Table 7-19: Sales projection for HV 5: Irrigation & Agriculture Activities, Public Water Works category (MU)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
HV 5: Irrigation & Agriculture Activities, Public Water Works	135.61	139.22	142.93

**HV 6: Residential**

CSPDCL has projected 184.36 MU sales to this category as compared to the sales of 344.55 MU approved in the MYT Order. The Commission has not considered any growth over the actual sales for FY 2018-19. The Commission has estimated sales to this category, as shown in the table below:

**Table 7-20: Sales projection for HV-6: residential category (MU)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
HV 6: Residential	182.36	182.36	182.36

**HV 7: Start-up Power**

CSPDCL has projected 12.36 MU sales to this category as compared to the sales of 50.77 MU approved in the MYT Order. There is decreasing trend in consumption of this category in past years; hence, the Commission has not considered any growth over the actual sales for FY 2018-19. The Commission has estimated sales to Start-up Power category, as shown in the table below:

**Table 7-21: Sales projection for HV 7: Start-up Power category (MU)**

Particulars	FY 2018-19	FY 2019-20	FY 2020-21
HV 7: Start-up Power	12.36	12.36	12.36

### **HV 8: Industries related to manufacturing of equipment for RE power generation**

The Commission notes that CSPDCL has projected 0.39 MU sales to this category as compared to the sales of 1.67 MU approved in the MYT Order. The Commission has not considered any growth over the actual sales for FY 2018-19. The Commission has estimated sales to this category, as shown in the table below:

**Table 7-22: Sales projection for HV 8: Industries related to manufacturing of equipment for RE power generation (MU)**

<b>Particulars</b>	<b>FY 2018-19</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>
HV 8: Industries related to manufacturing of equipment for RE power generation	0.39	0.39	0.39

### **HV 10: Information Technology Industries and HV 11: Temporary Connection**

The Commission has accepted submission of CSPDCL's and has estimated sales of 0.44 MU for FY 2020-21 for this category

The summary of category-wise sales for FY 2020-21 by the Commission in this order, estimated by CSPDCL and as approved in the MYT order 2016 is shown in the table below:

**Table 7-23: Consumer category-wise sales estimated by the Commission for FY 2020-21 (MU)**

<b>Particulars</b>	<b>MYT Order 2016</b>	<b>CSPDCL Petition</b>	<b>Approved in this Order</b>
<b>LV Category</b>	<b>17,061.15</b>	<b>12,367.56</b>	<b>11,992.89</b>
LV 1: Domestic Including BPL	8,424.07	5,751.98	5,424.96
LV 2: Non-Domestic	1,452.89	1,011.75	990.07
LV 3: Agriculture – Metered	5,210.80	3,888.36	3,983.57
LV 4: Agriculture - Allied Activities	18.47	16.87	16.61
LV 5: LT Industry	502.32	547.97	547.97
LV 6: Public Utilities	344.19	413.23	387.52
LV 7: IT Industries	-	0.01	0.01
LV 8: Temporary	1,108.39	737.38	642.17
<b>HV Category</b>	<b>8,925.99</b>	<b>11880.71</b>	<b>11,295.33</b>
HV 1: Railway Traction	995.50	1,048.85	983.48
HV 2: Mines	793.32	704.42	633.26
HV 3: Other Industrial and General Purpose Non-Industrial	2,715.63	2,146.72	2,050.45
HV 4: Steel Industries	5,778.86	7,632.66	7,289.66
Low Load Factor Industries	72.55	-	-
HV 5: Irrigation & Agriculture Allied	96.05	150.44	142.93

<b>Particulars</b>	<b>MYT Order 2016</b>	<b>CSPDCL Petition</b>	<b>Approved in this Order</b>
Activities, Public Water Works			
HV 6: Residential	344.55	184.36	182.36
HV 7: Start-up Power Tariff	50.77	12.36	12.36
HV 8: Industries related to manufacturing of equipment for RE power generation	1.67	0.48	0.39
HV 9: Information Technology Industries	-	0.44	0.44
HV 10: Temporary Connection	-	-	-
<b>Total Sales for FY 2020-21</b>	<b>29,122.01</b>	<b>24,248.27</b>	<b>23,288.22</b>

#### **7.4 Energy Losses & Energy Balance**

##### **CSPDCL's Submission**

CSPDCL has submitted that it has considered intra-state transmission loss of 3.22% as approved in the MYT order dated April 30, 2016. Also, it has considered distribution loss of 16.50% for FY 2020-21.

After taking into account the projected energy sales for FY 2020-21, distribution loss of 16.50% and intra-State Transmission loss of 3.22%, CSPDCL has projected net energy requirement of 28,171.19 MU at distribution periphery.

##### **Commission's Views**

The proviso to Regulation 71.3 of MYT Regulations, 2015 (First amendment) notified on June 16, 2017 specifies that, if the State utility enters into any agreement with Government of India and/or Chhattisgarh Government, the energy loss trajectory agreed under the agreement shall prevail over the energy loss specified in this Regulations. The Commission notes that UDAY scheme stipulates target up to FY 2018-19 only. However, the same target has been maintained for FY 2019-20. It is also noted that capital expenditure is also going on for reduction of distribution losses. Also, as discussed in earlier section of this Order, there is larger scope for reduction of distribution losses on account of rectification of defective meters. Hence, the Commission approves target distribution loss (below 33 kV system) as 16% for FY 2020-21.

The Commission has approved the intra-State Transmission loss of 3.22% in the MYT Order. However, as discussed in earlier Chapter, the Commission provisionally

approved intra-State Transmission loss of 3% for FY 2018-19. Hence, it would not be appropriate to consider higher transmission losses, as actual losses are much lower. Hence, the Commission has considered intra-State Transmission loss of 3% for FY 2020-21 also. The energy balance approved by the Commission for FY 2020-21 is shown in the following Table:

**Table 7-24: Energy Balance approved by the Commission for FY 2020-21**

Particulars	Formulae	MYT Order 2016	CSPDCL Petition	Approved
LV Sales	A	17,061	12,367.56	11992.89
HV Sales (11 kV & 33 kV)	B	8,432	8,242.67	7,847.00
Sub-total	C=A+B	<b>25,493</b>	<b>20,610.22</b>	<b>19,839.89</b>
<b>Energy Loss below 33 kV (%)</b>	<b>D</b>	<b>18%</b>	<b>16.50%</b>	<b>16.00%</b>
Distribution Loss below 33 kV (MU)	E	5,596	4,072.68	3,779.03
Gross Energy requirement at 33 kV level	F=C+E	31,089	24,682.90	23,618.92
Less: Direct Input to distribution at 33 kV level	G	2,183	149.75	150.75
Net Energy Input required at Distribution Periphery at 33 kV level	H=F-G	28,906	24,533.15	23,468.17
Sales to HV consumers (132 kV & 220 kV)	I	3,629	3,638.04	3448.33
<b>Net Energy requirement at Distribution periphery</b>	<b>J=H+I</b>	<b>32,535</b>	<b>28,171.19</b>	<b>26,916.50</b>
Energy loss including EHV Sales	K	16.12%	14.38%	13.96%
Intra-State Transmission loss (in %)	L	3.22%	3.22%	3.00%
Intra-State Transmission loss (in MU)	M	1082	937.29	832.47
<b>Net energy requirement at Transmission periphery</b>	<b>N=J+M</b>	<b>33,618</b>	<b>29,108.48</b>	<b>27,748.97</b>

## 7.5 Power Purchase Expenses

### CSPDCL's Submission

CSPDCL submitted that it has broadly categorised the sources of energy into State owned Generation i.e., Generation from CSPGCL, Allocation (firm and non-firm) from Central Generating Stations (CGS), Captive Power Plants (CPPs), Independent Power Producers (IPPs), Biomass, and Solar Power Plants and Short-Term/UI/Bilateral purchases, etc. CSPDCL further submitted that new Central and State Generating Plants scheduled to commence generation during the MYT Control Period and accordingly provided the expected commissioning date.

CSPDCL has projected the purchase of power from various sources as detailed below:

### Power Purchase from Central Generating Stations

CSPDCL submit that it has firm allocation of power from Central Generating Stations like Korba Super Thermal Power Station (STPS), Vindhyachal Thermal Power Station, Sipat Super Thermal Power Station, Kahalgaon Super Thermal Power Station, Mauda Super Thermal Power Station, Solapur Super Thermal Power Station, Tarapur Atomic Power Stations and LARA Super Thermal Power Station (STPS) Unit I, etc. to meet its energy requirement.

The power purchase cost mainly comprises of fixed charges and energy charges for two-part tariff stations i.e. NTPC, NPCL & other in case of petitioner. CSPDCL has considered the latest four months average energy charge (excluding FSA) for projecting the energy charge for the FY 2020-21. The fixed charges have been considered at same level as FY 2019-20 as per the latest tariff orders issued by the Central Electricity Regulatory Commission (CERC). CSPDCL while estimating the costs, have considered only the fixed and energy charge and has estimated that any cost over & above would be passed through on actual basis.

**Gross Energy Availability:** CSPDCL estimated the gross energy availability from the existing stations based on the allocated capacity and the average Plant Load Factor (PLF) for the past five years and same has been considered for FY 2020-21 for calculating the gross energy availability for state. For the stations recently commissioned, CSPDCL has considered PLF of 80%.

The summary of the power purchase quantum and cost as submitted by CSPDCL for CGS is shown in the Table below:

**Table 7-25: Power Purchase from CGS as projected by CSPDCL for FY 2020-21**

Sr. No.	Source	Units Purchased (MU)	Fixed Cost (Rs. cr.)	Variable Cost (Rs. cr.)	Total Cost (Rs. cr.)
1	Korba STPS	1,508.36	100.50	204.23	304.74
2	Korba STPS Unit VII	550.47	73.48	73.12	146.6
3	Vindhyachal	1,412.59	194.14	240.25	434.40
4	Sipat STPS	3,254.09	427.39	463.85	891.23
5	Mauda STPS	984.51	141.31	324.92	466.23
6	NTPC - SAIL (NSPCL)	297.31	52.60	112.58	165.19
7	Lara STPS	4,143.32	-	1,773.34	1773.34
8	Solapur STPS	1041.12	104.74	362.96	467.7
9	Gaderwara STPS	1026.45	110.34	335.03	445.37
10	Kahargaon STPS	823.91	-	352.63	352.63

Sr. No.	Source	Units Purchased (MU)	Fixed Cost (Rs. cr.)	Variable Cost (Rs. cr.)	Total Cost (Rs. cr.)
11	Kahalgaon STPS	185.83	23.12	39.59	62.71
12	Tarapur (Unit 3 &4 )	298.35	-	91.62	91.62
13	Kakrapar (Unit 3 &4 )	270.38	-	143.57	143.57
14	Hirakund (OHPCL)	13.95	-	3.17	3.17
Total Central Generating Stations		15,810.65	1,227.62	4,520.86	5,748.51

### Power Purchase from State Generating Stations

CSPDCL submitted that it mainly relies on the power from State Generating Station. Currently, it has allocation of 3,225 MW from the State generating company i.e. CSPGCL. CSPDCL, while estimating the costs, have considered the fixed charges and energy charges of existing stations as approved by the Commission in its MYT Order dated April 30, 2016 for projecting the energy charge for the FY 2020-21 and has estimated that any cost over & above would be passed though on actual basis. The projection for Quantum of energy purchased from each State generating station is based on PLF as approved by Commission in its MYT Order dated April 30, 2016 for FY 2020-21.

The total power purchase cost along with quantum from CSPGCL is shown below:

**Table 7-26: Power Purchase from State Generating Stations submitted by CSPDCL for FY 2020-21**

Source	Units Purchased (MU)	Fixed Cost (Rs cr.)	Variable Cost (Rs cr.)	Total Cost (Rs cr.)
KTPS – East	1,306.12	361.63	277.29	638.92
DSPM	3,387.93	502.08	518.01	1020.09
Hasdeo TPS	5,133.20	704.32	803.35	1507.67
KTPS- West	3,527.54	681.99	468.10	1150.09
ABVTPP	6,349.58	1,624.11	1,015.30	2639.41
HPS Bango	271.26	33.00	-	33
HPS Korba Mini Hydro	4.38	-	1.67	1.67
HPS Gangrel	25.75	-	9.48	9.48
HPS Sikaser	24.04	-	6.46	6.46
Co-Gen Kawardha	47.70	-	22.75	22.75
<b>Total State Generating Stations</b>	<b>20,077.49</b>	<b>3,907.13</b>	<b>3,122.41</b>	<b>7,029.54</b>

### Power Purchase from Renewable Sources

The Commission in its CSERC (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2016 has shown a trajectory for RPO compliance till FY 2020-21. Further in its MYT Order dated 30<sup>th</sup> April 2016, it has increase solar trajectory by 0.50% for FY 2016-17. CSPDCL has considered the same percentage of total consumption for meeting RPO for FY 2020-21 with an addition of 0.50% in solar as shown below:

**Table 7-27: Minimum quantum of electricity to be procured through renewable sources**

Category	FY 2020-21
Solar	5.00%
Non-Solar	8.00%

For the purpose of projections, CSPDCL has considered R.E. purchase at same level and rates as actuals for FY 2017-18. The remaining shortfall is proposed to be met through R.E. Certificate purchase at floor price approved by CERC. Based on the above, the quantum of renewable energy required to be purchased by CSPDCL and as estimated for FY 2020-21 is shown in the Table below:

**Table 7-28: Purchase of RPO in FY 2020-21 as projected by CSPDCL**

Source	Units Purchased (MU)	Fixed Cost (Rs cr.)	Variable Cost (Rs cr.)	Total Cost (Rs cr.)
Biomass	686.28	-	421.38	421.38
Solar	571.60	-	371.10	371.10
Hydel/Other RE	94.05	-	36.21	36.21
RECs			228.21	228.21
<b>Total Renewables</b>	<b>1,351.93</b>	<b>-</b>	<b>1,056.89</b>	<b>1,056.89</b>

### Power Purchase from Concessional Sources

For the purpose of projections for FY 2020-21, CSPDCL has considered of concessional power at same level as actuals for FY 2018-19 and rate at Rs 160 Paise/Unit as shown in table below:

**Table 7-29: Concessional Power Purchase as projected by CSPDCL for FY 2020-21**

Source	Units Purchased (MU)	Fixed Cost (Rs cr.)	Variable Cost (Rs cr.)	Total Cost (Rs cr.)
Concessional Power	1,530.87	-	244.94	244.94



### Power Purchase from Short-Term Sources

CSPDCL humbly submits that while there is estimated net surplus of power, as seen from past trends, there is still a shortage of power during certain durations of day/month/year. Accordingly, CSPDCL would like to submit that it has considered short term purchase of 100 MU from exchange and availability of 239.13 MU from the unscheduled sources and requests the Commission to kindly approve the same for the FY 2020-21 as shown in the Table below:

**Table 7-30: Short-term Power Purchase as projected by CSPDCL for FY 2020-21**

Source	Units Purchased (MU)	Fixed Cost (Rs cr.)	Variable Cost (Rs cr.)	Total Cost (Rs cr.)
IEX/PXIL/Traders	100.00	-	25.80	25.80
Unscheduled sources	239.13	-	31.56	31.56
<b>Total Short-Term Purchase</b>	<b>339.13</b>	<b>-</b>	<b>57.36</b>	<b>57.36</b>

### Transmission Charges – Inter-State, Intra-State and CSLDC Charges

CSPDCL has to pay transmission charges to PGCIL for use of transmission facilities enabling power drawal from Western and Eastern region. The calculation of PGCIL charges has been calculated as per prevailing CERC Regulation for Point of Connection (PoC) rates and transmission losses and are as per latest CERC Order No. L-1/44/2010-CERC dated 10<sup>th</sup> October 2019.

Further intra-state transmission charges and SLDC charges have been considered at same level as approved by the Commission in the MYT Order dated MYT Order dated 30<sup>th</sup> April 2016.

CSPDCL submitted the transmission and other charges for the FY 2020-21 as shown in the table below:

**Table 7-31: Transmission Charges as projected by CSPDCL for FY 2020-21**

Source	Total Cost (Rs cr.)
Interstate Transmission Charges	603.93
Intrastate Transmission Charges	1,049.02
CSLDC Charges	16.96
<b>Total</b>	<b>1,669.91</b>

### **Inter-State Sale**

CSPDCL has considered sale of power of Marwa at State-periphery at actual weighted average purchase rate and sale of balance surplus power has been estimated at Rs 3.56/kWh (as approved by the Commission in the Tariff Order dated 28<sup>th</sup> February 2019).

CSPDCL would also like to submit that the sale of electricity other than to retail consumers is not within the regulatory purview of the Commission. As electricity cannot be stored, the surplus energy has to be sold as and when available at the market realised rates. The availability of surplus energy is dependent on the consumption of the consumers and not on the licensee. The sale of surplus energy is always ensured to be sold with the objective of maximising the revenue from such sale and to pass on the accrued benefit to the retail consumers.

### **Commission's Views**

The details submitted by CSPDCL has been analysed in detail and additional information was asked on the same. The Commission has approved the Power Purchase expense for FY 2020-21 in the following manner:

### **Energy Availability**

As discussed in earlier Section of this Order, the Commission has computed the energy requirement at State periphery as 27,748.97 MU for FY 2020-21.

For meeting this energy requirement, firstly, the Commission has computed the energy availability from different sources, as under:

- (a) For existing Central Generating Stations, the energy availability has been considered based on average PLF for last five years and allocated share of State of Chhattisgarh. For new generating stations, availability has been considered as proposed by CSPDCL.
- (b) As regards Lara TPS, Unit 1 has been considered to be available for the full year. However, Unit 2 COD is expected in September 1, 2020. The energy availability from Lara STPS has accordingly been estimated at 50% PLF. As regards Kahalgaon and Gaderwara STPS (Unit I & II), the energy availability has been considered as considered by CSPDCL.
- (c) As regards availability from CSPGCL stations, normative PLF as approved by

the Commission has been considered after verification with past actual generation from respective Stations. The energy availability from Hydro and Renewables has been considered as submitted by CSPDCL.

- (d) The availability of power from existing as well as new Renewables and Concessional Power has been considered as submitted by CSPDCL.
- (e) While considering the energy availability from various sources, the energy requirement for sale of power to Telangana State has also been considered.

Based on the above, total energy availability, energy requirement and surplus available has been estimated as shown in the following Table:

**Table 7-32: Energy Availability (MU) as projected by Commission for FY 2020-21**

Sr. No.	Source	FY 2020-21
1	CGS Stations	15,595.23
2	CSPGCL Stations	20,077.49
3	Biomass	686.28
4	Solar	571.60
5	Hydel and Other RE sources	94.05
6	Concessional Power	1,530.87
<b>7</b>	<b>Total Energy Available at Generator End</b>	<b>38,555.53</b>
8	Less: Inter State Transmission Losses	482.54
9	Less: Input to Distribution at 33 kV	150.75
<b>10</b>	<b>Gross Energy Available at State Periphery</b>	<b>37,922.23</b>
11	Less: Sale to Power to Telangana State	6,159.09
<b>12</b>	<b>Net Energy Available at State Periphery (A)</b>	<b>31,763.14</b>
<b>13</b>	<b>Net Energy Requirement at State Periphery (B)</b>	<b>27,748.97</b>
<b>14</b>	<b>Surplus Energy Available on annual basis (A-B)</b>	<b>4,014.18</b>

From the above Table, it is observed that, there is surplus energy available on annual basis, after considering the energy requirement. In order to mitigate the energy requirement at State periphery, there are two options. One option is to purchase all the energy available and sell the surplus energy available in the open market. Other option is to surrender the energy available and purchase the energy equal upto energy requirement.

The Commission in the past Tariff Orders, while estimating the power purchase cost, has considered the cost towards purchase of all energy available and considered the sale of surplus power available on annual basis at market rate. However, sale of surplus power is subject to market scenario.

For the purpose of estimation of power purchase cost for FY 2020-21, the Commission has considered the surrender of surplus power available, i.e., not scheduling of energy from contracted sources, after meeting the energy requirement. The energy purchase has been considered based on economic despatch principle. Accordingly, the following approach has been adopted:

Energy available at State periphery has been computed after applying inter-State transmission losses.

The energy purchase from Hydro Stations, Renewables, and Concessional Power has been considered as per energy availability.

The energy purchase from Thermal Generating Stations, including CSPGCL's Stations and CGS, has been considered based on economic despatch principle on monthly basis. For such consideration, latest available Energy Charges has been considered.

After applying economic despatch principle on monthly basis, the shortfall derived has been considered towards additional energy purchase through short-term market.

In case of new Generating Station, Energy Charge has been considered at 50% of total per unit charges as submitted by CSPDCL, for the purpose of economic despatch.

In this Order, the Commission has not estimated any sale of surplus power. CSPDCL should however endeavour to maximise the revenue through sale of such additional energy, to the extent actually available, in order to pass on the benefits to the consumers of the State.

Accordingly, the energy purchase estimated by the Commission for FY 2020-21 is summarised in the following Table:

**Table 7-33: Energy Purchase (MU) as projected by Commission for FY 2020-21**

Sr. No.	Source	Energy Availability (MU)	Energy Purchase			Energy Surrender/ (purchase) (MU)
			From Thermal generating Stations	From Other Sources	Total	
1	CGS Stations	15,595.23	10,769.88	582.69	11,352.57	4,242.65
2	CSPGCL Stations	20,077.49	13,327.51	6,722.70	20,050.21	27.28
3	Biomass	686.28	-	686.28	686.28	-
4	Solar	571.60	-	571.60	571.60	-
5	Hydel and Other RE sources	94.05	-	94.05	94.05	-
6	Concessional Power	1,530.87	-	1,530.87	1,530.87	-
7	Short Term Purchase	-	124.49	-	124.49	(124.49)
<b>8</b>	<b>Total Energy purchase at Generator End</b>	<b>38,555.53</b>	<b>24,221.87</b>	<b>10,188.20</b>	<b>34,410.08</b>	<b>4,145.45</b>
9	Less: Inter State Transmission Losses	482.54	333.24	18.03	351.27	131.27
10	Less: Input to Distribution at 33 kV	150.75	-	150.75	150.75	-
<b>11</b>	<b>Gross Energy Purchase at State Periphery</b>	<b>37,922.23</b>	<b>23,888.64</b>	<b>10,019.42</b>	<b>33,908.06</b>	<b>4,014.18</b>
12	Less: Sale to Power to Telangana State	6,159.09	-	6,159.09	6,159.09	-
<b>13</b>	<b>Net Energy Purchase at State Periphery (A)</b>	<b>31,763.14</b>	<b>23,888.64</b>	<b>3,860.33</b>	<b>27,748.97</b>	<b>4,014.18</b>

From the above table, it is observed that surplus energy available has been projected as surrendered. The weighted average cost of surrendered energy is estimated at Rs. 2.99/kWh.

#### **Annual Fixed Cost and Variable Cost**

Regarding the purchase from Central generating Stations, CERC Orders for Annual Fixed Cost for FY 2020-21 are not available and are likely to be issued during FY 2020-21. Hence, the Commission has considered the Annual fixed cost as submitted by CSPDCL.

Regarding purchase from State generating stations, the Commission has considered the revised Annual Fixed Charges (AFC) with respect to AFC as approved in MYT Order. The cost of power supplied by Marwa power plant which shall be sold to Telangana has been considered inclusive of trading margin of 7 paise /kWh.

The Commission had estimated the purchase of concessional power at a weighted average rate of Rs. 1.60/kWh for the year 2017-18, pending determination of tariff. For the subsequent years i.e. FY 2018-19, FY 2019-20, the same rate has been continued. However, meanwhile, the Commission, has determined tariff in respect of concessional power of majority of generators. It is, therefore, clarified that for the generators whose tariff has been so determined, energy charges for FY 2020-21 shall be billed at the latest tariff determined by the Commission. For others whose tariff is yet to be determined by the Commission, the energy charges shall be billed at the rate of Rs. 1.60/kWh.

Further, the Government of India has announced Atmanirbhar Bharat special economic and comprehensive package on May 13, 2020, wherein liquidity infusion of Rs. 90,000 Cr. is to be given to distribution licensees against receivables and loans against State Government Guarantees for discharging liabilities to Central Sector power utilities. Further, the Ministry of Power, vide letter No. 11/16/2020-Th-II dated 15<sup>th</sup> & 16<sup>th</sup> May 2020, directed that all Central Public Sector Generation Companies and Central Sector Public Transmission Company may consider to offer rebate of about 20-25% on power supply billed (fixed cost) and inter-State transmission charges, and deferment of fixed charges for power not scheduled without interest, etc. The Commission has considered the impact of such estimated rebate as Rs. 113.43 Cr., while considering power purchase cost for FY 2020-21.

#### **RPO Obligation and REC Purchase**

The RPO percentage has been considered in accordance with the CSERC (RPO and REC Framework Implementation) Regulations, 2016 notified on December 1, 2016. The following RPO percentage is applicable to the quantum of sales to LV, HV and EHV categories for CSPDCL in FY 2020-21:

<b>Year</b>	<b>Solar</b>	<b>Non-Solar</b>	<b>Total</b>
FY 2020-21	5.00%	8.00%	13.00%

To meet the RPO target the shortfall in Solar and Non-solar RE purchase shall be met through purchase of Renewable Energy Certificates (RECs) at the floor rates of Rs. 1.00 per kWh and for Solar and Non-solar REC each. The REC Purchase has been estimated as under:

**Table 7-34: REC Purchase as approved by Commission for FY 2020-21**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2020-21</b>
1	Energy Input (MU)	27,067.25
2	Solar Obligation	1,353.36
3	Solar Purchase	544.23
4	Gap in Solar Obligation	809.14
5	Non-Solar Obligation	2,165.38
6	Non-Solar Purchase	1,194.35
7	Gap in Non-Solar Obligation	971.03
8	Total Purchase to be met through REC	1,780.16
<b>9</b>	<b>Cost of REC Purchase at Rs. 1 per REC</b>	<b>178.02</b>

### **Short-term power purchase**

The Commission has estimated the quantum of short-term power purchase requirement at 124.49 MU with a weighted average rate of Rs. 3.00/kWh for FY 2020-21. However, the ceiling price has been estimated at Rs. 3.89/kWh keeping in view the weighted average rate of short-term power purchase for FY 2019-20. Therefore, it is clarified that any short-term power purchase by CSPDCL beyond this estimated quantum and ceiling rate shall require approval of the Commission.

### **Transmission Charges**

The Inter-State Transmission charges have been considered as submitted by CSPDCL. The Commission has considered the revised Annual Transmission Charges and SLDC Charges for FY 2020-21 with respect to charges approved in earlier Section of this Order.

The summary of power purchase cost as submitted by CSPDCL and approved by the Commission in this Order, is shown in the Table below:

**Table 7-35: Power Purchase Cost estimated by Commission for FY 2020-21**

Sr. No.	Particulars	MYT Order			CSPDCL Petition			Approved by the Commission		
		Purchase Quantum (MU)	Total Cost (Rs cr.)	Rs. /kWh	Purchase Quantum (MU)	Total Cost (Rs cr.)	Rs. /kWh	Purchase Quantum (MU)	Total Cost (Rs cr.)	Rs. /kWh
<b>1</b>	<b>Central Generating Stations</b>	<b>15,770.50</b>	<b>4,874.53</b>	<b>3.09</b>	<b>15,810.65</b>	<b>5,748.51</b>	<b>3.64</b>	<b>11,352.57</b>	<b>3,753.34</b>	<b>3.31</b>
a	NTPC	14,354.53	4,413.46	3.07	14,930.65	5,344.96	3.58	10,745.10	3,537.91	3.29
b	NTPC - SAIL (NSPCL)	322.76	131.20	4.06	297.31	165.19	5.56	24.78	61.99	
c	NPCIL	787.94	225.79	2.87	568.74	235.20	4.14	568.74	235.20	4.14
d	Others	305.27	104.07	3.41	13.95	3.17	2.27	13.95	3.17	2.27
e	Less: Rebate in AFC on account of COVID-19	-	-	-	-	-	-	-	(84.92)	-
<b>2</b>	<b>State Generating Stations</b>	<b>14,190.70</b>	<b>3,970.20</b>	<b>2.80</b>	<b>20,077.49</b>	<b>7,029.54</b>	<b>3.50</b>	<b>20,050.21</b>	<b>6,698.37</b>	<b>3.34</b>
a	CSPGCL – Thermal	14,093.78	3,924.69	2.78	19,704.37	6,956.18	3.53	19,677.08	6,627.88	3.37
b	CSPGCL – Renewables	96.92	45.51	4.70	373.13	73.36	1.97	373.13	70.49	1.89
<b>3</b>	<b>Short Term Purchase</b>	<b>3,126.59</b>	<b>1,094.31</b>	<b>3.50</b>	<b>339.13</b>	<b>57.56</b>	<b>1.69</b>	<b>124.49</b>	<b>37.35</b>	<b>3.00</b>
<b>4</b>	<b>Concessional Power - Through CSPTrdCL</b>	<b>2,154.96</b>	<b>410.39</b>	<b>1.90</b>	<b>1,530.87</b>	<b>244.94</b>	<b>1.60</b>	<b>1,530.87</b>	<b>244.94</b>	<b>1.60</b>
<b>5</b>	<b>Others – Renewables</b>	<b>2,180.31</b>	<b>1,205.95</b>	<b>5.53</b>	<b>1,351.93</b>	<b>1,056.89</b>	<b>7.82</b>	<b>1,351.93</b>	<b>1,006.70</b>	<b>7.45</b>
a	Biomass	1,265.54	696.05	5.50	686.28	421.38	614	686.28	421.38	6.14
b	Solar	350.09	227.56	6.50	571.60	371.10	649	571.60	371.10	6.49
c	Hydel/Other RE	564.68	282.34	5.00	94.05	36.21	385	94.05	36.21	3.85
d	Solar & Non-Solar RECs					228.21			178.02	
<b>6</b>	<b>Transmission Charges</b>	<b>-</b>	<b>1,407.95</b>	<b>-</b>	<b>-</b>	<b>1,669.91</b>	<b>-</b>	<b>-</b>	<b>1,589.87</b>	<b>-</b>
a	Interstate Transmission Charges	-	341.63	-	-	603.93	-	-	603.93	-
b	Intrastate Transmission Charges	-	1,049.02	-	-	1,049.02	-	-	1,002.42	-
c	CSLDC Charges	-	16.96	-	-	16.96	-	-	13.71	-
d	Less: Rebate in AFC on account of COVID-19	-	-	-	-	-	-	-	(30.20)	-
<b>7</b>	<b>Gross Power Purchase Cost</b>	<b>37,326.15</b>	<b>12,946.12</b>	<b>3.47</b>	<b>39,110.08</b>	<b>15,807.17</b>	<b>4.04</b>	<b>34,410.08</b>	<b>13,330.57</b>	<b>3.87</b>
8	Less: Sale to Telangana	931.15	311.94	3.35	6,145.12	2,580.95	4.20	6,159.09	2,515.08	4.08
9	Less: Sale of Surplus Power		48.99		3,139.50	809.99	2.58	-	-	-
<b>10</b>	<b>Net Power Purchase Cost</b>	<b>36,395.00</b>	<b>12,585.19</b>	<b>3.46</b>	<b>29,825.45</b>	<b>12,416.22</b>	<b>4.16</b>	<b>28,250.99</b>	<b>10,815.48</b>	<b>3.83</b>

**Note:** The source-wise details of energy purchase/surrender and power purchase cost is provided in Annexure-IV and Annexure-V respectively.



The Commission is of view that the quantum and rate of power approved by the Commission is only for the purpose of power purchase and energy balance. The same should not be construed as Commission's approval for procurement of power on long-term basis.

The Commission has taken note of the extraordinary situation arising out of COVID-19 pandemic lockdown imposed by the Government. The Commission feels that revival of economy may take some time and the actual demand of power for FY 2020-21 may fall short of our estimation. In fact, it is extremely difficult to arrive at an approximation in this regard. In the light of the aforesaid, the Commission is of the view that it would be prudent on the part of CSPDCL to surrender the surplus high-cost committed power to be procured under long-term power purchase agreements than to sell the same in the market which is likely to fetch a relatively low price of approximately Rs. 2.50/kWh. However, it is clarified that this strategy is by way of suggestion only and could undergo change depending on the changing circumstances. Therefore, the CSPDCL is advised to carefully plan the best course available to deal with the surplus power i.e. whether it should be surrendered or sold in the market, after assessing its day to day requirement and market conditions. In so doing, it should be ensured that the burden of fixed cost on the consumers of the State is reduced.

The Commission also observes that CSPDCL has sufficient contracted generation capacity to meet its load/demand and purchase from short-term power has been considered based on conservative estimation. However, in case of any exigency or for commercial considerations, CSPDCL may go for purchase of short-term power through competitive bidding in a judicious and economical manner, after following the procedure as specified in Regulations notified by the Commission and also resort to Demand Side Management Practices to maintain its commercial viability.

In view of the above, the Commission approves net power purchase cost of Rs. 10,815.48 Cr. for FY 2020-21.

## **7.6 O&M Expenses**

As discussed in earlier Section of this Order, O&M expenses for CSPDCL has been revised by considering the applicable CPI and WPI Indices for respective years. The revised O&M Expenses approved by the Commission for FY 2020-21 are shown in the following Table:

**Table 7-36: Revised O&M Expenses for CSPDCL for FY 2020-21**

Particulars	FY 2020-21	
	MYT Order	Revised Approved
Employee Expenses	1,061.67	900.97
A&G Expenses	176.10	143.27
R&M Expenses	163.66	133.15
Interim Wage Relief	76.38	76.38
<b>Total O&amp;M Expenses</b>	<b>1,477.81</b>	<b>1,253.77</b>

The Commission in order dated 03/03/2020 passed in petition no.14/2020 regarding extension of distribution system in areas affected by Atal Jyoti feeder segregation scheme has held as under:-

*"Extension of distribution system as proposed by CSPDCL must be undertaken with immediate effect. For this purpose, expenditure of Rs. 24.26 cr. as estimated by CSPDCL is approved. This amount shall be considered as additional O&M expenses in ARR of 2020-21."*

The Commission has not made any provisions for the above expenditure in this order. However, the amount spent to construct the above extension of distribution system shall be allowed as per actual in O&M expenses during true-up of FY 2020-21.

## **7.7 Interest on Working Capital**

### **CSPDCL's Submission**

CSPDCL has considered one month of the approved O&M Expenses, Maintenance spares @ 40% of Repair and Maintenance expenses and receivables equivalent to one month of receivables equal to 1 month of expected revenue from sale of power for computing the working capital requirement. Further, it has considered the interest rate of 12.45% (8.95% - SBI-PLR Base Rate on 30<sup>th</sup> September 2018 plus 350 basis points) for computing the Interest on Working Capital. Accordingly, CSPDCL submitted the net income of Rs. 143.24 cr. on account of interest on Working Capital for FY 2020-21.

Further, on the basis of stated position for working capital requirement, CSPDCL has not claimed any amount under interest on working capital.

### Commission's View

The normative IoWC has been computed in accordance with the CSERC MYT Regulations, 2015. The Commission has considered the revised normative O&M expenses for computing the working capital requirement. The rate of interest has been considered as 12.45% for FY 2020-21. Since, the Consumer Security Deposit is more than normative working capital requirement, expenses towards IoWC for FY 2020-21 works out as negative as shown in the Table below:

**Table 7-37: Revised O&M Expenses for CSPDCL for FY 2020-21**

Sr. No.	Particulars	FY 2020-21	
		CSPDCL's Petition	Revised Approved
1	Operation and Maintenance Expenses for one month	82.97	98.12
2	Maintenance spares @ 40% of Repair and Maintenance expenses	50.09	53.26
3	Receivable equal to 1 month of expected revenue from sale of power	1,213.01	1,151.06
4	<b>Total Working Capital</b>	1,346.07	1,302.44
5	Less: Security Deposit	2,496.58	2,226.58
6	<b>Net Working Capital Requirement</b>	(1150.51)	(924.14)
7	SBI Base rate Plus 350 basis points	12.45%	12.45%
8	<b>Interest on Working Capital requirement</b>	(143.24)	(115.06)

### 7.8 Revised Aggregate Revenue Requirement for FY 2020-21

Based on the above, the ARR approved by the Commission for FY 2020-21 is shown in the Table below:

**Table 7-38: ARR approved for CSPDCL for FY 2020-21(Rs. Cr.)**

Sr. No	Particulars	FY 2020-21		
		MYT Order	CSPDCL Petition	Approved
<b>A</b>	<b>Power Purchase Expenses</b>	<b>12,897.12</b>	<b>12,174.40</b>	<b>10,815.48</b>
1	<i>Power Purchase Cost (Net of UI, Bilateral Sale, DPS, GBI, Transmission &amp; SLDC Charges and Trading Income, Reversal)</i>	11,489.17	10,504.49	9,225.61
2	<i>Interstate Transmission charges (PGCIL)</i>	341.63	603.93	573.74
3	<i>Intrastate Transmission Charges</i>	1,049.02	1,049.02	1,002.42
4	<i>CSLDC Charges</i>	16.96	16.96	13.71
<b>B</b>	<b>Operation &amp; Maintenance Expenses</b>	<b>1,900.32</b>	<b>1,900.32</b>	<b>1,676.28</b>
1	<i>Net Employee Expenses</i>	1,061.67	1,061.67	900.97
2	<i>Net Administrative and General Expenses</i>	176.10	176.10	143.27
3	<i>Net Repair and Maintenance charges</i>	163.66	163.66	133.15
4	<i>Terminal Benefits (Pension &amp; Gratuity)</i>	422.51	422.51	422.51
5	<i>Interim Wage Relief</i>	76.38	76.38	76.38
<b>C</b>	<b>Interest &amp; Finance Expenses</b>	<b>222.55</b>	<b>292.79</b>	<b>107.49</b>
1	Interest on Loan	90.51	160.75	90.51
2	Interest on Security Deposit	132.04	132.04	132.04
3	Interest on Working Capital	-	-	(115.06)
<b>D</b>	<b>Other Expenses</b>	<b>432.86</b>	<b>407.76</b>	<b>432.86</b>
1	Depreciation	168.92	160.18	168.92
2	Return on Equity	263.94	247.58	263.94
<b>F</b>	<b>Less: Non-Tariff Income</b>	<b>545.22</b>	<b>545.22</b>	<b>545.22</b>
1	<i>Non-Tariff Income</i>	441.53	441.53	441.53
2	<i>Wheeling Charges, Open Access &amp; Cross Subsidy Charges</i>	103.69	103.69	103.69
<b>G</b>	<b>Annual Revenue Requirement</b>	<b>14,907.63</b>	<b>14,230.05</b>	<b>12,486.90</b>

## 7.9 Revenue at existing tariff

### CSPDCL's Submission

CSPDCL submitted that it has computed Revenue from Sale of Power for FY 2020-21 based on the tariff determined by the Commission for FY 2019-20. CSPDCL has

estimated the Revenue from sale of electricity at existing tariff as Rs. 14,556.14 Cr..

### **Commission's View**

The Commission has estimated the revenue sale of electricity as Rs. 13,731.06 Cr., on the basis of the prevailing tariff and applicable terms and conditions as specified in the Tariff schedule for each consumer category, and the category-wise sales projected by the Commission, as discussed earlier.

#### **7.10 Standalone Revenue Gap/(Surplus)**

Based on the estimation of ARR and Revenue at existing tariff, the standalone revenue gap/surplus for FY 2020-21 approved by the Commission is shown in the table below:

**Table 7-39: Standalone Revenue Deficit/(Surplus) for CSPDCL (Rs. Cr.)**

<b>Sr. No.</b>	<b>Particulars</b>	<b>FY 2020-21</b>	
		<b>CSPDCL Petition</b>	<b>Approved</b>
1	Annual Revenue Requirement	14,230.05	12,486.90
2	Income from sale of Power at Existing Tariff	14,556.14	13,731.06
<b>3</b>	<b>Standalone Deficit/(Surplus)</b>	<b>(326.09)</b>	<b>(1,244.17)</b>

## 8 TARIFF PRINCIPLES AND TARIFF DESIGN

### 8.1 Cumulative Revenue Gap/(Surplus) for FY 2020-21

#### CSPDCL's Submission

CSPDCL submitted that there is net standalone revenue surplus of Rs. 326.09 Cr. in FY 2020-21. However, considering the net revenue gap of Rs. 3,559.17 Cr. carried forward after final true-up for FY 2017-18 and provisional true-up for FY 2018-19, there is an overall net revenue gap of Rs. 3,233.07 Cr. in FY 2020-21.

#### Commission's View

The Commission notes that in the revised ARR for FY 2020-21, CSPDCL has not factored in the impact of the Revenue Gap/(Surplus) of CSPGCL, CSPTCL and CSLDC, arising after final true-up for FY 2017-18 and FY 2018-19. The Commission has adjusted the revenue gap/(surplus) of CSPDCL, CSPGCL, CSPTCL and CSLDC after final true-up for FY 2017-18 and FY 2018-19 including carrying/(holding) cost, as approved in earlier chapters of this order, The cumulative revenue gap approved by the Commission for CSPDCL, after considering all the above Revenue Gap/(Surplus) of CSPDCL, CSPGCL, CSPTCL, and SLDC, is as shown in the Table below:

**Table 8-1: Cumulative Revenue Deficit/(Surplus) for CSPDCL (Rs. Cr.)**

Sr. No.	Particulars	FY 2020-21	
		CSPDCL Petition	Approved
1	Annual Revenue Requirement (A)	14,230.05	12,486.90
2	Income from sale of Power at Existing Tariff (B) and existing terms and condition of tariff	14,556.14	13,731.06
3	<b>Standalone Deficit/(Surplus) (C)=(A-B)</b>	<b>(326.09)</b>	<b>(1,244.17)</b>
4	Deficit/(Surplus) carried forward from final true-up of FY 2017-18 and FY 2018-19 for CSPGCL (D)	-	(225.51)
5	Deficit/(Surplus) carried forward from final true-up of FY 2017-18 and FY 2018-19 for CSPTCL (E)	-	(53.08)
6	Deficit/(Surplus) carried forward from final true-up of FY 2017-18 and FY 2018-19 for CSLDC (F)	-	3.18
7	Deficit/(Surplus) carried forward from final true-up of FY 2017-18 and provisional true-up for FY 2018-19 for CSPDCL (G)	3,559.17	1,716.64
8	Carrying cost on Deficit/(Surplus) for CSPDCL for recovery during FY 2020-21 (H)	-	106.86
9	<b>Cumulative Revenue Gap/(Surplus) I=(C+D+E+F+G+H)</b>	<b>3,233.07</b>	<b>303.92</b>

**Thus, the Commission has determined a cumulative Revenue Gap of Rs. 303.92 cr. for FY 2020-21. The treatment of this Revenue Gap is elaborated in subsequent paragraphs.**

#### **Approach for Tariff for FY 2020-21**

The Commission notes that the State of Chhattisgarh is in a state of lockdown because of the COVID-19 pandemic. The Commission is conscious of the difficult conditions, which the country and the State are going through. The Government of India has itself declared the prevailing situation as a force majeure event. The Commission appreciates that most industrial and commercial establishments have been shut down due to lockdown conditions. The prime function of the Commission is to protect the interest of the consumer and at the same time ensuring recovery of cost by the utilities.

The present circumstances are unforeseen and unprecedented. It is also true that extraordinary situations require extraordinary solutions. This is a matter of public interest and the Commission deems it fit to provide some relief to consumers and utilities in the State of Chhattisgarh in order to mitigate the difficulties being faced, to some extent, in the context of the all-out efforts to contain the spread of COVID-19 pandemic.

As an immediate measure, the Commission, vide its order dated April 21, 2020, May 1, 2020 and May 6, 2020 in Petition No. 40, 46 & 47 of 2020 respectively, has already provided certain relaxation to generating companies, licensees and consumers in the State of Chhattisgarh, in order to mitigate the impact of COVID-19.

Further, the cumulative Revenue Gap has been determined as Rs. 303.92 Cr. For full recovery of this Gap, the tariff hike of 3% is required, considering the period of recovery from June 2020 to March 2021. However, the Commission is of the view that increase in Tariff in situation of COVID-19 pandemic would not be appropriate. Also, even if the tariff increase is considered, the recovery of such Revenue Gap also depends on energy sales, which also remain affected because of lockdown.

In light of forgoing, in order to mitigate the difficulties being faced by the consumers in the State because of the spread of COVID-19 pandemic, the Commission decides to continue with the existing Tariff approved for FY 2019-20 vide Order dated February 28, 2019.

Further, the Commission has rationalised the scheme of load factor rebate for HT Steel Industries, which has been discussed in subsequent paragraphs of this Chapter.

Accordingly, the Average Cost of Supply (ACoS) approved by the Commission for FY 2020-21 is shown in the Table below:

**Table 8-2: Average Cost of Supply (Rs./kWh) for CSPDCL for FY 2020-21**

Sr. No.	Particulars	FY 2020-21	
		CSPDCL Petition	Approved
1	Annual Revenue Requirement for FY 2020-21	14,230.05	12,486.90
2	Deficit/(Surplus) carried forward from final true-up of FY 2017-18 and FY 2018-19 for CSPGCL	-	(225.51)
3	Deficit/(Surplus) carried forward from final true-up of FY 2017-18 and FY 2018-19 for CSPTCL	-	(53.08)
4	Deficit/(Surplus) carried forward from final true-up of FY 2017-18 and FY 2018-19 for CSLDC	-	3.18
5	Deficit/(Surplus) carried forward from final true-up of FY 2017-18 and provisional true-up for FY 2018-19 for CSPDCL	3,559.17	1,716.64
6	Carrying cost on Deficit/(Surplus) for CSPDCL for recovery during FY 2020-21	-	106.86
<b>7</b>	<b>Total ARR (Sum of 1 to 6)</b>	<b>17,789.08</b>	<b>14,034.98</b>
8	Income from sale of power at existing tariff and existing terms and condition of tariff	14,556.14	13,731.06
9	Standalone Revenue Gap/(Surplus) (8-1)	(326.09)	(1,244.17)
<b>10</b>	<b>Cumulative Revenue Gap/(Surplus) (8-7)</b>	<b>3,233.07</b>	<b>303.92</b>
11	Income from sale of Power at existing Tariff and revised terms and condition of tariff		13,812.76
<b>12</b>	<b>Regulatory Asset /Revenue Gap after considering existing tariff and revised terms and condition of tariff(11-7)</b>		<b>222.22</b>
13	ARR allowed		13,812.76
14	Total estimated sales		23,288.22
15	Stand alone cost of supply (1/14)		5.36
16	Cost of supply after considering deficit (7/14)		6.03
<b>17</b>	<b>Adjusted Average Cost of Supply (13/14)</b>		<b>5.93</b>

**As discussed in above Table, the Commission has created Regulatory Asset of Rs. 222.22 Cr., which will be allowed to be recovered in next year.**

Further, the Commission notes that it has approved Return on Equity for FY 2020-21 at 15.5% for CSPGCL, CSPTCL and CSLDC and at 16% for CSPDCL. The return on equity is nothing but the regulatory profit approved by the Commission in the present MYT framework. It is also noted that Central Sector Power companies have also provided relief to their consumers and taken a hit on their returns. The Commission is



of the view that it may not be prudent to allow the power utilities in the State to avail returns at such higher rate, keeping in view the severe difficulties being faced by the consumers because of COVID-19 pandemic. Hence, the reduction in rate of return is required to be considered for State Utilities. Accordingly, the Commission shall, at the time of truing up for FY 2020-21, consider the reduced rate of return for approving the Return on Equity.

## 8.2 Voltage-wise Cost of Supply for FY 2020-21

### CSPDCL's submission

CSPDCL in its Petition has not submitted the details of Voltage-wise Cost of Supply (VCoS) for FY 2020-21. The Commission sought VCoS for FY 2020-21 from CSPDCL. CSPDCL submitted the following voltage-wise cost of supply for FY 2020-21:

**Table 8-3: Voltage-wise Cost of Supply for FY 2020-21 as submitted by CSPDCL**

Sr. No	Particulars	2020-21			
		EHV	33 kV	11 kV and LV	Total
1	Energy Sales (MU)		8,014.18	12,596.05	20,610.22
2	Distribution Loss (%)		4.85%	22.53%	16.50%
3	Distribution Loss (MU)		408.50	3,664.18	4,072.68
4	Energy input at 33 kV (MU)		8,422.68	16,260.22	24,682.90
5	Energy input to discom level (MU)		51.10	98.65	149.75
6	Net input at 33 kV Level (MU)		8,371.58	16,161.57	24,533.15
7	EHV Sales (MU)	3,638.04			
8	Energy requirement for Distribution (MU)	3,638.04	8,371.58	16,161.57	28,171.19
9	Transmission Loss (%)	3.22%	3.22%	3.22%	
10	Energy requirement at G<>T Interface (MU)	3,759.09	8,650.11	16,699.29	29,108.48
11	Avg. Power Purchase Cost Rate (Rs. /kWh)	4.18	4.18	4.18	
12	Power Purchase Cost (Rs. Cr.)	1,572.21	3,617.84	6,984.35	12,174.40
13	Other Cost (Rs. Cr.)	265.47	610.87	1,179.31	2,055.65
14	Gap Cost for only for FY 17 including Past Gaps as per latest petition (Rs. Cr.)	459.63	1,057.67	2,041.86	3,559.17
15	Total Cost (Rs. Cr.)	2,297.31	5,286.39	10,205.52	17,789.22
16	Energy Sales (MU)	3,638.04	8,014.18	12,596.05	24,248.27
17	<b>Voltage Wise Cost of Supply (Rs. /kWh)</b>	<b>6.31</b>	<b>6.60</b>	<b>8.10</b>	<b>7.34</b>

### **Commission's View**

The Commission has computed VCoS for FY 2020-21 as per the methodology adopted in Tariff Order for FY 2018-19, after taking into account the ruling of the Hon'ble APTEL in its Judgment dated March 24, 2015 in Appeal No. 103 of 2012, on the issue of determination of tariff and cross-subsidy with reference to the VCoS.

The Commission notes that at present, the voltage-wise losses available are based on certain assumptions. The actual voltage-wise losses would be available only after the studies carried out by CSPDCL. In view of the above, the Commission determines the VCoS on the basis of available data.

Further, the framework prescribed by the Hon'ble APTEL requires that the category-wise tariffs be determined on the basis of ACoS as well as VCoS, and also the tariffs for all categories should be within  $\pm 20\%$  of the overall ACoS for the Distribution Licensee. The Commission feels that in the absence of a realistic assessment of the voltage-wise losses, the determination of VCoS may lead to incorrect conclusions. However, the Hon'ble APTEL has directed that the tariffs and cross-subsidies have to be determined keeping in view the VCoS, while ensuring that the tariffs are within  $+20\%$  of ACoS. Further, there is no denying that the cost of supply at higher voltages, i.e., 220 kV, 132 kV, etc., will be lower than the cost of supply at lower voltages, i.e., LT, 11 kV, etc., on account of the lower distribution losses at higher voltages and non-utilisation of the assets at lower voltages for supplying electricity to the consumers at higher voltages.

Hence, in this Order, the Commission has determined category-wise tariffs on the basis of ACoS, while at the same time moving towards the philosophy that the tariffs for the consumers taking supply at higher voltages is lower than that for consumers taking supply at lower voltages. However, due to historical reasons, this objective cannot be achieved immediately, and hence, gradual movement initiated in the MYT Order has been carried forward in this Order.

The VCoS for FY 2020-21, as estimated by the Commission based on approved ARR and available data, is given in the Table below:

**Table 8-4: VCoS for FY 2020-21 as calculated by Commission**

Sr. No.	Particulars	FY 2020-21			
		EHV	33 kV	11 kV and LV	Total
1	Energy Sales (MU)	-	7,294.02	12,545.87	19,839.89
2	Distribution Loss (%)	-	4.85%	21.36%	16.00%
3	Energy input at 33 kV (MU)	-	7,665.81	15,953.11	23,618.92
4	Less: Direct Input to Distribution at 33/11 kV by CGPs and IPPs (MU)		69.93	80.82	150.75
5	Energy input to Discom level (MU)		7,595.88	15,872.28	23,468.17
6	EHV Sales (MU)	3,448.33	-	-	3,448.33
7	Energy requirement for Distribution (MU)	3,448.33	7,595.88	15,872.28	26,916.50
8	Transmission Loss (%)	3.00%	3.00%	3.00%	3.00%
9	Energy requirement at G<>T Interface (MU)	3,554.98	7,830.81	16,363.18	27,748.97
10	Avg. Power Purchase Cost Rate (Rs. /kWh)	3.32	3.32	3.32	3.32
11	Power Purchase Cost (Rs. Cr.)	1,181.91	2,603.48	5,440.21	9,225.61
12	Other Cost (Rs. Cr.)	417.81	920.34	1,923.13	3,261.28
13	Past revenue gaps (Rs. Cr.)	169.86	374.16	781.85	1,325.87
14	Total Cost (Rs. Cr.)	1,769.58	3,897.99	8,145.19	13,812.76
15	Energy Sales (MU)	3,448.33	7,294.02	12,545.87	23,288.22
16	<b>Cost of Supply (Rs. /kWh)</b>	<b>5.13</b>	<b>5.34</b>	<b>6.49</b>	<b>5.93</b>

### 8.3 Tariff Proposal for FY 2020-21

#### CSPDCL's Submission

The Commission notes that CSPDCL has not submitted any retail supply tariff proposal for FY 2020-21. Moreover, in response to query of the Commission regarding tariff proposal for FY 2020-21, CSPDCL submitted that the submissions made under letter number 02/02/RAC/2978 dated February 20, 2020 may kindly be considered as its proposal for retail tariff.

CSPDCL further submitted that, it would like to propose continuation of existing tariff structure of LT/HT consumers with uniform hike in energy charges across all consumer categories to meet relevant gap as it may be approved by the Commission after prudence check.

#### Commission's View

As discussed earlier, the Commission has decided to continue with the tariff approved for FY 2019-20 in its order dated February 28, 2020.

The approach of the Commission for Tariff applicability and other terms and conditions of the Tariff for various consumer categories is discussed below:

***Load Factor Rebate HV-4: Steel Industries***

The Commission vide Public Notice dated 13.03.2020 proposed load factor rebate for HV 4-Steel Industries, wherein it was proposed that load factor rebate shall be given on energy charges for additional energy consumption over and above lower limit of 60%, instead of on the total energy consumption as per the Tariff Order for FY 2019-20. It is noted that many of stakeholders, especially Steel Industries and its Associations have objected to this proposal of the Commission.

Further, the Commission has analysed the load factor data for consumers under this category. The Commission has rationalised the existing scheme of load factor incentive based on consumption pattern of the consumers.

After analyzing the data for past years, based on submissions made by CSPDCL in R-15, it is observed that the revenue realized for 33 kV consumers in this category is less than Average Cost of Supply approved for the same year, as shown in the following Table:

**Table 8-5: Revenue Realised for HV Steel Industries**

Sr. No.	Particulars	FY 2017-18	FY 2018-19	FY 2019-20
		(Actual)	(Actual)	(Provisional)
<b>For 33 kV Steel Industries, excluding Bastar Sarguja Vikas area</b>				
1	Energy Sales (MU)	4111.78	4327.94	4416.72
2	Load Factor Rebate availed (Rs. Cr.)	168.44	258.86	288.27
3	Total Revenue Realised (Rs. Cr.)	2566.82	2555.50	2688.47
4	Average Revenue Realised (Rs./kWh)	6.24	5.90	6.09
5	Average Revenue Realised, excl. Load Factor Rebate (Rs./kWh)	6.65	6.50	6.74
6	ABR approved for category (Rs./kWh)	7.00	7.14	7.31
7	Average Cost of Supply approved for the year (Rs./kWh)	6.41	6.20	6.07

From the above Table, it is noted that actual revenue realized for 33 kV consumers is lower not only than ABR approved for the category but also than Average Cost of Supply for FY 2017-18 and FY 2018-19. Hence, there is need to rationalize the mechanism for Load Factor rebate.

As regards the Load Factor Incentive applicable for HT Steel Category, the Commission in previous Tariff Order (for FY 2019-20) has reduced the lower limit for availing Load Factor Rebate from 65% to 63%, which in turn also reduced the

limit for availing maximum rebate from 79% to 77%. This has helped the consumers to avail maximum rebate for lower load factor.

On the other hand, HT Steel industries contribute around 36% of revenue of CSPDCL. The Commission, under the provisions of the Act, is bound to protect the interest of consumers balancing the interest of utilities. Hence, in the present Order, the Commission has capped the load factor rebate at 8%, which is to be achieved at 70 % Load Factor. The limit of load factor rebate has been rationalized with a view so as the Average Billing Rate for this consumer category is close to Average Cost of Supply of electricity.

The Load factor incentive applicable for FY 2020-21 is shown in the following Table:

<b>Monthly Load Factor (LF)</b>	<b>Rebate</b>
63% - 63.99%	rebate of 1% on normal Energy Charge calculated on entire energy consumption
64% - 64.99%	rebate of 2% on normal Energy Charge calculated on entire energy consumption
65% - 65.99%	rebate of 3% on normal Energy Charge calculated on entire energy consumption
66% - 66.99%	rebate of 4% on normal Energy Charge calculated on entire energy consumption
67% - 67.99%	rebate of 5% on normal Energy Charge calculated on entire energy consumption
68% - 68.99%	rebate of 6% on normal Energy Charge calculated on entire energy consumption
69% - 69.99%	rebate of 7% on normal Energy Charge calculated on entire energy consumption
70% - and above	rebate of 8% on normal Energy Charge calculated on entire energy consumption

Provided that in case the monthly Load Factor is 62.99% or below, then no Load Factor Rebate shall be payable in that month:

Provided further that flat 30 hours per month of power-off (non-supply) shall be considered for calculation of Load Factor:

Provided also that the Load Factor Rebate shall not be payable on the excess energy consumed corresponding to exceeding contract demand for that billing month:

Provided also that the monthly Load Factor shall be rounded off to the lowest integer.

***Terms and Conditions of Tariff for Other Consumer categories.***

In addition to the above, the Commission has proposed the following changes after considering the suggestions and objections made by Stakeholders:

- (a) The hospitals run by charitable trusts, which avail supply at high voltage level shall now be covered under HV-6 category, which is having a comparatively lower tariff.
- (b) Hospitals in the HV-3 tariff category shall be entitled for a discount of 5% on Energy Charges.
- (c) Private clinics and nursing homes including X-Ray units, diagnostic centres and pathological labs in the LV-2 tariff category shall be entitled for a discount of 5% on Energy Charges.
- (d) Rice mills in the HV-3 tariff category shall be entitled for a discount of 5% on Energy charges
- (e) In case of excess supply to consumers (other than of HV-7 tariff category) having minimum contract demand of 150 MVA, and having captive generating plant(s) of capacity of at least 150 MW, such consumers shall have to pay an additional demand charges of Rs. 20/kVA/month on the quantum of power availed over and above its contract demand notwithstanding anything contained anywhere in this order. Further, energy consumed corresponding to excess supply shall be billed at normal tariff. This provision is intended to remove the difficulties being faced by such consumers in the event of outage of its CGP.

#### **8.4 Wheeling Charges**

##### **CSPDCL's submission**

The Commission notes that CSPDCL in its Petition has not submitted the details of Wheeling Charges for FY 2020-21. The Commission sought proposal for wheeling charges for FY 2020-21 from CSPDCL.

CSPDCL has proposed an allocation matrix for wheeling charges and retail supply, wherein the entire power purchase expenses including transmission charges, interest on CSD, and non-tariff income has been considered as part of the retail supply business, along with 50% of the employee expenses including interim wage relief, 70% of the A&G expenses, 10% of the R&M expenses, 50% of pension payment,

10% of interest expenses, 10% of depreciation, 10% of RoE, and 90% of the interest on working capital.

CSPDCL submitted the following Wheeling Charges for FY 2020-21:

**Table 8-6: Wheeling Charges for FY 2020-21 as submitted by CSPDCL**

<b>Sr. No</b>	<b>Particulars</b>	<b>FY 2020-21</b>
1	Total Energy input to 33 kV distribution system (MU)	24,533.15
2	Distribution cost for wires business (Rs. Cr.)	1,492.06
3	Distribution cost for 33 kV voltage level (assuming 35% of cost at 33kV) (Rs. Cr.)	522.22
<b>4</b>	<b>Wheeling Charges for 33 kV voltage level (paise/kWh)</b>	<b>21.29</b>

### **Commission's View**

The Wheeling Charges have been computed by considering 35% of the total ARR (excluding the power purchase expenses and the interest on Consumer Security Deposit), The total energy requirement at 33 kV has been considered as 23,618.92 MU based on the approved Energy Balance for FY 2020-21.

For long-term, medium-term and short-term Open Access customers, Wheeling Charges shall be Rs. 238/MWh (or Rs. 0.238 per kWh) for the energy computed at 100% load factor for wheeling. The same charges shall be applicable for both collective and bilateral transaction at the point of injection.

Energy losses shall be applicable at the rate of 6% for the energy scheduled for distribution at the point or points of injection at 33 kV side of 33/11 kV sub-station.

### **8.5 Revenue at Approved Tariff**

The revised tariff will be applicable with effect from June 1 2020-21, for the consumers of the State for FY 2020-21. The category-wise revenue at revised tariffs approved in this Order are shown in the Table below:

**Table 8-7: Revenue in FY 2020-21 at Tariffs approved by the Commission**

Sr. No.	Consumer Category	Revenue at proposed Tariff
<b>A</b>	<b>LV Categories</b>	<b>5,868.95</b>
1	Domestic including BPL	2,128.04
2	Non-Domestic (Normal Tariff & Demand Based Tariff)	846.43
3	Agriculture – Metered & Allied Activities	1,885.02
4	LT Industry	361.07
5	Public Utilities	247.35
6	Temporary	401.03
<b>B</b>	<b>HV Categories</b>	<b>7,943.82</b>
1	HV 1: Railway Traction	438.82
2	HV 2: Mines (Coals & others)	538.33
3	HV 3: Other Industry & General-purpose Industry	1727.01
4	HV 4: Steel Industries	4986.73
5	Others	252.92
<b>C</b>	<b>Total Revenue from LV and HV categories</b>	<b>13,812.76</b>

## 8.6 Cross-subsidy

An element of cross-subsidy is inherent in the present and revised tariff structure. The tariffs of different consumer categories in relation to the approved adjusted ACoS of Rs. 5.93 per kWh is such that the tariffs for some categories of consumers are higher than the ACoS while the tariffs for other categories are lower than the ACoS. The Commission has rationalised the cross-subsidy in this Order as shown in the Table below:

**Table 8-8: Cross-subsidy with Existing tariff and Approved tariff**

Consumer Category		Approved in Tariff Order for FY 2019-20		Approved in Tariff Order for FY 2020-21	
		ABR (Rs./kWh)	ABR/AC OS (%)	ABR (Rs./kWh)	ABR/AC OS (%)
<b>LV</b>	Domestic	3.92	65%	3.92	66%
	Non-Domestic	7.77	128%	8.55	144%
	Agriculture	4.79	79%	4.83	81%
	Industry	6.42	106%	6.59	111%
	Public Utilities	6.23	103%	6.38	108%
<b>HV</b>	HV 1: Railway Traction	5.86	97%	4.46	75%
	HV 2: Mines	8.67	143%	8.50	143%
	HV 3: Other Industrial & General Purpose Non-Industrial	8.29	137%	8.42	142%
	HV 4: Steel Industries	7.31	121%	6.84	115%



## 8.7 Cross-Subsidy Surcharge

The Commission has determined the Cross-Subsidy Surcharge (CSS) to be paid by the open access consumers, in accordance with CSERC (Connectivity and Intra-State Open Access) Regulations, 2011:

The approved Cross-Subsidy Surcharge is as under:

- (a) Rs. 1.31 per kWh for 220 kV/132 kV consumers (which is 90% of the computed value of Rs. 1.46 per kWh)
- (b) Rs. 1.14 per kWh for 33 kV consumers (which is 90% of the computed value of Rs. 1.26 per kWh).

For Open Access consumers procuring power from renewable energy-based power generating plant (excluding solar power), the Cross-Subsidy Surcharge payable shall be 50% of the Cross-Subsidy Surcharge determined for that year.

Accordingly, Cross-subsidy Surcharge for renewable energy transactions is as under:

- (a) For 220 kV/132 kV consumers Rs.0.65 per kWh (which is 50% of the computed value of Rs. 1.46 per kWh).
- (b) For 33 kV consumers Rs. 0.57 per kWh (which is 50% of the computed value of Rs. 1.26 per kWh).

In case of a consumer receiving power from Solar power plants through open access, no Cross-Subsidy Surcharge shall be payable.

## 8.8 Parallel Operation Charges

Parallel operation charges payable by captive users and non-captive users shall be governed by the Order dated April 5, 2019 passed in Petition No. 09 of 2018 and its subsequent amendments from time to time.

## 8.9 Applicability of Order

The approved Tariff Schedule for FY 2020-21 is given in **Chapter 11**.

**The Order will be applicable from 1<sup>st</sup> June, 2020 and will remain in force till March 31, 2021 or till the issue of next Tariff Order, whichever is later. The Commission directs the Companies to take appropriate steps to implement the Tariff Order.**

## 9 TARIFF SCHEDULE FOR FY 2020-21

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This Tariff Schedule shall be applicable from June 1, 2020.

The terms and conditions for LV Tariff and HV Tariff shall be read along with relaxation provided by the Commission vide its Order dated 06/05/2020 in petition no. 47 of 2020 or any other order issued from time to time. Relevant portion of the order 47 of 2020 are as given under:

- a) *A moratorium of three billing cycles from April 01, 2020 on payment of fixed charges is provided to the Industrial and Commercial consumer categories, viz., LV 2 Non-Domestic , LV 4 Agriculture Allied Activities, LV 5 Industry, HV 1 Railway Traction, HV 2 Mines, HV 3 Other Industrial and General Purpose Non-industrial and HV 4 Steel Industries. However, this relief shall not be applicable to those consumers who are willing to pay the bills on time.*
- b) *Delayed Payment Surcharge - If the bill is not paid by the consumer within the period prescribed (due date) for payment of the bills falling between April01, 2020 and June 30, 2020, a surcharge @ 1% 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.*

### 9.1 Tariff Schedule for Low Voltage (LV) Consumers

This tariff schedule is applicable to all LV consumers as follows:

- a) Single-phase, 230 Volts up to a maximum connected load of 3 kW, and
- b) Three-phase, 400 Volts for maximum demand up to 112.5 kW in case of demand based tariff or for maximum contracted load of 150HP in case of other tariff, as applicable.

#### 9.1.1 LV-1: Domestic

##### **Applicability**

This tariff is applicable to domestic light and fan and power used for all domestic appliances, in residential premises, orphanages, homes for old/physically challenged people and homes for destitute, dharamshalas, student hostels, working women's hostels, ashrams, offices of National Cadet Core (NCC), public libraries and reading rooms, educational institutions and hospitals (including X-rays, etc.) run by charitable trusts / non-profit organizations / societies registered under the Firms and Societies

Act, homes for differently abled and mentally retarded, de-addiction and rehabilitation centres, Government hospitals/dispensaries, (excluding private clinics and nursing homes), Government Schools, farm houses, mosques, temples, churches, gurudwaras, religious and spiritual institutions, water works and street lights in private colonies and cooperative societies, common facilities such as lighting in staircase, 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, zero waste centre compost unit.

**Tariff:**

Category of Consumers	Units Slab	Fixed Charge (Rupees per kWh)	Energy Charge (Rs. per kWh)	Minimum Fixed Charge
LV-1: Domestic				
Domestic including BPL Consumers	0 -100 units	2.40	1.00	Single Phase Rs. 40/- per month
	101-200 units	2.50	1.10	
	201 - 400 units	3.20	1.70	Three Phase Rs. 120/- per month
	401 – 600 units	3.50	2.00	
	601 and above units	4.85	2.45	

**Notes:**

- i. Fixed Charges and Energy Charges are telescopic. For example, if consumption in any month is 150 units, then for first 100 units, rate of slab 0-100 shall be applicable and for remaining 50 units, rate of slab 101-200 shall be applicable.
- ii. Domestic consumers shall be entitled for subsidy as per State Government Order, and their consumption shall be billed as per tariff LV-1.
- iii. If a portion of the dwelling is used for the conduct of any business other than those stipulated above, the entire consumption shall be billed under Non-domestic tariff LV-2.

### 9.1.2 LV-2: Non-Domestic

#### Applicability

This tariff is applicable to light and fan and power to shops, showrooms, business houses, offices, educational institutions (except those included in LV-1 and LV-5), public buildings, Warehouses, town halls, clubs, gymnasium and health clubs, meeting halls, places of public entertainment, circus, hotels, cinemas, railway stations, private clinics and nursing homes including X-rays plant, diagnostic centres, pathological labs, carpenters and furniture makers, juice centres, hoardings and advertisement services, typing institutes, internet cafes, STD/ISD PCO's, Mobile Towers, coaching centres, FAX/photocopy shops, tailoring shops, photographers and colour labs, laundries, cycle shops, compressors for filling air, toy making industry, nickel plating on small scale, restaurants, eating establishments, Government circuit houses/rest houses, guest houses, marriage gardens, farmhouses being used for commercial purposes, book binders, offset printers, bakery shop, banks, parlours, printing press, computer centre, petrol pumps and service stations, electric charging centres for Vehicles, HV industrial consumers seeking separate independent LV connection in the same premises of HV industrial connection and other consumers not covered under any other category of LV consumers.

#### Tariff:

Category of Consumers	Units Slab	Fixed Charge (Rs per kW of Contracted load/Billing Demand)	Energy Charge (Rs. per kWh)
LV-2.1: Single Phase Non-Domestic- (upto 3 kW)	0 – 100 units	Rs. 50 per kW per month	5.40
	101 - 400 units		6.50
	401 and above units		7.90
LV-2.2: Three Phase Non-Domestic			
(A) Upto 15 kW	0-400 units	Demand Charges- Rs 120/kW/month on billing demand	6.50
	401 and above units		7.80
(B) Above 15 kW	All units	Demand Charges- Rs 180/kW/month on billing demand	7.25

**Note:**

- i. Fixed Charges of LV-2.1 and Demand Charge on contract demand of tariff LV-2.2 is a monthly minimum charge, whether any energy is consumed during the month or not.
- ii. For charging stations of electric vehicles, a flat rate single part tariff of Rs. 5 per unit shall be applicable.
- iii. A discount of 50% on Energy Charges shall be applicable for mobile towers setup after 1<sup>st</sup> April 2019, in left-wing extremism affected districts.
- iv. A discount of 10% on Energy Charges shall be applicable for commercial activities being run exclusively by registered women self-help groups.
- v. A discount of 5% on Energy Charges shall be applicable for private clinics and nursing homes including X-rays plant, diagnostic centres and pathological labs.

**9.1.3 LV-3: L.V. Agriculture****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.

**Tariff:**

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-3: L.V. Agriculture	Rs. 80/HP/month	4.40

The load of 100W is permitted at or near the motor pump set.

**Notes:**

- i. Fixed Charge is monthly minimum charge whether any energy is consumed or not during the month.
- ii. For non-subsidized agriculture pump connection, a concession of 10% on energy charge shall be allowed.

#### 9.1.4 LV- 4: L.V. Agriculture Allied Activities

##### Applicability

This tariff is applicable to pump/tube well connections, other equipment and light and fan for tree plantation, fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture, aquaculture laboratories and milk chilling plant.

##### Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-4.1 (A): Up to 25 HP	Rs. 80per HP per month or Rs. 107per kW per month	4.40
LV-4.1 (B): Above 25 HP up to 150 HP	Rs. 90per HP per month or Rs.121per kW per month	5.20
LV-4.2: Demand based tariff for Contract Demand of 15 to 112.5 kW	Rs. 180per kW per month on billing demand	5.10

##### Note:

- All connections shall be required to maintain average monthly power factor of 0.85 by providing capacitors of suitable rating, failing which they shall be required to pay surcharge of 35 paise per kWh.
- For tariff LV-4.1, Fixed Charge is monthly minimum charge and for tariff LV-4.2 Demand Charge on contract demand is monthly minimum charge, whether any energy is consumed during the month or not.

#### 9.1.5 LV-5: L.V. Industry

##### Applicability

These tariffs are applicable to power, light and fan 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, terracotta, handloom, handicraft, agro-processing units, minor forest produce, laboratories of engineering colleges, ITIs and polytechnics and industrial institutions, aluminium based factory, bakery/biscuit industries, bottling plant, cable/insulation industries, Cement Based Factory, Chemical Plant, Coal Based Industries, Conductor Wire Industries, Cutting &

Polishing Of Marble, Fabrication Workshop, Food Processing Industry, Forest Product based factory, GI Wire Industries, Glass Industries, Hot Mixing Plant, IT based industries, Mineral based factory, Plastic Industries, Plywood factory, Pulverize industries, Rolling Mill, Saw Mill, Stone Crusher, Toy Industries, Wire Drawing / Steel Industries, Wire Product, Registered Women self-help group, workshops and fabrication shop, etc.

**Tariff:**

Category of Consumers		Demand Charge	Energy Charge (Rs. per kWh)
<b>LV-5: L.V. Industry</b>			
<b>5.1</b>	Flour mills, Hullers, power looms, grinders for grinding masalas, terracotta, handloom, handicraft, agro-processing units, minor forest produce up to 25 HP or 18.7 kW	Rs. 65/kW/month on billing demand	3.60
<b>a)</b>	Bastaravem Dakshin Kshetra Adivasi Vikas Pradhikaran, and Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran*	Rs. 65/kW/month on billing demand	3.20
<b>5.2</b>	Other Industries		
<b>5.2.1</b>	Up to 25 HP or 18.7 kW	Rs. 100/kW/month on billing demand	4.75
<b>a)</b>	Bastaravem Dakshin Kshetra Adivasi Vikas Pradhikaran, and Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran*	Rs. 80/kW/month on billing demand	3.75
<b>5.2.2</b>	Above 25 HP up to 150HP (18.7 kW to 112.5 kW)	Rs. 110kW/month on billing demand	5.50
<b>a)</b>	Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran, and Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran*	Rs. 90/kW/month on billing demand	5.00

\*Notified Vide Order dated August 22, 2005

**Notes:**

- i. For tariff LV-5.1 and LV-5.2, Demand Charge on contract demand is monthly minimum charge, whether any energy is consumed during the month or not.

- ii. In order to give impetus to LT industries located in rural areas, a rebate of 5% in energy charges for consumers specified under tariff category shall be allowed for LV industries located in rural areas notified by Government of Chhattisgarh.
- iii. In accordance with the Section 62(3) of EA 2003 providing for differentiation in tariff based on geographical position of any area, a new sub-category created under LV 5.1 and 5.2 has been continued, and considerably lower tariff has been determined for consumers located in the areas covered under "**Bastaravem Dakshin Kshetra Adivasi Vikas Pradhikaran**" (notified vide Order dated August 22, 2005) and "**Sargujaavem Uttar Kshetra Adivasi Vikas Pradhikaran**" (notified vide Order dated August 22, 2005).
- iv. A rebate of 10% on Energy Charges shall be applicable for industrial activities being run exclusively by registered women self-help groups.

#### 9.1.6 LV-6: Public Utilities

##### Applicability

This tariff is applicable to colonies developed by Chhattisgarh State Housing Board and 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.

##### Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-6: Public utilities	Rs. 125/HP/month or Rs. 168/kW/month	5.65

##### Note:

Fixed Charge is monthly minimum charge whether any energy is consumed during the month or not.



### 9.1.7 LV-7: Information Technology Industries

#### Applicability

This tariff is applicable to Information Technology Industries having minimum contract demand of 50 kW.

#### Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)	Minimum Charge
LV-7: Information Technology Industries	Nil	4.50	Rs. 1500/- per month

#### Note:

Minimum Charge is monthly minimum charge whether any energy is consumed during the month or not.

### 9.1.8 LV 8: Temporary Supply

#### Applicability

This tariff is for connections that are temporary in nature. The tariff applicable shall be as given for the respective category of consumer.

Provided that for construction purpose, a consumer shall be given a temporary connection only.

Provided further that for a farmer requiring temporary agriculture pump connection more than once within a period of one year from the date of disconnection of the previous connection, no fresh paper formalities would be required.

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.

#### Tariff:

Fixed Charge and Energy Charge shall be billed at one and half times the normal tariff as applicable to the corresponding consumer categories.

Provided that for Agricultural pump connections, the Fixed Charge and Energy Charge shall be billed at the normal tariff applicable for LV-3 category.

**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.
- 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 para 7.
- vii. Any expenditure made by the Licensee for providing temporary supply up to the point of supply, shall be paid for by the consumer as per prescribed procedure.
- viii. Temporary connections shall not be served unless suitable capacitors, wherever applicable, are installed so as to ensure Power Factor of not less than 0.85 lagging.
- ix. Surcharge at the rate of 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition, from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

**9.1.9 Terms and Conditions of L.V. Tariff**

1. Energy will be supplied to the consumer ordinarily at a single point for the entire premises of the consumer.
2. Contracted Load/Connected Load or Contract Demand/Maximum Demand infraction shall be rounded off to the next whole number.
3. If the bills are not issued consecutively for six months or more for any LT Consumer, billing on accumulated meter reading shall not be raised without approval of Divisional Engineer of CSPDCL.
4. For the purpose of separate independent LV connection to HV Industrial consumer in the same premises of HV industrial connection, to meet out its

essential load during emergency or non-availability of supply in HV connection under LV 2 category, conditions as mentioned in Clause 4.40 of the Chhattisgarh State Electricity Supply Code and its amendment, if any, shall be applicable.

5. For the purpose of Demand Based Tariff (LV-2.2, LV-4.2 and LV-5)
  - i. **Determination of Maximum Demand**- The maximum demand means the highest load measured by sliding window principle of measurement in average kVA or average kW as the case may be at the point of supply of a consumer during any consecutive period of 30 minutes during the billing period.
  - 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, whichever is higher. The billing demand shall be rounded off to the next whole number.
  - iii. **Minimum Charge** – The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

#### **9.1.10 Power Factor Incentive and Surcharge**

- i. Consumers, falling under tariff categories LV-4: LV Agriculture Allied Activities, LV 5- LV Industry, LV 6: Public Utilities and LV-7: Information Technology Industries shall arrange to install suitable low-tension capacitors of appropriate capacity at their cost. The consumer also shall ensure that the capacitors installed by them properly match with the actual requirement of the load so as to ensure average monthly Power Factor of 0.85 or above. A consumer who fails to do so shall be liable to pay Power Factor surcharge @ 35 paise per kWh on the entire consumption of the month.
- ii. All LV non-domestic consumers with Contracted Load of 15 kW or above shall arrange to install suitable Low Tension capacitors of appropriate capacity at their cost. The consumer shall ensure that the capacitors installed by him properly match with the actual requirement of the load so as to ensure average monthly Power Factor of 0.85 or above. A consumer who fails to do so will be liable to pay Power Factor surcharge @ 35 paise per kWh on the entire consumption of the month.
- iii. All LV installations having welding transformer are required to install suitable Low Tension capacitors so as to ensure Power Factor of not less than 0.85. Consumers not

complying with the above shall have to pay Power Factor surcharge of 75 paise per kWh on the entire monthly consumption, provided the load of the welding transformer(s) exceeds 25% of the total connected load.

**Note** - For the purposes of computing the connected load of welding transformers in kW, 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.

- iv. The average monthly Power Factor recorded in the meter shall be considered for billing of Power Factor surcharge or Power Factor incentive, as the case maybe.
- v. Levy of Power Factor surcharge as indicated above, shall be without prejudice to the rights of CSPDCL to disconnect the consumer's installation after issue of 15 days' notice if the average monthly Power Factor remains 0.7 or below for a period of more than two consecutive months. It shall remain disconnected till the consumer makes suitable arrangements to improve the Power Factor.
- vi. Notwithstanding the above, if the average monthly Power Factor of a new consumer is found to be less than 0.85 at any time during the first six months from the date of connection and if he maintains average monthly Power Factor continuously in subsequent three months at not less than 0.85, then the surcharge billed on account of low Power Factor during the said period shall be withdrawn and credited in next month's bill.
- vii. All categories of LV consumers in whose case Power Factor surcharge is applicable; shall also be eligible for Power Factor incentive. Such incentive shall be payable @ 5 paise per kWh on the entire consumption of that month in which he maintains an average monthly Power Factor equal to or above 0.85, payable @ 10 paise per kWh on the entire consumption of that month in which he maintains an average monthly Power Factor equal to or above 0.90 and @ 15 paise per kWh of entire consumption of that month in which he maintains an average monthly Power Factor of 0.95 or above.

### 9.1.11 Provisions of billing in case of Excess Supply

#### 1. For connected load-based tariff

- i. The consumers, except the domestic (LV-1) consumers, availing supply at connected load-based tariff shall restrict their actual connected load within the contracted load. However, in case the actual connected load in any month exceeds the contracted load, the connected load-based tariff shall apply only to the extent of contracted load and corresponding units of energy. The connected load in excess of contracted load and corresponding units of energy shall be treated as excess supply. The excess supply so consumed in any month, shall be charged at the rate of one and half times of the connected load based tariff applicable to the consumer (fixed and energy charges and VCA charges) for the excess connected load to the extent of 20% of contracted load and at the rate of two times of connected load based tariff if the excess connected 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. **Where the recording facility of demand is available, the billing on account of excess supply shall be restricted to the recorded month only.**

#### 2. For Demand Based tariff consumers

Consumers availing supply at demand-based tariff (LV-2.2/LV-4.2/LV-5) should at all times restrict their maximum demand to the contract demand or contracted load whichever is applicable. However, contract demand for the demand-based tariff consumer can be less than connected load. In case the maximum demand in any month exceeds the contract demand, the said demand-based tariff (LV-2.2/LV-4.2/LV-5) 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 and VCA charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand.

For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:

- a) Billing Demand: The demand in excess of the contract demand in any month shall be the billing demand.
- b) Units of Energy: the units of energy corresponding to kW portion of the demand in excess of the contract demand shall be:-

$$EU = TU (1 - CD/MD)$$

Where

EU – denotes excess units,

TU – denotes total units supplied during the month,

CD – denotes contract demand, and

MD – denotes actual maximum demand.

- I. The excess supply availed in any month shall be charged along with the monthly bill and shall be payable accordingly.
- II. The above billing of excess supply at one and half times/two times of the normal tariff shall be applicable to consumers without prejudice to CSPDCL's right to discontinue supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011, as amended from time to time.

### **3. Delayed Payment Surcharge**

If the bill is not paid by the consumer within the period (due date) prescribed for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any, but excluding amount of surcharge), subject to minimum of Rs. 5 shall be payable in addition, from the due date of payment as mentioned in the bill.

### **4. Additional Charges**

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the Local Body receives supply.

**5. Advance Payment Rebate**

For advance payment made before commencement of consumption period for which bill is to be prepared, a rebate @ 0.5% per month on the amount which remains with the Licensee at the end of the calendar month excluding security deposit, shall be credited to the account of consumer after adjusting any amount payable to the Licensee subject to the net amount of advance being not less than Rs.1000 and shall be adjustable in next month's bill.

**6. Rounding off**

The bill shall be rounded off to the nearest multiple of Rs.10. Difference, if any, between the bill amount before and after rounding off, shall be adjusted in next month's bill.

For example: - If the total amount of bill is Rs. 235.00, then the bill shall be rounded off to Rs. 240 and Rs. 5.00 will be credited in next month's bill, whereas if the total amount of bill is Rs. 234.95, then the bill will be rounded off to Rs. 230 and Rs. 4.95 will be debited in next month's bill. In view of the above provision, no surcharge will be levied on outstanding amount, which is less than Rs. 10.

**7. Applicability of tariff**

In case of any dispute about applicability of tariff to a particular LV category, the decision of the Commission shall be final and binding.

**8. 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.

**9. Meter Hire**

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of LV consumers except the consumers of domestic light and fan category. Domestic light and fan category consumer shall not be required to pay such charges.

## **10. Variable Cost Adjustment (VCA) Charge**

VCA charge on consumption from June 1, 2020 as per the formula and conditions specified in the CSERC MYT Regulations, 2015 shall be levied in addition to energy charge on all the LV categories including temporary supply.

However, from the date of applicability of this Order, the base values for computation of VCA for succeeding period shall be revised in accordance to this Order.

## **11. Conditions to have over-riding effect**

All the above conditions of tariff shall be applicable to the consumer notwithstanding the provisions, if any, in the agreement entered into by the consumer with the Licensee.

## **9.2 Tariff Schedule for High Voltage (HV) Consumers**

### **9.2.1 HV-1: Railway Traction**

#### **Applicability:**

This tariff is applicable to the Railways for traction loads only.

#### **Tariff:**

<b>Supply Voltage</b>	<b>Demand Charge (Rs./kVA/month)</b>	<b>Energy Charge (Rs. per kVAh)</b>
Railway Traction on 132 kV / 220 kV	350	4.20

#### **Specific terms and conditions:**

1. The maximum demand means the highest load measured by sliding window principle of measurement in average kVA at the point of supply of a consumer during any consecutive period of 15 minutes during the billing period.
2. 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.



3. 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. In order to give impetus to electrification of railway network in the State, a rebate of 10% in energy charges for new railway traction projects shall be allowed for a period of five years from the date of connection for such new projects for which Agreements for availing supply from the Licensee are finalised during FY 2018-19.
5. Other terms and condition shall be as mentioned in the general terms and conditions of HV tariff.
6. For traction sub-stations of Indian Railways, if Load Factor for any month is above 20%, then a rebate of 30% shall be allowed on Energy Charge calculated on entire energy consumption for that month.

### 9.2.2 HV-2: Mines

#### Applicability

This tariff is applicable to all types of mines, mines with stone crusher unit, coal mines, coal washery, etc., for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption for mining purpose, and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

#### Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	500	6.00
132 kV supply	500	6.15
33 kV supply	500	6.40
11 kV supply	500	6.70

### 9.2.3 HV-3: Other Industrial and General Purpose Non-Industrial

#### Applicability

1. This tariff is applicable to all types of industries including cement industries and industries not covered under 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 compound lighting, etc.
2. This tariff is also applicable for bulk supply at one point to establishment such as Railways (other than traction), hospitals, offices, hotels, shopping malls, electric charging centres for Vehicles, power supplied to outside of State (border villages), educational institutions, mixture and/or stone crushers and other institutions, etc., having mixed load or non-industrial and/or non-residential load. This tariff is also applicable to all other HT consumers not covered specifically in any other HV tariff category.

#### Tariff:

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	350	5.91
132 kV supply	350	6.01
33 kV supply (Load factor >15%)	350	6.36
33 kV supply (Load factor ≤15%)	150	6.51
11 kV supply (Load Factor >15%)	350	6.71
11 kV supply (Load Factor ≤15%)	150	6.91

#### Note:-

- i. For charging stations of Electric Vehicles, a flat rate single part tariff of Rs. 5 per unit shall be applicable.
- ii. A discount of 5% on Energy Charges shall be applicable for hospitals.
- iii. A discount of 5% on Energy Charges shall be applicable for rice mills.

### 9.2.4 HV-4: Steel Industries

#### Applicability

This tariff is applicable to steel industries, mini-steel plant, rolling mills, sponge iron plants, ferro alloy units, steel casting units, pipe rolling plant, iron ore pellet plant,

iron beneficiation plant and combination thereof including wire drawing units with or without galvanizing unit, for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory, and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

**Tariff:**

Supply Voltage HV- 4	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
220 kV supply	365.00	5.30
132 kV supply	365.00	5.45
33 kV supply (Load factor >15%)*	365.00	5.85
33 kV supply (Load factor <=15%)*	180.00	6.35
11 kV supply (Load Factor >15%)*	365.00	5.95
11 kV supply (Load Factor <=15%)*	180.00	6.75

**Note:-**

\*The applicable Load Factor limit for 33 kV and 11 kV supply for exclusive Rolling mills consumers shall be 35%.

Further, to boost industrialization in the areas covered under "**Bastaravem Dakshin Kshetra Adivasi Vikas Pradhikaran**" (notified vide Order dated August 22, 2005) and "**Sargujaavem Uttar Kshetra Adivasi Vikas Pradhikaran**" (notified vide Order dated August 22, 2005), a special rebate of 7% on energy charge is being provided to the consumers starting production on or after April 1, 2017.

**Load Factor Rebate**

The consumers of this category shall be eligible for Load Factor rebate on Energy Charges:

Monthly Load Factor (LF)	Rebate
63% - 63.99%	rebate of 1% on normal Energy Charge calculated on entire energy consumption
64% - 64.99%	rebate of 2% on normal Energy Charge calculated on entire energy consumption
65% – 65.99%	rebate of 3% on normal Energy Charge calculated on entire energy consumption
66% - 66.99%	rebate of 4% on normal Energy Charge calculated on entire energy consumption

<b>Monthly Load Factor (LF)</b>	<b>Rebate</b>
67% - 67.99%	rebate of 5% on normal Energy Charge calculated on entire energy consumption
68% - 68.99%	rebate of 6% on normal Energy Charge calculated on entire energy consumption
69% - 69.99%	rebate of 7% on normal Energy Charge calculated on entire energy consumption
70% - and above	rebate of 8% on normal Energy Charge calculated on entire energy consumption

Provided that in case the monthly Load Factor is 62.99% or below, then no Load Factor Rebate shall be payable in that month:

Provided further that flat 30 hours per month of power-off (non-supply) shall be considered for calculation of Load Factor:

Provided also that the Load Factor Rebate shall not be payable on the excess energy consumed corresponding to exceeding contract demand for that billing month:

Provided also that the monthly Load Factor shall be rounded off to the lowest integer.

### **9.2.5 HV-5: Irrigation & Agriculture Allied Activities, Public Water Works**

#### **Applicability**

1. This tariff shall be applicable for Chhattisgarh State Housing Board and agriculture pump connections, irrigation pumps of lift irrigation schemes of State Government or its agencies/co-operative societies, including colonies developed and energy used for lighting pump houses.
2. This tariff is also applicable to the consumer availing supply at HV for the purpose of pump/tube well connections, other equipment for tree plantation, fisheries, hatcheries, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture and aquaculture laboratories and milk chilling plant and bakery 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.
3. This tariff shall be applicable for public utility water supply schemes, sewerage treatment plants and sewage pumping installations run by P.H.E. Department, Local Bodies, Gram Panchayat or any organization made responsible by the

Government to supply/maintain public water works/sewerage installation including energy used for lighting pump house.

**Tariff:**

Supply Voltage	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
Irrigation, Agriculture Allied Activities & Public Water Works	375	5.30

**9.2.6 HV-6: Residential**

**Applicability**

This tariff shall be applicable for bulk supply at one point to colonies, multi-storied residential buildings, townships, including townships of industries provided that consumption of non-domestic nature for other general purpose load (excluding drinking water supply, sewage pumping and street light) shall not be more than 10% of total monthly energy consumption.

In case the consumption of non-domestic nature for other general-purpose load exceeds 10% of total monthly energy consumption, the tariff of HV-3: Other Industrial and General Purpose Non-Industrial, shall be applicable on entire consumption.

This tariff shall also be applicable to hospitals including educational institutions and X-rays etc. situated within its premises, run by charitable trusts / non-profit organizations / societies registered under the Firms and Societies Act.

**Tariff:**

Category of Consumers	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
Residential	375	5.70

### 9.2.7 HV-7: Start-Up Power Tariff

#### Applicability

The tariff shall be applicable to those consumers who avail supply for start-up power for their power plant (generating station and captive generating plant) at 400/220/132/33/11 kV.

#### Tariff:

Supply Voltage	Demand charge (Rs./kVA/month)	Energy charge (Rs. per kVAh)
400/220/132/33/11 kV	200	8.05

#### Conditions for start-up power consumers:

- i. Contract demand shall not exceed 10% of the highest capacity of generating unit of the generating station/captive generating plant
- ii. Captive generating plants, which do not have any co-located industrial load and who use the grid for transmission and wheeling of electricity can avail start up-power tariff.
- iii. Captive generating plants, which have co-located industrial load are also entitled for start-up power tariff.
- iv. Drawal of power shall be restricted to within 10% of Load Factor based on the Contract Demand in each month. In case the Load Factor in a month is recorded beyond 10%, the demand charge shall be charged at double the normal rate. Supply can also be disconnected if the monthly Load Factor exceeds 10% in any two consecutive months. Load Factor shall be computed from contract demand.
- v. Start-up power shall also be made available to the generator/captive generating plant connected to CTU grid with proper accounting.
- vi. This tariff shall also be applicable to generators for the consumption upto COD of the plant.
- vii. Generators who have not availed start-up connection but eventually draw power from the grid shall be billed @ Rs 12 per kVAh. In case of captive generating plant, which do not have any co-located industrial load and who use the grid for transmission and wheeling of electricity, such CGP's, if they have not availed start-up connection but eventually draw power, shall be billed @ Rs. 12 per kVAh.

- viii. In case of captive generating plant, which have co-located industrial load and who have not availed start-up connection but eventually draws start-up power from the grid shall be billed @ Rs. 12 per kVAh. All renewable generators (biomass and small hydro) are exempted from payment of demand charge for the first five years from the date of commercial operation of their power plant, i.e., they will be required to pay only energy charge during first five years from COD and full start-up tariff from sixth year onwards. However, in case during first five years from the date of its connection, if the actual demand exceeds the contract demand, the billing for that month shall be as per other start-up power consumers exceeding contract demand. In case if the Load Factor is within 10% but actual demand exceeds the contract demand then also the billing for that month shall be as per other start-up power consumer exceeding contract demand. In case, it is established that the biomass based generator has used biomass in the lesser ratio than as mentioned in the guidelines of the Ministry of New and Renewable Energy during any financial year in first five years from the date of availing start up power tariff then demand charge as per this tariff category (HV-7) shall also become payable for the whole of such financial year and such payable amount will be billed in three equal instalments after such happening comes to the notice of CSPDCL.

### **9.2.8 HV-8: Industries related to manufacturing of equipment for power generation from renewable energy sources**

#### **Applicability**

This tariff is applicable to consumers availing supply at 220/132/33/11 kV for manufacturing of plant, machinery and equipment used for generation of power from renewable sources of energy including for the manufacturing of hydel turbine, generator and related auxiliaries needed for small hydel plants up to 25 MW but excluding manufacturing of boilers, turbines, generators, and the related auxiliaries, which otherwise can be used for generation of power from conventional source of energy. This tariff shall also not be applicable for manufacturing of such common machines/equipment/and other items such as electrical motors, structural items, nuts bolts, etc. which can be used for other purposes also.

#### **Tariff:**

<b>Supply Voltage</b>	<b>Demand charge (Rs./kVA/month)</b>	<b>Energy charge (Rs. per kVAh)</b>
220/132/33/11 kV	110	3.70

### 9.2.9 HV-9: Information Technology Industries

#### Applicability

This tariff is applicable to Information Technology Industries having minimum contract demand of 50 kW.

#### Tariff:

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kVAh)	Minimum Charge
HV-9: Information Technology Industries	Nil	4.50	Rs. 3000/-per month

#### Note:

Minimum Charge is monthly minimum charge whether any energy is consumed during the month or not.

### 9.2.10 HV-10: Temporary Connection at HV

#### Applicability

This tariff is applicable to all HV connections (other than the consumers availing Start up power Tariff (HV-7)), of temporary nature at 220/132/33/11 kV.

Provided that for construction purpose, a consumer shall be given a temporary connection only.

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.

#### Tariff:

One and half times of the normal Tariff applicable for the corresponding category of consumer for demand and energy charge shall be applicable.

#### Notes

- An amount equal to estimated bill for 3 months or for the period requisitioned, whichever is less, shall be payable in advance before the temporary connection is



served subject to replenishment from time to time and adjustment in the last bill after disconnection.

- ii. If maximum demand is found more than the contract demand in any billing month, the billing shall be done at one and half times/two times of the energy charges and Demand Charges as applicable, in case of exceeding contract demand in permanent connection, and shall be calculated as per Clause 10 of Terms & Conditions of HV tariff.
- iii. Any expenditure made by CSPDCL up to the point of supply for giving temporary connection shall be payable by the consumer as per prescribed procedure.
- iv. Connection and disconnection charges shall be paid separately.
- v. No rebates/concessions under any head shall be applicable to temporary connections.
- vi. Month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or for part thereof.
- vii. Other terms and conditions of the relevant category of tariff shall also be applicable.
- viii. Surcharge at 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

### 9.2.11 Time of Day Tariff

This tariff is applicable to HV-2, HV-3, and HV-4 tariff category. Under the Time of Day (TOD) Tariff, electricity consumption in respect of HV industries for different periods of the day, i.e., normal period, peak load period and off-peak load period, shall be recorded by installing a TOD meter. Consumption recorded in different periods shall be billed at the following rates on the tariff applicable to the consumer:

Period of Use	Normal rate of Demand Charge Plus
(i) Normal period (5:00 a.m. to 6:00 p.m.)	Normal rate of Energy Charges
(ii) Evening peak load period (6:00 p.m. to 11:00 p.m.)	120% of normal rate of Energy Charge
(iii) Off-peak load period (11:00 p.m. to 5:00 am of next day)	75% of normal rate of Energy Charge

**Applicability and Terms and Conditions of TOD tariff:**

- i. 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.
- ii. In case, the consumer exceeds the contract demand, the demand in excess and the corresponding energy shall be billed at one and half/two times (as per methodology specified in Para “Additional Charges for Exceeding Contract Demand” of the Terms and Conditions of HV Tariff) of the normal tariff applicable for the day time (i.e., 5.00 a.m. to 6.00 p.m.) irrespective of the time of use.

**9.2.12 Terms and Conditions of HV Tariff**

The maximum and minimum contract demand for different supply voltages is governed as per provisions of the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof. Presently, the minimum and maximum permissible load at respective supply voltage are as below except for independent distributed renewable energy system plants (IDRES) which will be governed by CSERC (Grid Interactive Distributed Renewable Energy Sources) Regulations 2019:

Supply Voltage	Minimum	Maximum
11 kV	60 kVA	500 kVA
33 kV	60 kVA	15 MVA
132 kV	4 MVA	40 MVA
220 kV	15 MVA	150 MVA

Deviation in contract demand, if any, in respect of the above provisions on account of technical reasons, may be permitted with the approval of the Commission and billing shall be done accordingly. The HV consumers having contract demand exceeding the maximum limit mentioned above for respective voltage of supply shall be billed as specified at Clause 7 of Terms and Conditions of HV Tariff.

**1. Point of Supply**

Power will be supplied to consumers ordinarily at a single point for the entire premises. In certain categories like coal mines, power may be supplied at more than one point on the request of consumer subject to technical feasibility. HV industrial

consumers can avail separate LV supply as per Clause 4.40 of the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof, in the same premises.

## **2. Billing demand**

The billing demand for any month shall be the maximum demand (in kVA) of the consumer recorded during the billing month or 75% of the contract demand whichever is higher. The billing demand shall be rounded off to the next whole number.

## **3. Determination of Demand**

The maximum demand means the highest load measured by sliding window principle of measurement in average kVA at the point of supply of a consumer during any consecutive period of 15 minutes during the billing period.

## **4. Minimum Charge**

The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

## **5. Rounding off**

The amount of HV energy bill shall be rounded off to the nearest multiple of Rs.10.

For example - the amount of Rs. 12345 will be rounded off to Rs. 12350 and Rs. 12344.95 shall be rounded off to Rs. 12340.

In view of the above provision no surcharge will be levied on outstanding amount, which is less than Rs. 10.

## **6. Delayed Payment Surcharge**

If the bill is not paid by the consumer within the period prescribed (due date) for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any but excluding amount of surcharge), shall be payable in addition, from the due date of payment as mentioned in the bill.

## **7. Additional charges for Local Bodies**

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District

Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the Local Body receives supply.

#### **8. Advance Payment Rebate**

For advance payment made before commencement of consumption period for which bill is to be prepared, a rebate @ 0.5% per month on the amount, which remains with the Licensee at the end of calendar month excluding security deposit, shall be credited to the account of consumer after adjusting any amount payable to the Licensee, subject to the net amount of advance being not less than Rs.20,000 and shall be adjustable in next month's bill.

#### **9. Additional Charge for Exceeding Contract Demand**

The consumers should restrict their maximum demand to the extent of contract demand. In case the maximum demand during any month exceeds the contract demand, the tariff at normal rate 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 all other consumer, where TOD is applicable:

- i. During Off-Peak Hours, no additional charge will be levied on exceeding Contract Demand up to a maximum limit of 20%.
- ii. Beyond 120% of contract demand, excess supply will be billed as per prescribed formula.
- iii. Maximum recorded demand during off peak load period will not be considered for the purpose of demand charges billing, i.e., demand charges will be levied on maximum recorded demand during normal and peak load period.

Provided further that in case of excess supply to consumers (other than of HV-7 tariff category) having minimum contract demand of 150 MVA, and having captive generating plant(s) of capacity of at least 150 MW, such consumers shall have to pay an additional demand charges of Rs. 20/kVA/month on the quantum of power availed over and above its contract demand notwithstanding anything contained anywhere in

this order. Further, energy consumed corresponding to excess supply shall be billed at normal tariff.

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 kVA of the portion of the demand in excess of the contract demand shall be:

$$EU = TU (1 - CD/MD)$$

Where

EU - denotes units corresponding to excess supply,

TU - denotes total units supplied during the month,

CD - denotes contract demand, and

MD - denotes maximum demand.

The excess supply availed in any month shall be charged along with the monthly bill and shall be payable by the consumer.

The billing of excess supply at one and half times/two times of the normal tariff applicable to consumer is without prejudice to CSPDCL's right to discontinue the supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof.

iii. No rebates/incentive is payable on such excess supply.

**10. Additional Charge**

The HV consumers having contract demand exceeding the maximum limit as prescribed in Clause 1 of terms and conditions of HV tariff 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 HV consumers.

## **12. Tax or Duty**

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law/State Government Rules in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

## **13. Variable Cost Adjustment (VCA) charge**

VCA charge on consumption from June 1, 2020 as per the formula and conditions specified in the CSERC MYT Regulations, 2015 shall be levied in addition to energy charge on all the HV categories including temporary supply.

However, from the date of applicability of this Order, the base values for computation of VCA for succeeding period shall be revised in accordance to this Order.

## **14. Dispute on applicability of tariff**

In case of any dispute on applicability of tariff on a particular category of HV industry/ consumer, the decision of the Commission shall be final and binding.

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.

## **15. Parallel Operation Charges (POC)**

Parallel Operation Charges shall be payable by CPP to CSPDCL for its captive and non-captive load as per the order dated 05/04/2019 passed in petition No. 09 of 2018.

### **9.3 Open Access Charges**

#### **1. Transmission Charges**

The long-term and medium-term open access customers including CSPDCL shall be required to pay the Annual Transmission Charges approved by the Commission. Bills shall be raised for Transmission Charge on monthly basis by the STU (CSPTCL), and payments shall be made by the beneficiaries and long-term and medium-term open access customers directly to the CSPTCL. These monthly charges shall be shared by the long-term open access customers and medium-term open access customers as per allotted capacity proportionately. The monthly transmission charge is Rs. 79.11Cr.

For short-term open access customer: Rs. 324.40/MWh (or Rs. 0.3244 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent

amendment(s)/revision, if any, at 100% Load Factor for transmission. The same charges shall be applicable for both collective and bilateral transactions at the point or points of injection.

## **2. Energy Losses for Transmission**

Transmission Losses of 3% for the energy scheduled for transmission at the point or points of injection shall be recoverable from open access customers.

## **3. Wheeling Charges**

For long-term, medium-term and short-term open access customer: Rs. 238/MWh (or Rs. 0.238 per kWh) for the energy computed as per the provisions made in Regulation 33 of the CSERC (Connectivity and Intra State Open access) Regulations, 2011 and its subsequent amendment(s)/revision, if any, at 100% load factor for wheeling. The same charges shall be applicable for both collective and bilateral transactions at the point of injection.

## **4. Energy losses for distribution**

Distribution Losses of 6% for the energy scheduled for distribution at the point or points of injection at 33 kV side of 33/11 kV sub-station shall be recoverable from open access customers.

## **5. Operating Charges**

The short-term open access customer shall pay the Operating Charges to SLDC at the rate of Rs. 2000 per day.

## **6. Reactive Charges**

Reactive Energy Charges shall be levied at the rate of 27 paise/kVARh.

## **7. Cross Subsidy Charges**

- i. For 220 kV/132 kV consumers Rs. 1.31 per kWh (which is 90% of the computed value of Rs. 1.46 per kWh).
- ii. For 33 kV consumers Rs. 1.14 per kWh (which is 90% of the computed value of Rs. 1.26 per kWh).

## **8. Standby Charges**

The Standby Charges for consumers availing open access (using transmission and/or distribution system of Licensee) and who draw power from the grid up to the contracted capacity of open access during the outage of generating plant/CPP shall be

1.5 times of the per kWh weighted average tariff of HV consumers, which is Rs. 10.45 per kWh (1.5 times of the average billing rate of Rs.6.97 per kWh). For drawal of power in excess of the contracted capacity of open access, the tariff for availing standby support from the grid shall be two times of the per unit weighted average tariff of HV consumers, which is Rs.13.93 per kWh (2 times of the average billing rate of Rs. 6.97 per kWh). Further, in case of outage of CPP supplying power to captive/non-captive consumer who has reduced its contract demand to zero and also availed open access draws power of CSPDCL, then billing of such power drawn shall be done as per the standby charges mentioned above.

**9. Intra-State Open Access Charges for Renewable Energy transactions**

- a) Transmission Charges in cash for long-term/medium-term/short-term open access - NIL
- b) Wheeling Charges in cash for long-term/medium-term/short-term open access - NIL
- c) SLDC Charges (Operating Charges) for long-term/medium-term/short-term open access - NIL
- d) Total Transmission Charges or Wheeling Charges or Combination thereof in kind (energy losses) for long-term/medium-term/short-term open access - 6%
- e) Cross-Subsidy Surcharge
  - i. A consumer availing open access is required to pay the cross-subsidy surcharge.
  - ii. In case a generating company is an open access customer and is supplying power to a consumer of the State, the liability of paying cross-subsidy surcharge shall be on the consumer. If a captive generating plant avails open access for supplying power to its captive users, and if the captive users do not fulfil the requirement of captive users in a financial year as prescribed in the Electricity Rules, 2005, then that end user/s shall be liable to pay the Cross-Subsidy Surcharge.
  - iii. The Cross-Subsidy Surcharge payable is 50% of the Cross Subsidy Surcharge determined for that year, which is as under:
    - a) For 220 kV/132 kV consumers Rs.0.65 per kWh (which is 50% of the computed value of Rs. 1.46 per kWh).
    - b) For 33 kV consumers Rs. 0.57 per kWh (which is 50% of the



computed value of Rs. 1.26 per kWh).

In case of a consumer receiving power from Solar power plants through open access, no Cross Subsidy Surcharge shall be payable.

- iv. In case of a consumer receiving power from biomass based power generating plants through open access, if it is established that the biomass based power generating plants supplying power to such consumer has used biomass in the lesser ratio than as mentioned in the guidelines of the Ministry of New and Renewable Energy during any financial year, then the relaxations at (iii) above given to the open access consumer shall be treated as withdrawn for that financial year and the biomass generator shall be liable to pay to CSPDCL full Cross Subsidy Surcharge.

## **10 DIRECTIVES**

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### **10.1 Common Directive to all Utilities**

Commission notes that the power sector is passing through severe liquidity crisis because of the prevailing pandemic-related disruption. In order to ease the situation, the Central sector power generating and transmission utilities are allowing rebate to the State distribution companies on the energy supplied to them in compliance to the Central Government's order. In the operative order dated 31.05.2020, the Commission has already noted that ROE at the rate of 15.5% for CSPGCL and CSPTCL and 16% for CSPDCL may not be prudent keeping in view the overall situation. Though the Commission shall take a view in this regard at the time of true-up, it may be in the interest of the utilities themselves, particularly CSPGCL and CSPTCL, as well as in the broader interest of the State Power Sector, to provide relief by way of appropriate upfront reduction in the ROE.

### **10.2 New Directives to CSPGCL**

- (1) As regards DSPM TPS, the Commission notes that CSPGCL has considered the capital cost of Rs. 18.54 Cr. for LP rotor, which has been inadvertently missed out in FY 2018-19 and will be booked in accounts for FY 2019-20. The Commission notes same and accordingly the amount has been considered in FY 2018-19. Further, the Commission directs CSPGCL not to consider the same amount at time of final true-up for FY 2019-20 and same shall be submitted separately to the Commission.
- (2) Regarding ABVTPP, Commission has granted the extension of cut-off date upto March 31, 2021 with the condition that no cost escalation on account of such time extension shall be entertained. Further, no time extension beyond the control period shall be granted. The utility is directed to submit the detailed delay analysis in the true up for FY 2020-21, else irrespective of actual LD recovery or not, the balance 50% of the projected LD shall also be adjusted in the petition itself.

**Annexure - I – List of persons who submitted written submissions**

<b>S. No.</b>	<b>Name</b>
1.	Shri Manish Dhuppad (Gen. Secretary) Chhattisgarh Mini Steel Plant Association, Raipur (CG)
2.	Shri Ravikiran Sreepada (Trust Officer) Shri Sathva Sai Sanjeevani International Center for Child Health Care, Raipur (CG)
3.	Shri Mukesh Pandey (President) Chhattisgarh Induction Furnace Forum Raipur (CG)
4.	Shri Mohan Anty (President), Chhattisgarh Pradesh Vidyut Upbhokta Sanrakshan Parishad, Raipur (CG)
5.	Shri Raza Ahmed, R.M.M. Member, Bhilai, Durg (CG)
6.	Shri Biju Johnson, Chhattisgarh Swabhimanch, Durg (CG)
7.	Shri Shyam Kabra, State Chief Convenor, Confederation of Electricity Consumers of Chhattisgarh
8.	Shri Vikas Agrawal (President), Chhattisgarh Mini Steel Plant Association
9.	Shri Vivek Tanvani, Telghani Naka, Gudhiyari, Raipur (CG)
10.	I. B. Group, Indian Agro and Food Industries Ltd., ABIS Poultry Pvt. Ltd.
11.	Shri Paresh Kalla (Vice President – Power Plant) Jayaswal Neco Industries Ltd.
12.	Shri Manoj Agrawal (President) Chhattisgarh Steel Re-rollers Association
13.	Shri Ashwin Garg, President, Urla Industries Association
14.	Indian Medical Association, Branch, Raipur (CG)
15.	Shri S.G. Oak Gen. Secretary, CS Retired Power Engineers Officers Association, Raipur (CG)
16.	Shri Ramdas Agrawal, District Industries Association, Bilaspur (CG)
17.	Shri Kailash Kumar Gupta, Pikri Ward No.1, Bemetara (CG)
18.	Chhattisgarh Power Producers Association, Pandari, Raipur (CG)
19.	Shri S.K. Mahadule (Prantiya Adhayksh) Chhattisgarh Rajya Vidyut Mandal Patropadhi Abhiyanta Sangh, Raipur (CG)
20.	Chhattisgarh Bijali Karmchari Sangh-Mahasangh, Raipur (CG)

21.	Shri T. N. A. Reddy, Secretary, Electric Power Transmission Association, New-Delhi
22.	Shri S.K.Goyal, Director, Shri Bajrang Power And Ispat Ltd. Raipur (CG)
23.	S. Lakshmi, GM (Energy Cell), Bhilai Steel Plant, Bhilai (CG)
24.	M/s Anant Rice Industries (Unit-2), Arang, Raipur (CG)
25.	M/s R.K.Ricotech Private Limited, Ramsagar Para, Raipur (CG)
26.	M/s Maa Chandi Rice Industries, Dhamtari (CG)
27.	M/s Mahamaya Foods, Dhamtari (CG)
28.	Chhattisgarh Pradesh Rice Millers Association, Dhamdha Road, Durg (CG)
29.	M/s Geeta Lakshmi Modern Rice Mill Pvt Ltd., Dhamtari (CG)
30.	Raipur Zila Rice Millers Association, Ramsagar Para, Raipur (CG)
31.	Kurud Rice Mill Association, Dhamtari (CG)
32.	Zila Rice Mill Association, Mahasamund (CG)
33.	Chhattisgarh Induction Furnace Forum, Samta Colony, Raipur (CG)
34.	Chief Electrical Engineer (EEM), South East Central Railway, Bilaspur (CG)

**Annexure-II – List of persons who submitted comments during hearing**

<b>S. No.</b>	<b>Name</b>
1.	Shri Shyam Kabra
2.	Shri Mohan Anty
3.	Shri Raj Kumar Gupta
4.	Shri Raza Ahmed
5.	Shri Mahesh Kakkar
6.	Shri Rahul Morkhare
7.	Shri Sathva Sai Sanjeevani International Center for Child Health Care, Raipur
8.	South East Central Railway, Bilaspur (CG)
9.	Shri Vikas Agrawal
10.	Shri Ashish Barnard for Mini Steel Plant Association
11.	Shri Shrichand Sundrani
12.	Shri Kaushik for I. B. Group
13.	Shri Manoj Agrawal
14.	Dr. Anil Jain
15.	Dr. Asha Jain
16.	Vindhyanchal Oxygen Pvt. Ltd.
17.	Shri Paresh Kalla
18.	S. Lakshmi
19.	Shri Dilip Bafna
20.	Shri Lalit Kumar Agrawal
21.	Shri S.K.Goyal
22.	Shri S.G. Oak
23.	Shri S. K. Mahadule

### ANNEXURE -III

#### LIST OF STATE ADVISORY COMMITTEE (SAC) MEMBER WHO ATTENDED SAC MEETING ON 16.03.2020 ON THE TARIFF PETITION

Sr. No.	Name
1	Shri G. R. Korram from Department of Food and Civil Supplies & Consumers Protection, Mantralaya, Atal Nagar, Raipur (CG)
2	Shri M. H. Prasad from Chhattisgarh State Power Distribution Co. Ltd., Raipur (CG)
3	Shri A. K. Agnihotri from Chhattisgarh Renewable Energy Development Authority, Raipur (CG)
4	Shri Vikram Jain, General Secretary, Urla Industries Association, Raipur (CG)
5	Shri R. K. Agrawal from Laghu Udyog Bharti, Fafadih, Raipur (CG)
6	Shri Dheeraj Pandey from Jay Prakash Memorial Center, Kirandul (CG)
7	Dr. N. D. Londhe, Associate Professor, NIT, Raipur (CG)
8	Shri Amit Verma (Electrical Engineer) Grahak Panchayat, Raipur (CG)

**Annexure - IV - Purchase from Thermal Generating Stations based on Economic  
Despatch Principle**

<b>Sr. No.</b>	<b>Particulars</b>	<b>Energy Charge (Paise/unit)</b>	<b>Energy Availability at G&lt;math&gt;\leftrightarrow&lt;/math&gt;T Interface (MU)</b>	<b>Inter-State Transmission Losses (MU) @ 3.09%</b>	<b>Energy Availability at State Periphery (MU)</b>	<b>Energy Purchase at State Periphery (MU)</b>	<b>Energy Surrender at State Periphery (MU)</b>
1.	NTPC-SAIL	378.67	297.31	9.2	288.11	24.01	264.10
2.	Solapur TPS	348.63	1,041.12	32.21	1,008.91	84.08	924.83
3.	Mauda II	331.68	574.65	17.78	556.87	46.41	510.47
4.	Mauda I	327.73	409.86	12.68	397.18	60.7	336.47
5.	Gaderwara	326.4	1,026.45	31.76	994.69	225.15	769.53
6.	Lara TPS I	214.01	2,620.99	81.1	2,539.89	1,487.09	1,052.81
7.	Lara TPS II	214.00	1,306.91	40.44	1,266.47	1,094.84	171.63
8.	Kahargaon	213.99	823.91	25.49	798.42	731.88	66.53
9.	Kahalgaoon	213.05	185.83	5.75	180.08	165.07	15.01
10.	KTPS	212.30	1,306.12		1,306.12	1,278.83	27.28
11.	Vindhyachal – I	177.75	-	-	-	-	-
12.	Vindhyachal – V	173.38	273.22	8.45	264.77	264.77	-
13.	Vindhyachal – II	171.18	-	-	-	-	-
14.	Vindhyachal – III	170.15	714.02	22.09	691.92	691.92	-
15.	Vindhyachal – IV	167.85	425.35	13.16	412.19	412.19	-
16.	HTPS	156.50	5,133.20		5,133.20	5,133.20	-
17.	DSPM	152.90	3,387.93		3,387.93	3,387.93	-
18.	Sipat II	145.45	1,091.60	33.78	1,057.83	1,057.83	-
19.	Sipat I	141.08	2,162.48	66.91	2,095.57	2,095.57	-
20.	Korba STPS	135.40	1,508.36	46.67	1,461.69	1,461.69	-
21.	Korba STPS – VII	132.83	550.47	17.03	533.44	533.44	-
22.	KWTPP	132.70	3,527.54		3,527.54	3,527.54	-
23.	<b>Grand Total</b>		<b>28,367.32</b>	<b>464.51</b>	<b>27,902.81</b>	<b>23,764.15</b>	<b>4,138.66</b>

**Annexure - V – Station-wise Power Purchase Cost**

Sr. No	Particulars	Energy Availability (MUs)	Purchase by CSPDCL (MUs)	Interstate Losses		Energy Available at State Periphery (MUs)	Energy Purchase at State Periphery (MUs)	Intrastate Losses		Energy Purchase at CSPDCL Periphery (MUs)	AFC Paid by CSPDCL (Rs Cr.s)	Energy Charge (Paisa/k Wh)	Energy Charge (Rs Cr.s)	Total Charges (Rs Cr.s)	Average Cost (Paisa/k Wh)
				%	Mus			%	MUs						
<b>1</b>	<b>Central Generating Stations</b>	<b>15,595.23</b>	<b>11,352.57</b>		<b>351.27</b>	<b>15,112.68</b>	<b>11,001.30</b>		<b>330.04</b>	<b>10,671.26</b>	<b>1,698.48</b>	<b>194.50</b>	<b>2,139.78</b>	<b>3,753.34</b>	<b>330.62</b>
<b>A</b>	<b>KORBA STPS</b>	<b>1,508.36</b>	<b>1,508.36</b>		<b>46.67</b>	<b>1,461.69</b>	<b>1,461.69</b>		<b>43.85</b>	<b>1,417.84</b>	<b>100.50</b>		<b>204.23</b>	<b>304.74</b>	<b>202.03</b>
<i>I</i>	<i>Unit I</i>	143.65	143.65	3.09%	4.44	139.21	139.21	3.00%	4.18	135.03	9.57	135.40	19.45	29.02	202.03
<i>ii</i>	<i>Unit II</i>	143.65	143.65	3.09%	4.44	139.21	139.21	3.00%	4.18	135.03	9.57	135.40	19.45	29.02	202.03
<i>iii</i>	<i>Unit III</i>	143.65	143.65	3.09%	4.44	139.21	139.21	3.00%	4.18	135.03	9.57	135.40	19.45	29.02	202.03
<i>iv</i>	<i>Unit IV</i>	359.13	359.13	3.09%	11.11	348.02	348.02	3.00%	10.44	337.58	23.93	135.40	48.63	72.56	202.03
<i>V</i>	<i>Unit V</i>	359.13	359.13	3.09%	11.11	348.02	348.02	3.00%	10.44	337.58	23.93	135.40	48.63	72.56	202.03
<i>vi</i>	<i>Unit VI</i>	359.13	359.13	3.09%	11.11	348.02	348.02	3.00%	10.44	337.58	23.93	135.40	48.63	72.56	202.03
<b>B</b>	<b>KORBA STPS Unit VII</b>	<b>550.47</b>	<b>550.47</b>	<b>3.09%</b>	<b>17.03</b>	<b>533.44</b>	<b>533.44</b>	<b>3.00%</b>	<b>16.00</b>	<b>517.44</b>	<b>73.48</b>	<b>132.83</b>	<b>73.12</b>	<b>146.60</b>	<b>266.32</b>
<b>C</b>	<b>VINDHYACHAL</b>	<b>1,412.59</b>	<b>1,412.59</b>		<b>43.71</b>	<b>1,368.88</b>	<b>1,368.88</b>		<b>41.07</b>	<b>1,327.81</b>	<b>194.14</b>		<b>240.25</b>	<b>434.40</b>	<b>307.52</b>
<i>I</i>	<i>Stage I</i>	-	-	3.09%	-	-	-	3.00%	-	-	-	177.75	-	-	-
<i>ii</i>	<i>Stage II</i>	-	-	3.09%	-	-	-	3.00%	-	-	-	171.18	-	-	-
<i>iii</i>	<i>Stage III</i>	714.02	714.02	3.09%	22.09	691.92	691.92	3.00%	20.76	671.17	77.71	170.15	121.49	199.20	278.99
<i>iv</i>	<i>Stage IV</i>	425.35	425.35	3.09%	13.16	412.19	412.19	3.00%	12.37	399.82	69.35	167.85	71.40	140.75	330.90
<i>V</i>	<i>Stage V</i>	273.22	273.22	3.09%	8.45	264.77	264.77	3.00%	7.94	256.82	47.07	173.38	47.37	94.44	345.67
<b>D</b>	<b>SIPAT STPS</b>	<b>3,254.09</b>	<b>3,254.09</b>		<b>100.69</b>	<b>3,153.40</b>	<b>3,153.40</b>		<b>94.60</b>	<b>3,058.80</b>	<b>430.42</b>		<b>463.85</b>	<b>894.26</b>	<b>274.81</b>
<i>I</i>	<i>Stage I</i>	2,162.48	2,162.48	3.09%	66.91	2,095.57	2,095.57	3.00%	62.87	2,032.70	305.61	141.08	305.07	610.68	282.40
<i>ii</i>	<i>Stage II</i>	1,091.60	1,091.60	3.09%	33.78	1,057.83	1,057.83	3.00%	31.73	1,026.09	155.54	145.45	158.77	314.31	287.94
<b>E</b>	<b>MAUDA STPS</b>	<b>984.51</b>	<b>110.53</b>		<b>3.42</b>	<b>954.05</b>	<b>107.11</b>		<b>3.21</b>	<b>103.90</b>	<b>141.31</b>		<b>36.41</b>	<b>177.73</b>	<b>1,607.96</b>
<i>I</i>	<i>Stage I</i>	409.86	62.64	3.09%	1.94	397.18	60.70	3.00%	1.82	58.88	83.16	327.73	20.53	103.69	1,655.20
<i>ii</i>	<i>Stage II</i>	574.65	47.89	3.09%	1.48	556.87	46.41	3.00%	1.39	45.01	58.16	331.68	15.88	74.04	1,546.16
<b>F</b>	<b>NTPC - SAIL (NSPCL)</b>	<b>297.31</b>	<b>24.78</b>	<b>3.09%</b>	<b>0.77</b>	<b>288.11</b>	<b>24.01</b>	<b>3.00%</b>	<b>0.72</b>	<b>23.29</b>	<b>52.60</b>	<b>378.67</b>	<b>9.38</b>	<b>61.99</b>	<b>2,501.90</b>
<b>G</b>	<b>LARA STPS</b>	<b>3,927.90</b>	<b>2,664.37</b>		<b>82.44</b>	<b>3,806.36</b>	<b>2,581.93</b>		<b>77.46</b>	<b>2,504.47</b>	<b>420.29</b>		<b>570.18</b>	<b>990.46</b>	<b>371.74</b>
<i>I</i>	<i>Unit I</i>	2,620.99	1,534.57	3.09%	47.48	2,539.89	1,487.09	3.00%	44.61	1,442.47	280.45	214.00	328.40	608.84	396.75
<i>ii</i>	<i>Unit II</i>	1,306.91	1,129.80	3.09%	34.96	1,266.47	1,094.84	3.00%	32.85	1,062.00	139.84	214.00	241.78	381.62	337.77
<b>H</b>	<b>SOLAPUR STPS</b>	<b>1,041.12</b>	<b>86.76</b>		<b>2.68</b>	<b>1,008.91</b>	<b>84.08</b>		<b>2.52</b>	<b>81.55</b>	<b>104.74</b>		<b>30.25</b>	<b>134.99</b>	
<i>I</i>	<i>Unit I</i>	1,041.12	86.76	3.09%	2.68	1,008.91	84.08	3.00%	2.52	81.55	104.74	348.63	30.25	134.99	1,555.91
<i>ii</i>	<i>Unit II</i>	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
<b>i</b>	<b>GADERWARA</b>	<b>1,026.45</b>	<b>232.34</b>		<b>7.19</b>	<b>994.69</b>	<b>225.15</b>		<b>6.75</b>	<b>218.40</b>	<b>110.34</b>		<b>75.84</b>	<b>186.18</b>	<b>801.32</b>
<i>i</i>	<i>Unit I</i>	513.22	116.17	3.09%	3.59	497.34	112.58	3.00%	3.38	109.20	110.34	326.40	37.92	148.26	1,276.23



Sr. No	Particulars	Energy Availability (MUs)	Purchase by CSPDCL (MUs)	Interstate Losses		Energy Available at State Periphery (MUs)	Energy Purchase at State Periphery (MUs)	Intrastate Losses		Energy Purchase at CSPDCL Periphery (MUs)	AFC Paid by CSPDCL (Rs Cr.s)	Energy Charge (Paisa/k Wh)	Energy Charge (Rs Cr.s)	Total Charges (Rs Cr.s)	Average Cost (Paisa/k Wh)
				%	Mus			%	MUs						
ii	Unit II	513.22	116.17	3.09%	3.59	497.34	112.58	3.00%	3.38	109.20	-	326.40	37.92	37.92	326.40
<b>j</b>	<b>KHARGAON STPS</b>	<b>823.91</b>	<b>755.25</b>		<b>23.37</b>	<b>798.42</b>	<b>731.88</b>		<b>21.96</b>	<b>709.92</b>	<b>16.80</b>		<b>161.62</b>	<b>178.42</b>	<b>236.24</b>
i	Unit I	411.95	377.62	3.09%	11.68	399.21	365.94	3.00%	10.98	354.96	8.40	214.00	80.81	89.21	236.24
ii	Unit II	411.95	377.62	3.09%	11.68	399.21	365.94	3.00%	10.98	354.96	8.40	214.00	80.81	89.21	236.24
<b>k</b>	<b>DHUWARAN STPS</b>	-	-		-	-	-		-	-	-	-	-	-	-
i	Unit I	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
ii	Unit II	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
<b>l</b>	<b>KAHALGAON STPS</b>	<b>185.83</b>	<b>170.35</b>		<b>5.27</b>	<b>180.08</b>	<b>165.07</b>		<b>4.95</b>	<b>160.12</b>	<b>23.12</b>		<b>36.29</b>	<b>59.41</b>	<b>348.75</b>
i	Stage I	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
ii	Stage II	185.83	170.35	3.09%	5.27	180.08	165.07	3.00%	4.95	160.12	23.12	213.05	36.29	59.41	348.75
<b>m</b>	<b>BARH STPS</b>	-	-		-	-	-		-	-	-	-	-	-	-
i	Stage I	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
ii	Stage II	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
<b>n</b>	<b>NORTH KARANPURA</b>	-	-		-	-	-		-	-	-	-	-	-	-
i	Stage I	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
ii	Stage II	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
<b>o</b>	<b>NPCIL</b>	<b>568.74</b>	<b>568.74</b>		<b>17.60</b>	<b>551.14</b>	<b>551.14</b>		<b>16.53</b>	<b>534.61</b>	-		<b>235.20</b>	<b>235.20</b>	<b>413.54</b>
i	Tarapur (Unit 3 & 4)	298.35	298.35	3.09%	9.23	289.12	289.12	3.00%	8.67	280.45	-	307.10	91.62	91.62	307.10
ii	Kakrapar Atomic Station	270.38	270.38	3.09%	8.37	262.02	262.02	3.00%	7.86	254.16	-	531.00	143.57	143.57	531.00
<b>p</b>	<b>OTHERS</b>	<b>13.95</b>	<b>13.95</b>		<b>0.43</b>	<b>13.52</b>	<b>13.52</b>		<b>0.41</b>	<b>13.12</b>	-		<b>3.17</b>	<b>3.17</b>	<b>226.99</b>
i	Hirakund (OHPCL)	13.95	13.95	3.09%	0.43	13.52	13.52	3.00%	0.41	13.12	-	226.99	3.17	3.17	226.99
ii	Subhansiri	-	-	3.09%	-	-	-	3.00%	-	-	-	-	-	-	-
Q	<b>Rebate on AFC on account of COVID-19</b>										(84.92)			(84.92)	
<b>2</b>	<b>State Generating Stations</b>	<b>20,077.49</b>	<b>20,050.21</b>		-	<b>20,077.49</b>	<b>20,050.21</b>		<b>598.58</b>	<b>19,451.63</b>	<b>3,581.75</b>		<b>3,116.62</b>	<b>6,698.37</b>	<b>334.08</b>
A	KTPS – East	1,306.12	1,278.83		-	1,306.12	1,278.83		38.36	1,240.47	328.80		271.50	600.30	469.41
I	Phase II	-	-		-	-	-	3.00%	-	-	-	212.30	-	-	-
ii	Phase III	1,306.12	1,278.83		-	1,306.12	1,278.83	3.00%	38.36	1,240.47	328.80	212.30	271.50	600.30	469.41
B	DSPM TPS	3,387.93	3,387.93		-	3,387.93	3,387.93	3.00%	101.64	3,286.29	467.58	152.90	518.01	985.59	290.91
C	Hasdeo TPS	5,133.20	5,133.20		-	5,133.20	5,133.20	3.00%	154.00	4,979.21	606.83	156.50	803.35	1,410.17	274.72
D	KTPS- West	3,527.54	3,527.54		-	3,527.54	3,527.54	3.00%	105.83	3,421.72	615.29	132.70	468.10	1,083.40	307.13
E	Marwa	6,349.58	6,349.58		-	6,349.58	6,349.58		190.49	6,159.09	1,533.12		1,015.30	2,548.42	401.35
I	Unit I	3,174.79	3,174.79		-	3,174.79	3,174.79	3.00%	95.24	3,079.54	766.56	159.90	507.65	1,274.21	401.35

Sr. No	Particulars	Energy Availability (MUs)	Purchase by CSPDCL (MUs)	Interstate Losses		Energy Available at State Periphery (MUs)	Energy Purchase at State Periphery (MUs)	Intrastate Losses		Energy Purchase at CSPDCL Periphery (MUs)	AFC Paid by CSPDCL (Rs Cr.s)	Energy Charge (Paisa/k Wh)	Energy Charge (Rs Cr.s)	Total Charges (Rs Cr.s)	Average Cost (Paisa/k Wh)
				%	Mus			%	MUs						
ii	Unit II	3,174.79	3,174.79		-	3,174.79	3,174.79	3.00%	95.24	3,079.54	766.56	159.90	507.65	1,274.21	401.35
F	HPS Bango	271.26	271.26		-	271.26	271.26	3.00%	8.14	263.12	30.13		-	30.13	111.07
G	HPS Korba Mini Hydro	4.38	4.38		-	4.38	4.38	3.00%	0.13	4.25	-	381.28	1.67	1.67	381.28
H	HPS Gangrel	25.75	25.75		-	25.75	25.75	0.00%	-	25.75	-	368.16	9.48	9.48	368.16
I	HPS Sikaser	24.04	24.04		-	24.04	24.04	0.00%	-	24.04	-	268.72	6.46	6.46	268.72
J	Co-Gen Kawardha	47.70	47.70		-	47.70	47.70	0.00%	-	47.70	-	476.94	22.75	22.75	476.94
			-			-	-								
<b>3</b>	<b>Renewables</b>	<b>1,351.93</b>	<b>1,351.93</b>		-	<b>1,351.93</b>	<b>1,351.93</b>		-	<b>1,351.93</b>	-		<b>1,006.70</b>	<b>1,006.70</b>	<b>744.64</b>
A	Biomass	686.28	686.28	0.00%	-	686.28	686.28	0.00%	-	686.28	-	614.00	421.38	421.38	614.00
B	Solar	502.62	502.62	0.00%	-	502.62	502.62	0.00%	-	502.62	-	703.00	353.34	353.34	703.00
C	Wind Plant SECI	27.38	27.38	0.00%	-	27.38	27.38	0.00%	-	27.38	-	252.00	6.90	6.90	252.00
D	Solar Plant SECI	41.61	41.61	0.00%	-	41.61	41.61	0.00%	-	41.61	-	261.00	10.86	10.86	261.00
E	Hydel/Other RE	85.03	85.03	0.00%	-	85.03	85.03	0.00%	-	85.03	-	385.00	32.74	32.74	385.00
F	Venika Hydro	9.02	9.02	0.00%	-	9.02	9.02	0.00%	-	9.02	-	385.00	3.47	3.47	385.00
G	RE Certificates		-			-	-						178.02	178.02	
			-			-	-								
<b>4</b>	<b>Concessional Power</b>	<b>1,530.87</b>	<b>1,530.87</b>		-	<b>1,530.87</b>	<b>1,530.87</b>		<b>45.93</b>	<b>1,484.95</b>	-		<b>244.94</b>	<b>244.94</b>	<b>160.00</b>
A	At rate	1,530.87	1,530.87		-	1,530.87	1,530.87	3.00%	45.93	1,484.95	-	160.00	244.94	244.94	160.00
<b>5</b>	<b>Short Term Purchase</b>	<b>124.49</b>	<b>124.49</b>		-	<b>124.49</b>	<b>124.49</b>		<b>3.73</b>	<b>120.75</b>	-	<b>300.00</b>	<b>37.35</b>	<b>37.35</b>	<b>300.00</b>
<b>6</b>	<b>Transmission Charges</b>													<b>1,589.87</b>	
A	Inter-State Transmission Charges													603.93	
B	Intra-State Transmission Charges													1,002.42	
C	CSLDC Charges													13.71	
D	Rebate on AFC on account of COVID-19													(30.20)	
<b>7</b>	<b>Gross Power Purchase Cost</b>	<b>38,680.01</b>	<b>34,410.08</b>		<b>351.27</b>	<b>38,072.98</b>	<b>34,058.81</b>		<b>978.28</b>	<b>33,080.53</b>	<b>5,280.23</b>		<b>6,545.39</b>	<b>13,330.57</b>	<b>387.40</b>
8	Less: Sale of Power to Telangana State	6,159.09	6,159.09			6,159.09	6,159.09			6,159.09	-	408.35	2,515.08	2,515.08	408.35
<b>9</b>	<b>Net Power Purchase Cost</b>		<b>28,250.99</b>		<b>351.27</b>	<b>31,913.89</b>	<b>27,899.72</b>		<b>978.28</b>	<b>26,921.44</b>	<b>5,280.23</b>		<b>4,030.31</b>	<b>10,815.48</b>	<b>382.84</b>

## FORMAT-I

### Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : Korba (East) Thermal Power Station - KTPS

	Description	Unit	Considered in Tariff order	For the Month of	For the Month of	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)				
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)				
d	Normative Transit & Handling Losses	%	1.15%			
e	Normative Transit & Handling Losses (cXd)	(MMT)				
f	Net coal / Lignite Supplied (c-e)	(MMT)				
g	Amount charged by the Coal / Lignite Company	(Rs.)				
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Coal Sampling Fees	(Rs.)				
j	Net amount Charged by Coal Company (g+h+i)	( Rs.)				
k	Rate of Coal for the period Charged by Coal Company $= (j / (f * 10^6))$	Rs/MT				
l	Rate of Bonus payable to Coal Company	Rs/MT				
m	Net Rate of coal payable to coal company (k+l)	Rs/MT				
n	Transportation Charge per Ton	Rs/MT	177.98			
o	Landed Price of Coal per MT (m+n)	Rs./MT	1,641.03			
p	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,080.85			
q	Normative SHR	Kcal/ KWh	3,110			
r	Normative Specific Oil Consumption	ml/ KWh	2.00			
s	GCV of Secondary Fuel (Oil)	Kcal/ml	10			
t	Normative Auxiliary Consumption	%	11.25			
u	ECR for the Period = $((q - rxs) / (p) * (o / 1000) / (1 - t))$	Rs/ KWh				
v	ECR as considered in Tariff order	Rs/ KWh	1.855			
w	Change in ECR (u-v)	Rs/ KWh				
aa	Scheduled Generation during the Period	KWh				
ab	FCA Claim for the Period (wXaa )	Rs				

## FORMAT-I

### Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : Korba (West) Thermal Power Station - HTPS

	Description	Unit	Considered in Tariff order	For the Month of	For the Month of	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)				
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)				
d	Normative Transit & Handling Losses	%	0.20%			
e	Normative Transit & Handling Losses (cXd)	(MMT)				
f	Net coal / Lignite Supplied (c-e)	(MMT)				
g	Amount charged by the Coal / Lignite Company	(Rs.)				
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Coal Sampling Fees					
j	Net amount Charged by Coal Company(g+h+i)	( Rs.)				
k	Rate of Coal for the period Charged by Coal Company =(j/(f*10 <sup>6</sup> ))	Rs/MT				
l	Rate of Bonus payable to Coal Company	Rs/MT				
m	Net Rate of coal payable to coal company (k+l)	Rs/MT	1,609.77			
n	Transportation Charge per Ton	Rs/MT	80.75			
o	Landed Price of Coal per MT (m+n)	Rs./MT	1,690.52			
p	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,406.33			
q	Normative SHR	Kcal/ KWh	2,650.00			
r	Normative Specific Oil Consumption	ml/ KWh	0.80			
s	GCV of Secondary Fuel (Oil)	Kcal/ml	10			
t	Normative Auxiliary Consumption	%	9.70			
u	ECR for the Period= ((q-(rxs))/(p)*(o/1000)/(1-t)	Rs/ KWh				
v	ECR as considered in Tariff order	Rs/ KWh	1.452			
w	Change in ECR (u-v)	Rs/ KWh				
aa	Scheduled Generation during the Period	KWh				
ab	FCA Claim for the Period (wXaa )	Rs				

## FORMAT-I

### Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : Dr. Shyama Prasad Mukharjee Thermal Power Station - DSPM TPS

	Description	Unit	Considered in Tariff order	For the Month of	For the Month of	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)				
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)				
d	Normative Transit & Handling Losses	%	0.20%			
e	Normative Transit & Handling Losses (cXd)	(MMT)				
f	Net coal / Lignite Supplied (c-e)	(MMT)				
g	Amount charged by the Coal / Lignite Company	(Rs.)				
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Coal Sampling Fees	Rs				
j	Net amount Charged by Coal Company (g+h+i)	( Rs.)				
k	Rate of Coal for the period Charged by Coal Company $= (j / (f \times 10^6))$	Rs/MT				
l	Rate of Bonus payable to Coal Company	Rs/MT				
m	Net Rate of coal payable to coal company (k+l)	Rs/MT				
n	Transportation Cost Paid to railways	Rs				
o	Transportation Charge rate paid to Railways $(n / (f \times 10^6))$	Rs/MT				
p	Other Charges (per Ton) towards transportation	Rs/MT				
q	Total per ton Transportation Charges (o+p)	Rs/MT				
r	Landed Price of Coal per MT (m+q)	Rs./MT	1,921.22			
s	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,449.20			
t	Normative SHR	Kcal/ KWh	2,500			
u	Normative Specific Oil Consumption	ml/ KWh	0.50			
v	GCV of Secondary Fuel (Oil)	Kcal/ml	10.00			
w	Normative Auxiliary Consumption	%	9.00			
x	ECR for the Period= $((t - (u \times v)) / (s) * (r / 1000)) / (1 - w)$	Rs/ KWh				
y	ECR as considered in Tariff order	Rs/ KWh	1.527			
z	Change in ECR (x-y)	Rs/ KWh				
aa	Scheduled Generation during the Period	Kwh				
ab	FCA Claim for the Period (zXaa)	Rs				

### FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : - 1x500 MW KW Extn

	Description	Unit	Considered in Tariff order	For the Month of	For the Month of	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)				
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)				
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)				
d	Normative Transit & Handling Losses	%	0.20%			
e	Normative Transit & Handling Losses (cXd)	(MMT)				
f	Net coal / Lignite Supplied (c-e)	(MMT)				
g	Amount charged by the Coal / Lignite Company	(Rs.)				
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Coal Sampling Fees					
j	Net amount Charged by Coal Company (g+h+i)	( Rs.)				
k	Rate of Coal for the period Charged by Coal Company $= (j / (f * 10^6))$	Rs/MT				
l	Rate of Bonus payable to Coal Company	Rs/MT				
m	Net Rate of coal payable to coal company (k+l)	Rs/MT	1,609.77			
n	Transportation Charge per Ton	Rs/MT	80.75			
o	Landed Price of Coal per MT (m+n)	Rs./MT	1,690.52			
p	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,400.59			
q	Normative SHR	Kcal/ KWh	2,375			
r	Normative Specific Oil Consumption	ml/ KWh	0.50			
s	GCV of Secondary Fuel (Oil)	Kcal/ml	10			
t	Normative Auxiliary Consumption	%	5.25			
u	ECR for the Period = $((q - (rxs)) / (p) * (o / 1000) / (1 - t))$	Rs/ KWh				
v	ECR as considered in Tariff order	Rs/ KWh	1.243			
w	Change in ECR (u-v)	Rs/ KWh				
aa	Scheduled Generation during the Period	KWh				
ab	FCA Claim for the Period (wXaa )	Rs				

## FORMAT-I

Details/Information for Computation of Energy Charge Rates

Name of the Company : Chhattisgarh State Power Generation Company Limited

Name of the Power Station : ABV Thermal Power Plant – ABV TPP

	Month	Unit	Considered in Tariff order	For the Month of	For the Month of	Total for period
a	Quantity of Coal / Lignite supplied by Coal/Lignite Company	(MMT)	-			
b	Adjustment (+/-) in quantity supplied made by Coal/Lignite Company	(MMT)	-			
c	Coal supplied by Coal/Lignite Company (a+b)	(MMT)				
d	Normative Transit & Handling Losses	%	0.80%			
e	Normative Transit & Handling Losses (cXd)	(MMT)				
f	Net coal / Lignite Supplied (c-e)	(MMT)				
g	Amount charged by the Coal / Lignite Company	(Rs.)				
h	Adjustment (+/-) in amount charged made by Coal/Lignite Company	(Rs.)				
i	Coal Sampling Fees					
j	Net amount Charged by Coal Company (g+h+i)	( Rs.)				
k	Rate of Coal for the period Charged by Coal Company = $(j/(f \times 10^6))$	Rs/MT				
l	Rate of Bonus payable to Coal Company	Rs/MT				
m	Net Rate of coal payable to coal company (k+l)	Rs/MT				
n	Transportation Cost Paid to railways	Rs				
o	Transportation Charge rate paid to Railways $(n/(f \times 10^6))$	Rs/MT				
p	Road transportation charges	Rs/MT				
q	Total per ton Transportation Charges (p+o)					
r	Landed Price of Coal per MT (m+q)	Rs./MT	1,535			
s	Average GCV of coal / Lignite as fired	(kCal/Kg)	3,280.29			
t	Normative SHR	Kcal/ KWh	2,378			
u	Normative Specific Oil Consumption	ml/ KWh	0.50			
v	GCV of Secondary Fuel (Oil)	Kcal/ml	10			
w	Normative Auxiliary Consumption	%	5.25			
x	ECR for the Period= $((t-(uxv))/(s)*(r/1000)/(1-w))$	Rs/ KWh				
y	ECR as considered in Tariff order	Rs/ KWh	1.373			
z	Change in ECR (x-y)	Rs/ KWh				
aa	Scheduled Generation during the Period	Kwh				
ab	FCA Claim for the Period ( zXaa)	Rs				