

**Final True-up for FY 2022-23,  
And Re-Determination of Aggregate Revenue  
Requirement for FY 2024-25 and Retail Tariff  
for FY 2024-25**

Submitted to:

**Chhattisgarh State Electricity Regulatory Commission**

January, 2024

**CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LIMITED, RAIPUR**

(A Government of Chhattisgarh Undertaking)

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**CHHATTISGARH STATE POWER DISTRIBUTION COMPANY LIMITED**

(A Government of Chhattisgarh Undertaking) (A Successor Company of CSEB)

CIN U40108CT2003SGC015822

**OFFICE OF EXECUTIVE DIRECTOR (RA&PM), CSPDCL, RAIPUR**

Email ID: cecomcseb@rediffmail.com, Phone 0771-2574441, website:www.cspdcl.co.in

No. 02-02/Tariff/ 2803

Raipur Dated: 12/01/2024

To,

**The Secretary,  
Chhattisgarh State Electricity Regulatory Commission,  
Irrigation Colony, Shanti Nagar,  
Raipur, Chhattisgarh - 492 001**

**Sub.: Submission of Petition for approval of final True up of FY 2022-23, Re-determination of ARR for FY 2024-25 and Retail Supply Tariff for FY 2024-25.**

Dear Sir,

In exercise of its powers conferred under section 61 of the Electricity Act, 2003, the Hon'ble Commission has issued the CSERC (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 and its subsequent amendments. The aforesaid regulations completed its term on 31.03.2022.

The Hon'ble Commission has finalized the CSERC (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, 2021 which has been notified on 18/11/2021.

The instant Petition contains Final True-up for the FY 2022-23 and Re-determination of ARR for FY 2024-25; projections of revenue at existing tariff and charges and revenue gap and retail supply Tariff for FY 2024-25 in accordance with CSERC (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, 2021.

It is further submitted that CSPDCL had filed a review Petition bearing no. 53 of 2023 against the Order of Hon'ble Commission, dated 28.03.2023, in Petition No. 95/2022, containing issues of disallowed expenditure in respect of Final True Up of FY 2021-22 and Determination of the ARR for the FY 2023-24. In addition, CSPDCL had filed another Review Petition, registered by Hon'ble Commission as 91/2023, in which it was prayed that the revenue gap of Rs. 2924.53 Crore in the tariff order for FY 2023-24, determined by the Hon'ble Commission, may be removed by suitable intervention. The Hon'ble Commission disposed off the petition with the direction that CSPDCL may include this



revenue gap along the tariff petition for FY 2024-25. Hon'ble Commission vide its Order dated 20.07.2023 in Petition No. P.N 53 of 2023 disposed of the aforesaid Petition granting liberty to the Petitioner to include the points raised in the Review Petition in the Tariff Petition for 2024-25. Accordingly, the points raised in both the Review Petition have also included in the instant Petition and revenue gaps of the same has been included in the true up gap along with carrying cost.

The following documents are enclosed here for the kind perusal and approval by the Hon'ble Commission:

1. Formal Petition, Formats and Affidavit verifying the Petition along with authorization.
2. Petition Fee of Rs. 10,00,000/- (Rupees Ten Lakhs only) through RTGS No. UBINH23339789407 dated 05.12.2023 has been deposited to IDBI Bank, Main Branch in Account No. 049104000358385 of the CSERC.

Petitioner requests Hon'ble Commission to kindly admit the aforesaid Petition after condoning the delay and proceed further in the matter at the earliest. Further it also requests the Hon'ble Commission to kindly provide us an opportunity of personal hearing to further clarify/explain our submissions in respect of this Petition.

Thanking You,

Yours Faithfully,



**Executive Director (RA&PM)**  
**CSPDCL, Raipur**

Enclosed: As above



**BEFORE THE CHHATTISGARH STATE ELECTRICITY REGULATORY  
COMMISSION, RAIPUR**

IN THE MATTER OF : Filing of the Petition for the approval of Final True-up for the FY 2022-23, Re-determination of ARR for FY 2024-25; projection of revenue at existing tariff and charges with revenue gap and determination of Retail Supply Tariff for the FY 2024-25 under Section 62 and 64 of the Electricity Act, 2003

AND

PETITION BY : Chhattisgarh State Power Distribution Company limited (hereinafter referred as "CSPDCL" or "the Petitioner" or Applicant)

The Applicant respectfully submits as under: -

1. The Petitioner is a distribution licensee in the areas as notified by the Government of Chhattisgarh (GoCG) under the CSEB Transfer Scheme Rules, 2010.
2. The Petitioner submits that the Hon'ble Commission has issued the following regulations namely, CSERC (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") and its subsequent amendments. Further Hon'ble Commission has finalized the CSERC (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, 2021 (hereinafter referred as "CSERC MYT Regulations, 2021") which has been notified on 18.11.2021.
3. CSPDCL is filing this Petition for the approval of Final True-up for the FY 2022-23 and, Re-determination of Tariff for FY 2024-25; projection of revenue at existing tariff and charges with revenue gap and determination of Retail Tariff for the FY 2024-25 in accordance with the provisions of CSERC MYT Regulations 2021.
4. Civil Appeal No. 10290-10291 before Hon'ble Supreme Court of India containing issues related to Delayed Payment Surcharge, Sale of Surplus Power and 33 kV Distribution Loss Incentive and a Writ Petition (Civil) No. 1927/2016 before Hon'ble High Court of Chhattisgarh containing issues in Tariff Order dated 12<sup>th</sup> June 2014 passed by the Hon'ble Commission against final true up for FY 2011-12 and FY 2012-13 are pending. Further, Appeal No. 286 of 2017 against Tariff Order dated 31<sup>st</sup> March 2017 and Appeal No. 161 of 2021 against Tariff order 28<sup>th</sup> February 2019 is also pending before Hon'ble Appellate Tribunal for Electricity, New Delhi. Though outcome of issues raised in aforesaid matters may have bearing on successive tariff orders, yet for the purpose of this Petition, all such issues have been considered in accordance with respective MYT Regulations and its amendments from time to time.

Further, this Petition is without prejudice to any recourse or exercise of any other remedy in respect of the MYT Regulations or/and any relevant provision under the Act.

5. The Petition also contains contents of the Review Petitions No. 53/2023 and 91/2023, filed by CSPDCL against the Tariff Order dated 28.03.2023. The Hon'ble Commission has given liberty to CSPDCL to





include the claims in the orders passed against the referred petitions. Accordingly, the revenue impact of all the issues in the above petitions have also been included in the table of true-up gap for FY 2022-23 and the ARR for FY 2024-25, along with their respective carrying cost.

6. As per the request made by CSPDCL for extension of due date of filing of tariff petition the Hon'ble Commission had granted extension till 30.12.2023 vide letter dtd. 15.12.2023. Subsequently, due to prevailing circumstances CSPDCL had requested for further 15 days extension (till 15.01.2024), consent of the Hon'ble Commission is still awaited in this regard. Hence, the Hon'ble Commission is humbly prayed for condoning the delay and accept the tariff petition for further consideration please.

Dated: 12/01/2024

Petitioner



Executive Director (RA&PM)  
CSPDCL, Raipur

## Contents

NOTES AND ABBREVIATIONS .....	8
1. BACKGROUND .....	10
2. CONTENTS OF THIS PETITION .....	12
3. REGULATORY REQUIREMENT OF FILING TARIFF PETITION .....	14
4. METHODOLOGY ADOPTED IN FILING OF THIS PETITION (INCLUDING CONSTRAINTS) ..	15
5. REVIEW APPLICATION ARISING OUT OF ORDER DATED 28.03.2023 PASSED IN Petition No. 95/2022(T) & IN PERSUANCE TO CSERC ORDER DATED 20.07.2023 IN PETITION NO. 53 OF 2023 .....	16
6. FINAL TRUE UP OF FY 2022-23 .....	24
Number of Consumers, Connected load and Energy Sales within State .....	24
Energy Balance and Distribution Loss .....	26
Incentive / Penalty for Under Achievement of Distribution Loss .....	28
Power Purchase Expenses .....	28
Operation and Maintenance Expenses .....	32
Sharing of Gain and (Losses) of O&M Expenses .....	34
Contribution to Pension and Gratuity .....	36
Capital Structure for the FY 2022-23 .....	36
Depreciation .....	38
Interest and Finance Charge .....	39
Interest on Working Capital .....	40
Return on Equity .....	41
Non-Tariff Income .....	41
Aggregate Revenue Requirement .....	42
Revenue from Sale of Power .....	43
Revenue Gap/ (Surplus) .....	43
7. AGGREGATE REVENUE REQUIREMENT FOR FY 2024-25 .....	45
Category-wise Forecast – Sales .....	46
Category-wise Forecast – Number of Consumers .....	47
Category-wise Forecast – Connected Load .....	48
8. RETAIL TARIFF PROPOSAL .....	60
9. PRAYER TO COMMISSION .....	72
10. AFFIDAVIT .....	74



## List of Tables

Table 1 Category Wise Number of Consumers in FY 2022-23 (Nos.).....	24
Table 2 Category wise Connected Load in FY 2022-23 (MW).....	25
Table 3 Category Wise Sales in FY 2022-23 (MU).....	25
Table 4 Energy Balance for FY 2022-23.....	27
Table 5 Energy Balance for FY 2022-23.....	27
Table 6 Incentive / Penalty of Under Achievement of Distribution Losses .....	28
Table 7 Power Purchase Expenses FY 2022-23 .....	30
Table 8 Summary of Power Purchase Cost for FY 2022-23.....	32
Table 9 HR Expenses FY 2022-23 .....	33
Table 10 Details of Expenses on Contract Manpower (Rs. Cr) .....	33
Table 11 A&G and R&M Expenses for FY 2022-23 (As per Final Accounts).....	34
Table 12 Normative A&G and R&M Expenses for FY 2022-23 (Rs. Cr.) .....	35
Table 13 Sharing of (Gain)/Loss for FY 2022-23 (Rs. Cr.) .....	35
Table 14 Contribution to Pension and Gratuity for FY 2022-23 (Rs. Cr.).....	36
Table 15 Capital Structure for FY 2022-23 (Rs. Cr.).....	37
Table 16 Funding Structure of Capitalised Assets in FY 2022-23 .....	38
Table 17 Depreciation for FY 2022-23 (Rs. Cr.).....	38
Table 18 Loan Portfolio for FY 2022-23 (Rs. Cr.).....	39
Table 19 Interest on Loan for FY 2022-23 (Rs. Cr.) .....	39
Table 20 Interest on Working Capital for FY 2022-23 (Rs. Cr.) .....	40
Table 21 Return on Equity for FY 2022-23 (Rs. Cr.).....	41
Table 22 Non-Tariff Income (Rs. Cr.).....	41
Table 23 ARR Summary for FY 2022-23 (Rs. Cr.).....	42
Table 24 Revenue from Sale of Power for FY 2022-23 (Rs. Cr.).....	43
Table 25 Revenue Gap / Surplus for FY 2022-23 .....	43
Table 26: Consumer Category Wise Projection of Sales (MU) for the FY 2024-25.....	46
Table 27: Consumer Category Wise Projection of Number of Consumers for the FY 2024-25.....	47
Table 28: Consumer Category Wise Projection of Connected Load (MW) for the FY 2024-25 .....	49
Table 29: Inter-State Transmission Loss (%) .....	50
Table 30: Energy Balance for FY 2024-25.....	51
Table 31: Minimum quantum of electricity to be procured by Obligated Entity as percentage of total consumption.....	53
Table 32 Renewable Energy Capacity Addition Envisaged for FY 2024-25.....	53
Table 33: Concessional Power Purchase for the FY 2024-25.....	54
Table 34: Transmission and other charges for the FY 2024-25 .....	55
Table 35: Power Purchase Cost for FY 2024-25 .....	55
Table 36: Aggregate Revenue requirement for FY 2024-25 .....	57
Table 37: Details of Category Wise Revenue for FY 2024-25.....	58
Table 38: Revenue from Sale of Power at Existing Tariff (Rs. crore) .....	58
Table 39: Standalone Revenue Surplus / (Deficit) (Rs. crore).....	59
Table 40: Standalone Revenue Surplus / (Deficit) and ACOS (Rs. crore).....	60

## NOTES AND ABBREVIATIONS

### In this Petition

- ✓ MYT Period is defined as control period of 3 years beginning from 01.04.2022 to 31.03.2025
- ✓ Ensuing Year is defined as Financial Year 2024-25
- ✓ Current Year is defined as Financial Year 2023-24
- ✓ Previous Year is separately defined as Financial Year 2022-23
- ✓ All currency figures used in this Petition, unless specifically stated otherwise, are in Rs. crore.

Abbreviation	Full Description
APR	Annual Performance Review
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal for Electricity
CERC	Central Electricity Regulatory Commission
PGCIL	Power Grid Corporation India Limited
CGS	Central Generating Stations
Co-gen	Cogeneration Power Plant
CPP	Captive Power Plant
CSEB	Chhattisgarh State Electricity Board
CSERC	Chhattisgarh State Electricity Regulatory Commission
CSPDCL	Chhattisgarh State Power Distribution Company Limited
CSPGCL	Chhattisgarh State Power Generation Company Limited
CSPTCL	Chhattisgarh State Power Transmission Company Limited
CSPTdCL	Chhattisgarh State Power Trading Company Limited
EA - 2003	The Electricity Act 2003
FY	Financial Year
GoCG	Government of Chhattisgarh
GoI	Government of India
HT	High Tension
HV	High Voltage
IDC	Interest During Construction
IPP	Independent Power Project
kV	Kilo Volt





Abbreviation	Full Description
LT	Low Tension
LV	Low Voltage
MoP	Ministry of Power, Government of India
MU	Million Units
PLR	Prime lending rate
GFA	Gross Fixed Assets
MYT	Multi Year Tariff
NCE / NCES	Non-Conventional Energy Sources
SEB	State Electricity Board
SGS	State Generating Stations
S/s	Sub-Station
TO	Tariff Order
SLDC	State Load Dispatch Centre
SOC, MOC	System Operation Charges, Market Operation Charges
STOA	Short Term Open Access
WRPC	Western Region Power Committee
TOD	Time of Day

## 1. BACKGROUND

- 1.1 Chhattisgarh State Electricity Board (CSEB) was a part of the erstwhile Madhya Pradesh Electricity Board (MPEB) till 2000. It became a separate entity with the formation of the State of Chhattisgarh. The board functioned as unified entity till December 2008 when the State Government notified a transfer scheme for unbundling it. The transfer scheme resulted in the formation of five successor entities for undertaking the functions of the erstwhile board. Chhattisgarh State Power Distribution Company Limited (CSPDCL) is one of the five successor entities, formed for undertaking the 'Distribution function' of CSEB. CSPDCL started its operations on 1st January 2009.
- 1.2 The Hon'ble Commission by exercising its powers conferred under Section 45, 46 and 62 read with Section 181(zf) of the Electricity Act 2003 (36 of 2003) issued CSERC (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 for the MYT Control period from FY 2016-17 to FY 2020-21 on 09<sup>th</sup> September 2015 and subsequent amendment issued on 16<sup>th</sup> June 2017. Further, due to Covid-19 condition Hon'ble Commission decided to extend the time period of MYT Regulations, 2015 upto 31.3.2022 through secretary CSERC Letter No. 03/CSERC/Tariff/2020/1229 dated 26.11.2020. Accordingly, the petitioner had filed the true-up Petition for FY 2021-22 in accordance with the Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 and amendments thereof.
- 1.3 It is submitted that the present True-up of FY 2022-23 has been prepared in accordance with 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, 2021.
- 1.4 Further, the Hon'ble Commission in its MYT Regulations, 2021 has directed the licensees to file Re-determination of ARR for FY 2024-25, and projection of revenue at existing tariff and charges with revenue gap and determination of tariff for ensuing year i.e. FY 2023-24. The relevant clauses of CSERC MYT Regulations 2021 are reproduced below.

5.7 (b) After first year of control period and onwards, the yearly true up petition shall comprise of:

(ii) For Distribution Wheeling and Retail Supply Business -

1. The trueing up petition for preceding year(s).
2. Revised power purchase quantum/cost (if any), with details thereof for the ensuing year.
3. Revenue from existing tariffs and charges and projected revenue for the ensuing year.
4. Application for re-determination of ARR for the ensuing year along-with retail tariff proposal.

- 1.5 As per clause 10 of the Regulations:

10.2 .....The Distribution Licensee shall file an application for Trueing up of the previous year(s) and determination of tariff for the ensuing year, within the time limit specified in these Regulations:



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

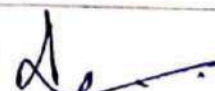
*10.3 In case the audited accounts are not available, the provisional truing up shall be done on the basis of un-audited / provisional account and shall be subject to further final truing up, as soon as the audited accounts is available.*

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

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

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

- 1.6** Civil Appeal no. 10290-10291 before Hon'ble Supreme Court containing issues related to Delayed Payment Surcharge, Sale of Surplus Power and 33 kV Distribution Loss Incentive and a Writ Petition (Civil) No. 1927/2016 before Hon'ble High Court of Chhattisgarh containing issues in Tariff Order dated 12<sup>th</sup> June 2014 passed by the Hon'ble Commission against final true up for FY 2011-12 and FY 2012-13 are pending. Further, Appeal No. 286 of 2017 against Tariff Order dated 31<sup>st</sup> March 2017 and Appeal No. 161 of 2021 against Tariff order 28<sup>th</sup> February 2019 is also pending before Hon'ble ATE. Though outcome of issues raised in aforesaid matters may have bearing on successive tariff orders, yet for the purpose of this Petition, all such issues have been considered in accordance with respective MYT Regulations and its amendments from time to time.
- 1.7** In light of the above the present Petition has been prepared in compliance to provisions under Section 61 and 62 of the Electricity Act, 2003 together with other relevant provisions of the Act and under CSERC (Conduct of Business) Regulations, 2009; and CSERC (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, 2021.
- 1.8** The Petition also contains contents of the Review Petitions No. 53/2023 and 91/2023, filed by CSPDCL against the Tariff Order dated 28.03.2023. The Hon'ble Commission has given liberty to CSPDCL to include the claims in the orders passed against the referred petitions. Accordingly, the revenue impact of all the issues in the above petitions have also been included in the table of true-up gap for FY 2022-23 and the ARR for FY 2024-25, along with their respective carrying cost.



## 2. CONTENTS OF THIS PETITION

2.1 The Petition has in details basis, assumptions and projections of individual elements constituting, basis of calculations, all assumptions, sources of data of components constituting the Final True up of FY 2022-23 and redetermination of ARR for FY 2024-25 along with the impact of issues raised in the Review Petition bearing no. 53 of 2023.

The following sections explains in detail the basis and projected forecasts of the following elements for FY 2024-25:

- a. Determination of Aggregate Revenue Requirement by forecasting the following:
  - i. Energy Sales
  - ii. Distribution Loss and Energy Requirement
  - iii. Power Purchase from various sources to meet the Energy Requirement
- b. Determination of aggregate revenue requirement by replacing the actuals and forecasting the following costs, other income & Returns:
  1. Power Purchase Cost
  2. Transmission and SLDC charges
  3. O&M Expenses
    - a) HR Expenses
      - i. Employee Expenses
      - ii. Impact of Pay Revision
      - iii. Manpower deployed on Outsourcing basis.
    - b) M&G Expenses
  4. Pension and Gratuity Fund Contribution
  5. Depreciation
  6. Interest and Finance Charges
  7. Interest on Working Capital
  8. Return on Equity
  9. Provision for bad and doubtful debt
  10. Aggregate Revenue Requirement

Less:

11. Non- Tariff Income
12. Income from Other Business
13. Revenue on account of Open Access/ Wheeling Charges
14. Revenue from Sale of Surplus Power



2.2 The Projections for FY 2024-25 have been derived from the following:

- Computation of Total ARR as per the methodology adopted by CSERC for determination of expenses for each year of third control period.
- Computation of Revenue at existing Tariffs
- Determination of Gap between Revenue at existing Tariff & Cost

2.3 The Petition also contains contents of the Review Petitions No. 53/2023 and 91/2023, filed by CSPDCL against the Tariff Order dated 28.03.2023. The Hon'ble Commission has given liberty to CSPDCL to include the claims in the orders passed against the referred petitions. Accordingly, the revenue impact of all the issues in the above petitions have also been included in the table of true-up gap for FY 2022-23 and the ARR for FY 2024-25, along with their respective carrying cost.



### **3. REGULATORY REQUIREMENT OF FILING TARIFF PETITION**

#### **Regulations**

3.1 The Petition has been based on following regulations notified/ finalized by the Hon'ble Commission:

- i. CSERC (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, 2021 applicable for control period FY 2022-23 to FY 2024-25.

3.2 The MYT Regulations 2021 have been referred for final true up of FY 2022-23 and redetermination of ARR for FY 2024-25.

#### **Tariff Orders**

3.3 For the final true up of FY 2022-23 following orders have been considered:

- Tariff Order dated 13.4.2022 wherein the Hon'ble Commission has approved ARR for the Period FY 2022-23.
- Tariff Order dated 28.03.2023 wherein the Hon'ble Commission has approved ARR for the period FY 2023-24.

3.4 There were certain instructions/advices/directions issued by the Commission. CSPDCL has endeavoured to ensure compliance to these instructions/advices/directions issued by the Commission and has structured its current Petition accordingly to capture the maximum information with respect to this Petition.

3.5 For re-determination of Tariff for FY 2024-25, the projections have been made on the basis of the CSERC MYT Regulations 2021 and Tariff order dated 13.04.2022 wherein the Hon'ble Commission has determined the MYT ARR for the Control Period from FY 2022-23 to FY 2024-25.





## 4. METHODOLOGY ADOPTED IN FILING OF THIS PETITION (INCLUDING CONSTRAINTS)

### Methodology

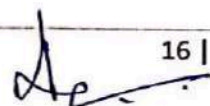
- 4.1 CSPDCL is now submitting the final True up for the FY 2022-23 based on final accounts. It consists of details of actual expenditures made by CSPDCL and details of revenue received leading to actual revenue gap incurred from April 2022 to March 2023. The final True-up of CSPDCL for the FY 2022-23 is a measure of accounting gains / losses and expenditures incurred to carry forward the electricity distribution business. The Petitioner has proposed the final True-up of FY 2022-23 as per the provisions of applicable rules and regulations. It humbly requests the Hon'ble Commission to approve the final true up of FY 2022-23.
- 4.2 Impact of the issues raised in the Review Petition bearing No. 53 of 2023 has also been shown in separate chapter and its revenue impact has also been included in the true up gap of FY 2022-23.
- 4.3 Further, in accordance with the applicable provisions of CSERC MYT Regulations 2021, expenses and income have been projected for re-determination of ARR for the Period FY 2024-25.
- 4.4 The Petitioner submits that Regulation 3.28 of the MYT Regulations, 2021 specifies that the expenditure incurred means the fund, whether the equity or debt or both, actually deployed and paid in cash or cash equivalent, for creation or acquisition of a useful asset and does not include commitments or liabilities for which no payment has been released. Further, the proviso to it specifies that any subsequent payment for creation or acquisition of the assets shall be considered as expenditure incurred from the date of its release.
- 4.5 In this regard, the Petitioner humbly submits that that in accordance with Regulations all additional capital expenditure which have been admitted and started a fresh from 1.04.2022, the accounting, MIS for tracking such schemes on cash basis has been started. However, for such schemes which have been started in the period before 1.04.2022 and being spilled over carried out in phased manner, the Petitioner humbly submits the additional expenditure may be considered on accrual basis and not cash basis.
- 4.6 The Petitioner in case of present Petition has considered the liability amounting to Rs. 90.81 Crore out of Rs. 1297.25 Crore of the total additional capitalization during the year and has accordingly deducted the same from the accrual capitalization of Rs. 1297.25 Crore and has claimed an amount of Rs. 1206.44 Crore as capitalization on cash basis during FY 2022-23.



## 5. REVIEW APPLICATION ARISING OUT OF ORDER DATED 28.03.2023 PASSED IN Petition No. 95/2022(T) & IN PERSUANCE TO CSERC ORDER DATED 20.07.2023 IN PETITION NO. 53 OF 2023

### 5.1 SYNOPSIS

- a) This review petition arises from impugned common tariff order dated 28.03.2022 in Petition No. 95/2022(T), wherein the Hon'ble Commission, while adjudicating the contentions raised by the Petitioner in Review Petition No. 51 of 2022 relating to the excess deduction pertaining to the provision of banking charges, has due to oversight committed an error and held that it has allowed the provisioning of Rs. 384.55 crore towards banking provisions in Petition No. 03 of 2021 even when the amount of Rs. 384.55 crores which was allowed by the Hon'ble Commission in petition No. 03 of 2021 was towards the provisional power purchase expense of CSPDCL pertaining to March-2020 against the power purchased by Petitioner from Central Generating Station. Further, this amount was completely unrelated with the provision made towards the banking expenses.
- b) It is humbly submitted that the Petitioner in the tariff petition No. 03 of 2021 has sought an amount of Rs. 488.69 crore towards the Banking provisions for the true up of FY 2018-19. This was included in the head of 'other charges' of power purchase expense from Central Generating Station. The amount as reflected in Table No. 6.10 showing power purchase cost of FY 2018-19 reflects amount of Rs. 194.55 crore which is inclusive of the Rs. 488.69 crore.
- c) The Commission had allowed the same for the FY 2018-19. Further, since the provision towards banking expenses is not be considered for regulatory process, the Petitioner while providing the power purchase expense for the true up of FY 2019-20 subtracted the expenses allowed by the Hon'ble Commission towards banking provision. This meant that the amount of Rs. 388.55 crores (actual expense against banking in the FY 2018-19) which was allowed by the Hon'ble Commission in the FY 2018-19 was reversed by the Petitioner itself in the year 2019-20 in accordance with the regulatory scheme.
- d) That it is further submitted that the Table No. 6.11 in the petition No. 03 of 2021 shows Total expense for power purchase from CGS as Rs. 3856.21 crore which was arrived after deducting the expenses towards banking provision as mentioned above. The entry of other charges in the Table 6.11 under the CGS head amounting to Rs. 384.55 crore is towards the monthly power purchase expense for the month of March-2020 and this does not include any provision expense towards the banking charges/banked units.
- e) From the above it is clear that the amount towards banking provisions which was allowed to the Petitioner in the true up of FY 2018-19 was returned by the Petitioner itself in the true of FY 2019-20. However, the Hon'ble Commission in Chapter 6 (6.11) of the order dated 13.04.2022 in Petition No. 75 of 2021 while dealing the points raised by the Petitioner, has erroneously again deducted the amount of Rs. 488.69 crore from the expense cost of the Petitioner. This means that the amount towards charges pertaining to banking provision was deducted twice as it was deducted primarily by the Petitioner itself in the true up of the FY





2019-20 and then subsequently, it was re- deducted by the Hon'ble Commission in the Petition No. 75 of 2021.

- f) This was brought in the notice of the Hon'ble Commission by the Petitioner in review petition No. 51 of 2022. However, the Hon'ble Commission had stated that the same will be considered in the tariff order for 2023-24. Subsequently, the Hon'ble Commission in the Petition No. 95 of 2022 had decided upon the issue erroneously by holding that the amount of Rs. 384.55 crore claimed by the Petitioner under the head of 'Other Charges' in FY 2019-20 (Table 6.11 of the tariff order dated 02.08.2021) was towards the banking provision which is incorrect. The amount of Rs. 384.55 crore reflecting the Table 6.11 was towards the provisional monthly power purchase expense for the Month of March-2020 and had nothing to do with the provision towards banking expense. Moreover, the petitioner had itself deducted the amount allowed to it towards the provisional banking expense in the previous year while filing the true up for the FY 2019-20.
- g) That in view of the above, the deduction made by the Hon'ble Commission in the impugned tariff order dated 28.03.2023 pertaining to the allowed claim of Rs. 488.69 crore in the true up of FY 2018-19 is incorrect and made due to oversight and therefore, it is requested that the same maybe reversed.
- h) Further, apart from the above error committed in the tariff order, the Hon'ble Commission has also deducted the expenses towards other charges that the Petitioner had incurred for procuring concessional power from thermal generating stations for the mere reason that segregation of the same was not provided by the Petitioner. However, such query was not raised to Petitioner during technical validation sessions and therefore, the Petitioner could not submit the same. Thus, it is requested that the impugned order be amended to allow such amount of expenditure incurred towards additional charges paid to thermal generating station.
- i) The Hon'ble Commission has also committed slight oversight by wrongly calculating the carrying cost to be recovered by the Petitioner and has further wrongly taken target AT&C losses as 16% during the FY 2020-21 even when the RDSS scheme to which Petitioner is a party projects the target line losses to be 17.94%.
- j) That above discussed parameters were wrongly decided due to oversight in the impugned order and thus there is error apparent on the face of records. Therefore, it is requested that the impugned order maybe review to the extent sought in the instant petition.

## 5.2 Subject matter in brief including cause of action:

- i. This review petition arises from impugned common tariff order dated 28.03.2022 in Petition No. 95/2022(T), wherein the Hon'ble Commission, while adjudicating the contentions raised by the Petitioner in Review Petition No. 51 of 2022 relating to the excess deduction pertaining to the provision of banking charges, has due to oversight committed an error and held that it has allowed the provisioning of Rs. 384.55 crore towards banking provisions in Petition No. 03 of 2021 even when the amount of Rs. 384.55 crores which was allowed by the Hon'ble Commission in petition No. 03 of 2021 was towards the provisional power purchase expense of CSPDCL pertaining to March-2020 against the power purchased by Petitioner from Central Generating Station. Further, this amount was completely unrelated with the provision made towards the banking expenses.



- ii. It is humbly submitted that the Petitioner in the tariff petition No. 03 of 2021 has sought an amount of Rs. 488.69 Crore towards the Banking provisions for the true up of FY 2018-19. This was included in the head of 'other charges' of power purchase expense from Central Generating Station. The amount as reflected in Table No. 6.10 showing power purchase cost of FY 2018-19 reflects amount of Rs. 194.55 crore which is inclusive of the Rs. 488.69 crore.
- iii. The Commission had allowed the same for the FY 2018-19. Further, since the provision towards banking expenses is not be considered for regulatory process, the Petitioner while providing the power purchase expense for the true up of FY 2019-20 subtracted the expenses allowed by the Hon'ble Commission towards banking provision. This meant that the amount of Rs. 388.55 crores (actual expense against banking in the FY 2018-19) which was allowed by the Hon'ble Commission in the FY 2018-19 was reversed by the Petitioner itself in the year 2019-20 in accordance with the regulatory scheme.
- iv. That it is further submitted that the Table No. 6.11 in the petition No. 03 of 2021 shows Total expense for power purchase from CGS as Rs. 3856.21 crore which was arrived after deducting the expenses towards banking provision as mentioned above. The entry of other charges in the Table 6.11 under the CGS head amounting to Rs. 384.55 crore is towards the monthly power purchase expense for the month of March-2020 and this does not include any provision expense towards the banking charges/banked units.
- v. From the above it is clear that the amount towards banking provisions which was allowed to the Petitioner in the true up of FY 2018-19 was returned by the Petitioner itself in the true of FY 2019-20. However, the Hon'ble Commission in Chapter 6 (6.11) of the order dated 13.04.2022 in Petition No. 75 of 2021 while dealing the points raised by the Petitioner, has erroneously again deducted the amount of Rs. 488.69 crore from the expense cost of the Petitioner. This means that the amount towards charges pertaining to banking provision was deducted twice as it was deducted primarily by the Petitioner itself in the true up of the FY 2019-20 and then subsequently, it was re- deducted by the Hon'ble Commission in the Petition No. 75 of 2021.
- vi. This was brought in the notice of the Hon'ble Commission by the Petitioner in review petition No. 51 of 2022. However, the Hon'ble Commission had stated that the same will be considered in the tariff order for 2023-24. Subsequently, the Hon'ble Commission in the Petition No. 95 of 2022 had decided upon the issue erroneously by holding that the amount of Rs. 384.55 crore claimed by the Petitioner under the head of 'Other Charges' in FY 2019-20 (Table 6.11 of the tariff order dated 02.08.2021) was towards the banking provision which is incorrect. The amount of Rs. 384.55 crore reflecting the Table 6.11 was towards the provisional monthly power purchase expense for the Month of March-2020 and had nothing to do with the provision towards banking expense. Moreover, the petitioner had itself deducted the amount allowed to it towards the provisional banking expense in the previous year while filing the true up for the FY 2019-20.
- vii. That in view of the above, the deduction made by the Hon'ble Commission in the impugned tariff order dated 28.03.2023 pertaining to the allowed claim of Rs. 488.69 crore in the true up of FY 2018-19 is incorrect and made due to oversight and therefore, it is requested that the same maybe reversed.



- viii. Further, apart from the above error committed in the tariff order, the Hon'ble Commission has also deducted the expenses towards other charges that the Petitioner had incurred for procuring concessional power from thermal generating stations for the mere reason that segregation of the same was not provided by the Petitioner. However, such query was not raised to Petitioner during technical validation sessions and therefore, the Petitioner could not submit the same. Thus, it is requested that the impugned order be amended to allow such amount of expenditure incurred towards additional charges paid to thermal generating station.
- ix. The hon'ble Commission has also committed slight oversight by wrongly calculating the carrying cost to be recovered by the Petitioner and has further wrongly taken target AT&C losses as 16% during the FY 2020-21 even when the RDSS scheme to which Petitioner is a party projects the target line losses to be 17.94%.
- x. That above discussed parameters were wrongly decided due to oversight in the impugned order and thus there is error apparent on the face of records. Therefore, it is requested that the impugned order maybe review to the extent sought in the instant petition.

**5.3 The Provision of the Act or regulation under which the proceeding initiated/relief claimed:**

The relief is claimed under Order 47 Rule-1 of Civil Procedure Code read with section 94(1)(f) of Electricity Act 2003 and Rule 33(a) of CSERC (details to be furnished by licensee or generating company for determination of tariff and manner of making application) Regulation, 2004.

**5.4 Statement of jurisdiction:**

Hon'ble Commission has jurisdiction to consider the review petition according to section 94(1)(f) of Electricity Act 2003 read with Order 47 Rule-1 of Civil Procedure Code 1908.

**5.5 Facts of the case in details:**

- 5.8.1. That the instant review petition is preferred against the impugned order dated 28.03.2023 passed in Petition No. 95 of 2022 wherein the Hon'ble Commission while determining final true up for FY 2021-22 has made errors apparent on face of records due to oversight due to which the power purchase expenses of the Petitioner as determined by the Hon'ble Commission are falling short of around Rs. 500 crores.
- 5.8.2. It is humbly submitted that the Petitioner herein had initially preferred a review petition against some parameters the Petition No. 03 of 2021 and that review petition was registered as Petition No. 54 of 2021. Further, while deciding the review Petition, the Hon'ble Commission had directed the Petitioner to include the details of such parameters in the tariff determination petition for the subsequent years.
- 5.8.3. That as per the directions of the Hon'ble Commission, the Petitioner herein included the parameters for which it had filed review petition in the tariff determination petition 75 of 2021. However, the contentions of Petitioner were not properly addressed in the Tariff Petitioner bearing Petition No. 75 of 2021 and therefore, the petitioner herein filed another review petition which was registered as Petition No. 51 of 2022. Further, the Hon'ble Commission vide its order dated 05.08.2022 directed the Petitioner to raise the issues raised in review petition in the next year's tariff petition.



5.8.4. That in pursuance of the order of the Hon'ble Commission's order, the Petitioner herein raised the issues raised by it in the Petition No. 95 of 2022 which were decided by the Hon'ble Commission in the impugned order dated 28.03.2023. However, the Hon'ble Commission while deciding the issues raised by the Petitioner relating to double reduction provisional banking charges and other expenses have committed an oversight which has resulted in revenue deficit of around 500 crores to the Petitioner. The parameters which were erroneously decided by the Hon'ble Commission while passing the impugned order are provided below for reference-

**A. Misinterpreting the provisional monthly power purchase expense for the month of May 2020 with the provisional expenses sought for banking charges:**

- i. This review petition arises from impugned common tariff order dated 28.03.2022 in Petition No. 95/2022(T), wherein the Hon'ble Commission, while adjudicating the contentions raised by the Petitioner in Review Petition No. 51 of 2022 relating to the excess deduction pertaining to the provision of banking charges, has due to oversight committed an error and held that it has allowed the provisioning of Rs. 384.55 crore towards banking provisions in Petition No. 03 of 2021 even when the amount of Rs. 384.55 crores which was allowed by the Hon'ble Commission in petition No. 03 of 2021 was towards the provisional power purchase expense of CSPDCL pertaining to March-2020 against the power purchased by Petitioner from Central Generating Station. Further, this amount was completely unrelated with the provision made towards the banking expenses.
- ii. It is humbly submitted that the Petitioner in the tariff petition No. 03 of 2021 has sought an amount of Rs. 488.69 crore towards the Banking provisions for the true up of FY 2018-19. This was included in the head of 'other charges' of power purchase expense from Central Generating Station. The amount as reflected in Table No. 6.10 showing power purchase cost of FY 2018-19 reflects amount of Rs. 194.55 crore which is inclusive of the Rs. 488.69 crore.
- iii. The Commission had allowed the same for the FY 2018-19. Further, since the provision towards banking expenses is not be considered for regulatory process, the Petitioner while providing the power purchase expense for the true up of FY 2019-20 subtracted the expenses allowed by the Hon'ble Commission towards banking provision. This meant that the amount of Rs. 388.55 crores (actual expense against banking in the FY 2018-19) which was allowed by the Hon'ble Commission in the FY 2018-19 was reversed by the Petitioner itself in the year 2019-20 in accordance with the regulatory scheme.
- iv. That it is further submitted that the Table No. 6.11 in the petition No. 03 of 2021 shows Total expense for power purchase from CGS as Rs. 3856.21 crore which was arrived after deducting the expenses towards banking provision as mentioned above. The entry of other charges in the Table 6.11 under the CGS head amounting to Rs. 384.55 crore is towards the monthly power purchase expense for the month of March-2020 and this does not include any provision expense towards the banking charges/banked units.



- v. From the above it is clear that the amount towards banking provisions which was allowed to the Petitioner in the true up of FY 2018-19 was returned by the Petitioner itself in the true up of FY 2019-20. However, the Hon'ble Commission in Chapter 6 (6.11) of the order dated 13.04.2022 in Petition No. 75 of 2021 while dealing the points raised by the Petitioner, has erroneously again deducted the amount of Rs. 488.69 crore from the expense cost of the Petitioner. This means that the amount towards charges pertaining to banking provision was deducted twice as it was deducted primarily by the Petitioner itself in the true up of the FY 2019-20 and then subsequently, it was re- deducted by the Hon'ble Commission in the Petition No. 75 of 2021.
- vi. This was brought in the notice of the Hon'ble Commission by the Petitioner in review petition No. 51 of 2022. However, the Hon'ble Commission had stated that the same will be considered in the tariff order for 2023-24. Subsequently, the Hon'ble Commission in the Petition No. 95 of 2022 had decided upon the issue erroneously by holding that the amount of Rs. 384.55 crore claimed by the Petitioner under the head of 'Other Charges' in FY 2019-20 (Table 6.11 of the tariff order dated 02.08.2021) was towards the banking provision which is incorrect. The amount of Rs. 384.55 crore reflecting the Table 6.11 was towards the provisional monthly power purchase expense for the Month of March-2020 and had nothing to do with the provision towards banking expense. Moreover, the petitioner had itself deducted the amount allowed to it towards the provisional banking expense in the previous year while filing the true up for the FY 2019-20.
- vii. That in view of the above, the deduction made by the Hon'ble Commission in the impugned tariff order dated 28.03.2023 pertaining to the allowed claim of Rs. 488.69 crore in the true up of FY 2018-19 is incorrect and made due to oversight and therefore, it is requested that the same maybe reversed.

**B. Deduction of 'Additional charges' made by the Petitioner in purchasing power from the thermal generating stations.**

- i. That the Hon'ble Commission in the impugned order has dealt with the power purchase expenses incurred by the Petitioner in purchasing concessional power from various thermal power stations in the FY 2021-22. Further, the Hon'ble Commission in page 162 of the impugned order has held that since the Petitioner failed to provide any explanation regarding the claimed 'additional charges', to the tune of Rs. 95.16 crores, the same are disallowed. However, the explanation pertaining to the additional charges was not sought by the Hon'ble Commission during technical validation session and therefore, the explanation towards such charges were not provided for by the Petitioner. However, the Petitioner has prepared a detailed chart showcasing the "Additional charges" incurred by it in purchasing concessional power from various thermal generating stations.
- ii. That since the Petitioner has genuinely incurred expenses towards 'additional charges' while purchasing concessional power and the same were disallowed by the Hon'ble Commission, It is requested that the review maybe allowed, and the



Petitioner may be allowed the recovery of such 'Additional Charges' to the tune of Rs. 95.16 crores incurred by it in procuring power from thermal stations.

c. **Erroneous calculation of carrying cost:**

- i. That it is humbly submitted that the Hon'ble Commission in page 182 (Table 8.26) of the impugned order, has provided calculation for the carrying cost in approving the revenue gap for the FY 2021-22 of the Petitioner.
- ii. That as per the data provided in the Table 8.26, the Petitioner was allowed closing revenue gap to the tune of Rs. 3837.25 crore against the sought Rs. 5319.67 crore. Further, the Hon'ble Commission has determined the carrying cost by taking the stand-alone revenue gap as the base instead of closing revenue which prima facie is error apparent on face of record and thus the impugned order is requested to be reviewed.
- iii. That it is humbly submitted that the Hon'ble Commission has been calculating carrying cost keeping the closing revenue gap as base each year and had even applied the same principle in the last tariff orders however, in the impugned tariff order, the Hon'ble Commission while determining carrying cost for the FY 2020-21 has wrongly taken stand-alone revenue gap as base which is incorrect and thus it is requested that the same maybe reviewed.
- iv. That the carrying cost determined by the Hon'ble Commission will be increased by approximately 3 times if it is redetermined in view of the applicable regulations keeping closing revenue as the base for calculating it. However, by determining the carrying cost on the basis of standalone revenue gap, the Hon'ble Commission has committed an error due to which Petitioner is facing huge losses.
- v. That in view of the above, it is humbly requested that the carrying cost allowed to the Petitioner maybe re-determined in accordance with the provisions taking closing revenue gap as the base.

d. **Erroneous adoption of target loss for the FY 2021-22:**

- i. That the Hon'ble Commission in page 159 of the impugned order has determined the sharing of loss on account of underachievement by the Petitioner. Further, the Hon'ble Commission in S. No. 6 of the Table 8.6 has taken the target distribution losses as 16%.
- ii. That it is humbly submitted that as per the amended Clause 71.3 of the MYT regulations, 2015, a new proviso has been added which specify that if the state utility enters into an agreement with the Government of India and the energy loss trajectory agreed in the agreement is contradictory to the target energy losses provided in the Regulations, the target energy losses provided in such agreement shall prevail.
- iii. That the Petitioner herein had entered into Revamped Distribution Sector Scheme (RDSS) with REC Limited which is the nodal authority for implementation of RDSS scheme. Further, under the RDSS scheme, the baseline target loss for the FY 2021-22 is provided as 17.94%.
- iv. That since, the Petitioner is part of a Central scheme for improving distribution infrastructure, the losses as specified in such scheme shall be applicable to it. Thus,



the target distribution losses for the FY 2021-22 would be equal to 17.94% rather than 16% as provided in the impugned tariff order. Taking target loss as 17.94% in accordance with the applicable regulations, the amount of under achievement to be borne by Petitioner would come to around Rs. 30.36 crore against the amount of Rs. 137.19 crore as specified in the impugned order.


#### **5.6 Grounds Urged:**

- 5.9.1. For the reasons that Hon'ble commission has misinterpreted the amount claimed towards provisional power purchase expense incurred by the Petitioner in purchasing power from Central Generating Station in the month of March-2020 as the provisional banking charges.
- 5.9.2. For the reasons that the Petitioner had already deducted the provisional banking charges allowed to it in FY 2018-19 in the true-up of the FY 2019-20. However, the Hon'ble Commission has re-deducted the same thereby resulting in revenue deficit of the Petitioner.
- 5.9.3. For the reason that the Hon'ble Commission has wrongly calculated the carrying cost by taking the stand-alone revenue gap as the base even when the applicable regulation provides that the closing revenue gap shall be taken as base for calculating carrying cost.
- 5.9.4. For the reason that Petitioner is part of the central RDSS scheme which provides that the target distribution losses for the FY 2021-22 will be 17.94% however, the Hon'ble Commission in the impugned order has taken target distribution losses as 16% due to which the quantum of Petitioner's share in loss sharing has increased on multiple folds.

#### **5.7 Relief sought.**

On the basis of the submissions made above, it is humbly prayed that the Hon'ble Commission-

- a. May kindly allow the instant review petition.
- b. Allow power purchase expenses of Rs.388.54 Cr. Which was wrongly deducted by the Hon'ble Commission.
- c. Allow the expenses to the tune of Rs. 95.15 crore incurred by the Petitioner under the heads of "Additional Charges" for procuring concessional power in the FY 2021-22.
- d. To re-determine the carrying cost against the approved revenue gap for the FY 2021-22 by taking the closing gap revenue as the base.
- e. To re-determine the sharing of gains and losses by taking the target distribution losses as 17.94%.



## 6. FINAL TRUE UP OF FY 2022-23

### Number of Consumers, Connected load and Energy Sales within State

- 6.1 CSPDCL served nearly 61 Lakh consumers at LT level and has more than 3500 consumers at HV and EHV levels. CSPDCL further aims to manage the energy procurement and sales in the most efficient manner so that conflicting objectives of availability and cost are balanced to the benefit of consumers.
- 6.2 The final number of consumers under various categories for FY 2022-23 has been tabulated below:

**Table 1 Category Wise Number of Consumers in FY 2022-23 (Nos.)**

S No.	Consumer Category	Final True Up
<b>A</b>	<b>LV</b>	<b>61,49,824</b>
1	Domestic Including BPL Consumers	49,21,589
2	Non-Domestic (Normal Tariff)	3,17,802
3	Non-Domestic (Demand Based)	80,745
4	Agriculture Metered	5,15,993
5	Agriculture allied	4,090
6	LT Industry	37,444
7	Public Utilities	48,062
8	IT Industry	9
9	Temporary	2,24,090
<b>B</b>	<b>EHV + HV</b>	<b>3,599</b>
1	Railway Traction	26
2	Mines (Coal & Others)	162
3	Other Industry & General Purpose Non-Industrial	2,526
4	Steel Industries	559
5	PWW, Irrigation & Agriculture allied activities	217
6	Residential Purpose	68
7	Start-up Power Tariff	31
8	Industries related to manufacturing of equipment for power generation from RE Sources	6
9	IT Industries	4
10	Temporary	-
<b>C</b>	<b>Total (A+B)</b>	<b>61,53,423</b>

6.3 CSPDCL humbly requests Hon'ble Commission to approve the actual number of consumers as 61,53,423 for FY 2022-23.

6.4 The connected load for FY 2022-23 has been tabulated below:



**Table 2 Category wise Connected Load in FY 2022-23 (MW)**

S No.	Consumer Category	Final True Up
<b>A</b>	<b>LV</b>	<b>7,578.07</b>
1	Domestic Including BPL Consumers	3,581.61
2	Non-Domestic (Normal Tariff)	338.64
3	Non-Domestic (Demand Based)	814.52
4	Agriculture Metered	1,320.97
5	Agriculture allied	30.32
6	LT Industry	817.93
7	Public Utilities	176.51
8	IT Industry	0.72
9	Temporary	496.85
<b>B</b>	<b>EHV + HV</b>	<b>3,793.13</b>
1	Railway Traction	418.70
2	Mines (Coal & Others)	235.53
3	Other Industry & General Purpose Non-Industrial	1,035.94
4	Steel Industries	1,949.14
5	PWW, Irrigation & Agriculture allied activities	79.73
6	Residential Purpose	59.12
7	Start-up Power Tariff	11.40
8	Industries related to manufacturing of equipment for power generation from RE Sources	2.44
9	IT Industries	1.15
10	Temporary	-
<b>C</b>	<b>Total (A+B)</b>	<b>11,371.20</b>

6.5 CSPDCL humbly requests Hon'ble Commission to approve connected load of 11,371.20 MW for FY 2022-23.

6.6 Category wise sales for FY 2022-23 in MU is tabulated below:

**Table 3 Category Wise Sales in FY 2022-23 (MU)**

S No.	Consumer Category	Tariff Order dated 13.4.2022	Final True Up
<b>A</b>	<b>LV</b>	<b>16,190.38</b>	<b>15,837.21</b>
1	Domestic Including BPL Consumers	7,255.63	6,261.98
2	Non-Domestic (Normal Tariff)	285.29	312.87
3	Non-Domestic (Demand Based)	787.50	875.20
4	Agriculture Metered	5,454.33	5,455.78
5	Agriculture allied	32.98	34.27
6	LT Industry	617.09	744.84
7	Public Utilities	489.35	688.81
8	IT Industry	1.06	0.94
9	Temporary	1,267.14	1,462.53
<b>B</b>	<b>EHV + HV</b>	<b>11,312.82</b>	<b>13,266.78</b>
1	Railway Traction	1,176.58	1,255.15
2	Mines (Coal & Others)	693.33	703.85

S No.	Consumer Category	Tariff Order dated 13.4.2022	Final True Up
3	Other Industry & General Purpose Non-Industrial	1,892.64	2,260.78
4	Steel Industries	7,114.88	8,638.50
5	PWW, Irrigation & Agriculture allied activities	218.62	217.79
6	Residential Purpose	184.17	175.31
7	Start-up Power Tariff	21.94	8.90
8	Industries related to manufacturing of equipment for power generation from RE Sources	3.12	4.55
9	IT Industries	7.53	1.93
10	Temporary	-	-
C	<b>Total (A+B)</b>	<b>27,503.20</b>	<b>29,103.99</b>

6.7 CSPDCL submits that actual sales recorded in FY 2022-23 is 29,103.99 MU. CSPDCL requests Hon'ble Commission to approve the sales for FY 2022-23 as 29,103.99 MU which consists of 15,837.21 MU sales to LT consumers and 13,266.78 MU to HT Consumers.

#### **Energy Balance and Distribution Loss**

6.8 CSPDCL submits that Clause 98.1, 98.2 and 98.3 of CSERC Tariff Regulations, 2021 stipulates as under:

*"98. ENERGY LOSSES FOR DISTRIBUTION SYSTEM*

*98.1. The energy loss for 33 KV and below voltage level, shall be computed as per relevant provision(s) of the State Grid Code 2011 as amended from time to time. The difference between the energy injected at 33 KV voltage level and the sum of energy sold to all its consumers (retail and open access), at voltage level 33 KV and below shall be the energy loss for the 33KV and below system. The same shall be considered for the gain/ loss at the time of true up.*

*98.2. Energy sold shall be the sum of metered sales and assessed unmetered sales, if any, based on prudence check by the Commission.*

*98.3. Energy Loss trajectory for distribution licensee shall be as specified by the Commission in the tariff order."*

6.9 In line with the provisions of above stated extracts of the CSERC MYT Regulations, CSPDCL has calculated the Distribution Losses as below for FY 2022-23:



**Table 4 Energy Balance for FY 2022-23**

S. No.	Particulars	Claimed in True Up for 2022-23
A	Input: Total Energy available (MU)	34,706.43
	i. Available at 33 kV outgoing feeder	29,436.43
	ii. Injected by CPP/IPP at 33/11kV S/s	302.85
	iii. Available a EHV Level	4,967.15
B	Output: Total Energy Sales (MU)	29,104.28
	i. LV Sales	15,837.21
	ii. HV Sales	8,299.92
	iii. EHV Sales	4,967.15
C	Energy Loss below 33 kV (MU) $\{(A_i + A_{ii}) - (B_i + B_{ii})\}$	5,602.15
D	Energy Loss below 33 kV (%) $\{C/(A_i+A_{ii})*100\}$	18.84%
E	Distribution Loss Including EHV Sales (MU) (A - B)	5,602.15
F	Distribution loss including EHV Sales (E/A*100)	16.14%

6.10 Accordingly, the Energy Balance as per the CSERC Tariff Regulations, 2021 is shown as under:

**Table 5 Energy Balance for FY 2022-23**

S No.	Particulars	Formula	Final True Up
1	LV Sales (A)	A	15,837.21
2	HV Sales (B)	B	8,299.92
3	Total Below EHV Level (A+B)	C=A+B	24,137.13
4	Distribution Loss below 33 kV (in %)	D=E/F	18.84%
5	Distribution Loss below 33 kV (in MU) (As per Energy Audit)	E	5,602.15
6	Gross Energy requirement at 33 kV Level	F=C+E	29,739.28
7	Less: Direct Input to distribution at 33 kV Level	G	302.85
8	Net Energy Input required at Distribution Periphery at 33 kV Level	H=F-G	29,436.43
9	Sales to EHV consumers	I	4,967.15
10	Net energy requirement at Distribution periphery	J=H+I	34,403.58
11	Distribution loss including EHV Sales (MU)	K	16.14%

6.11 CSPDCL humbly requests the Hon'ble Commission to approve the distribution losses as calculated in the above table. The detailed calculations have been provided in the technical formats R2A and R3.

### Incentive / Penalty for Under Achievement of Distribution Loss

6.12 The distribution loss and computation of incentives/ penalty with regards to achievement of 33 KV distribution loss level for FY 2022-23 is shown in the table below:

**Table 6 Incentive / Penalty of Under Achievement of Distribution Losses**

Particular	Legend	Figure
Energy Input Considered for Distribution Business (MU)	A	29,739.28
Total Sales (MU)	B	29,103.99
Power Purchase Cost (Rs. Crore)	C	17,881.94
Gross Power Purchase Quantum (MU)	D	39,325.49
PPC Excluding Transmission Charges (Rs. Crore)	E	15,810.15
Power Sale to Marwa quantum (MU)	F	-
Less Power Sale of Marwa (Rs. Crore)	G	-
Net PPC for Loss Sharing (Rs. Crore)	H=E-G	15,810.15
Per Unit Power Purchase Cost (Rs./kWh)	I=H/D*10	4.02
Target Loss (%)	J	15.67%
Actual Distribution Loss (%)	K	18.84%
Under Achievement	L=K-J	3.17%
MU Shortfall	M=L*A	942.00
Loss Due to Under achievement (Rs. Crore)	N=M*I*1000/100	378.72
CSPDCL Share (Rs. Crore)	O=N*2/3	252.48

6.13 CSPDCL submits that as per the loss trajectory approved vide Commission's Order dated 13.04.2022 for the FY 2022-23 is 15.67%. CSPDCL has computed the under achievement which demonstrates a deduction of Rs. 252.48 Crore from ARR.

### Power Purchase Expenses

6.14 CSPDCL purchases power from difference sources such as Central Generating Stations, CSPGCL generating stations, Renewable energy sources such as Bio-mass, Solar, Wind and other RE sources, Concessional power from IPPs' through CSPTCL and other sources such as power exchanges etc. to meet the energy requirement of the State.

6.15 CSPDCL submits that the net power purchase cost as per final accounts is Rs. 16,634.02 Cr after removing the delayed payment surcharge.

6.16 CSPDCL further submits that it has purchased 673.62 MU through banking arrangement and has sold 360.54 MU through banking arrangement, the cost of both the transactions has been considered as NIL. This is in line with the judgement of Hon'ble APTEL dated 01<sup>st</sup> July 2014 in Appeal No.220 of 2013. The relevant extract of the judgement is reproduced below;



*"In the present case, the electricity is actually available to distribution licensee during financial year when it requires the electricity. The said electricity has been accounted for and has been supplied to the consumers but the same ought not to be taken for calculating the total quantum of electricity available with the distribution licensee during the year only for the purposes of calculation of APPC. We may further observe that there can be no notional cost attributed to such banked energy and the cost, if any, has to be included in the total power purchase cost of the distribution licensee when the corresponding electricity is supplied to the third party. In our view, the State Commission has correctly taken the price of the banked energy as available with the distribution licensee/HPSEBL at a zero cost. The banking is a continuous transaction. The principle of banking of energy is that the electricity received by the distribution licensee is to be returned. When the banked energy is rolled over, its return is only postponed. It is not that electricity is not to be received. The quantum of electricity to be returned would only increase in the subsequent years in future to compensate for the roll over and thereby increase the APPC substantially."*

**6.17** The details of power purchase expenses incurred including transmission charges and net of interstate sales during FY 2022-23 are as provided in the table below:

Table 7 Power Purchase Expenses FY 2022-23

S No.	Source (2021-22)	Tariff Order Dated 13.4.2022			Final True Up			Difference	
		Quantum (MU)	Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (MU)	Cost (Rs. Cr.)
		(A)	(B)	(C)	(D)	(E)	(F)	(A-D)	(B-E)
1	CGS	15,125.67	5,047.07	3.34	15,928.93	7,006.82	4.40	(803.26)	(1,959.75)
a	NTPC sub-total	14008.29	4442.42	3.17	14,558.66	6,439.47	4.42	(550.37)	(1,997.05)
b	NTPC-SAIL (NSPCL)	271.13	100.27	3.70	318.80	141.39	4.43	(47.67)	(41.12)
c	NPCIL	295.36	95.24	3.22	362.68	123.80	3.41	(67.32)	(28.56)
d	Others	550.89	409.14	7.43	688.79	302.17	4.39	(137.90)	106.97
2	State Generating Stations	19,094.39	6,716.87	3.52	16,483.62	6,018.72	3.65	2,610.77	698.15
i	CSPGCL-Thermal	18721.81	6647.26	3.55	16,443.61	6,006.05	3.65	2,278.20	641.21
ii	CSPGCL-Renewables	372.58	69.61	1.87	40.01	12.67	3.17	332.57	56.94
3	Short Term Purchase	0.00	0.00	0.00	479.254	424.10	8.85	(479.25)	(424.10)
4	Concessional Power - Through CSPTrdCL	2,395.56	444.52	1.86	2,351.96	675.64	2.87	43.60	(230.92)
5	Others - Renewables	4,551.45	1,569.03	3.45	2,805.10	1,587.15	5.66	1,746.35	(18.19)
i	Biomass	886.58	610.52	6.89	815.35	622.09	7.63	71.23	(11.57)
ii	Solar	1994.01	498.50	2.50	1,479.11	575.59	3.89	514.90	(77.16)
iii	Hydel/Other RE	464.72	158.47	3.41	510.64	359.06	7.03	(45.92)	(200.59)
iv	Solar and Non-Solar RECs								
v	Other Charges- New RE	1206.14	301.54	2.50		30.41		1,206.14	271.13
vi	SECI							0.00	0.00
6	Unscheduled Power	0.00	0.00	0.00	31.29	4.19	1.34	(31.29)	(4.19)
7	Transmission Charges		1845.34			2071.79		0.00	(226.45)
i	Interstate Transmission Charges		724.69			1057.26		0.00	(332.59)



S No.	Source (2021-22)	Tariff Order Dated 13.4.2022				Final True Up				Difference	
		Quantum (MU)	Cost (Rs. Cr)	Rate (Ps./kWh)	Quantum (MU)	Cost (Rs. Cr)	Rate (Rs./kWh)	Quantum (MU)	Cost (Rs. Cr.)	Quantum (MU)	Cost (Rs. Cr.)
		(A)	(B)	(C)	(D)	(E)	(F)	(A-D)	(B-E)		
ii	Intrastate Transmission Charges		1102.55			1006.69			0.00		95.86
iii	CSLDC Charges		18.1			7.84			0.00		10.26
vi	Less: Rebate in AFC on account of COVID 19					0.00			0.00		0.00
8	UI Purchase	0.00	0.00	0.00	569.97	120.99	2.12		(569.97)		(120.99)
9	Border Village	0.00	0.00	0.00	1.74	1.61	9.23		(1.74)		(1.61)
10	Banking Purchase	0.00	0.00	0.00	673.62	0.00	0.00		(673.62)		0.00
11	Reactive Charges	0.00	0.00	0.00	0.00	0.58	0.00		0.00		(0.58)
12	Gross Power Purchase Cost	41,167.07	15,622.83	3.79	39,325.49	17,881.94	4.55		1,841.58		(2,259.11)
13	Less: Adjustments	0.00	0.00	0.00	3,379.06	1,247.91	3.69		(3,379.06)		(1,247.91)
i	Sale to Telangana				0.00	0.00	0.00		0.00		0.00
ii	Sale of Surplus Power				2,670.32	1,229.47	4.60		(2,670.32)		(1,229.47)
iii	UI Sales				348.20	18.45	0.53		(348.20)		(18.45)
14	Banking Sale				360.54	0.00			(360.54)		0.00
15	RRAS Settlement					29.65			0.00		(29.65)
16	Net Power Purchase Cost	41,167.07	15,622.83	3.79	35,946.43	16,634.02	4.63		5,220.64		(1,011.19)

- 6.18 CSPDCL would like to submit that it has not claimed any expenditure towards delayed payment surcharge under the head of Gross power purchase.
- 6.19 CSPDCL humbly requests Hon'ble Commission to approve power purchase expenses of Rs. 16,634.02 Cr (including transmission charges of Rs. 2071.79 Cr) for FY 2022-23 as per the finalized accounts against Rs. 15,622.83 Cr approved assessment made by Hon'ble Commission in tariff Order 13.04.2022. CSPDCL further submits that aforesaid expenses are worked out after adjusting revenue towards surplus sale and other receipts towards GBI claim, rebates and UI sales.
- 6.20 The details of power purchase expenses showing power purchase cost, interstate transmission charges SLDC charges are given below:

**Table 8 Summary of Power Purchase Cost for FY 2022-23**

Sr. No	Particulars	Tariff Order dtd 13.4.2022	Final True Up	Difference
1	Net Power Purchase Cost	15,622.83	16,634.02	(1,011.09)
2	Interstate Transmission charges (PGCIL)	724.69	1057.26	(332.57)
3	Intrastate Transmission Charges	1102.55	1006.69	95.86
4	CSLDC Charges	18.10	7.84	10.26

**Operation and Maintenance Expenses**

- 6.21 As per the CSERC MYT Regulations, 2021, the Operation and Maintenance Expenses are elaborated in clause 83.4.1 and 83.4.2, as below:

*"83.4.1. Human Resource (HR) Expenses*

*(a) HR expenses shall include:*

- (i) employees costs;*
- (ii) impact of Pay revision;*
- (iii) manpower deployed on outsourcing basis;*

*(b) The Commission shall stipulate a separate trajectory for each of the components of HR expenses for the Control Period.*

...

*83.4.2. Maintenance and General (M&G) Expenses*

*(a) Maintenance and General (M&G) expenses shall include:*

- (i) Administrative and General (A&G) expenses;*
- (ii) Repair and Maintenance (R&M) expenses*

*(b) The Commission shall stipulate a separate trajectory for each of the components of M&G expenses viz., R&M and A&G expenses for the Control Period."*



6.22 As per the CSERC MYT Regulations, 2021, the Operation and Maintenance Expenses includes HR Expenses and M&G (Maintenance and General) Expenses.

6.23 With regards to HR Expenses which comprises of employee cost, impact of wage revision and manpower cost on outsourcing basis, CSPDCL submits that the actual HR Expenses for FY 2022-23 per the final accounts are tabulated below:

**Table 9 HR Expenses FY 2022-23**

S No.	Particular	Tariff Order Dtd. 13.4.2022	Final True Up (Rs. Cr)	Difference (Rs. Cr)
1.	Employee Expenses (Including Employee deployed on Outsourcing basis)	1245.27	1,156.07	(89.20)

6.24 CSPDCL request Hon'ble Commission to approve Rs 1,156.07 Cr. for Employee expenses for FY 2022-23 based on final accounts as submitted above. The detailed breakup of employee expenses is provided in the technical format sheet no. F-15 and F-16 respectively.

6.25 CSPDCL most humbly likes to submit that 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. CSPDCL would like to submit the details of expenditures incurred towards each of the above service in the table given below. The same is considered under employee expense as per the MYT Tariff Regulations 2021.

**Table 10 Details of Expenses on Contract Manpower (Rs. Cr)**

S. No.	Particulars	Final True Up	
		A&G Exp	R&M Exp
1	Security services		2.43
2	Meter reading and other manpower service contracts	133.86	
3	33/11 kV operations & Other manpower service contracts		71.98
4	Grand Total	133.86	74.41

6.26 CSPDCL submits that the A&G and R&M expenses for FY 2022-23 based on the final accounts are tabulated below:

**Table 11 A&G and R&M Expenses for FY 2022-23 (As per Final Accounts)**

S No	Particular	Tariff Order Dated	Final True Up	Difference
		13.4.2022		
1	Net A&G Expenses	88.88	122.19	(33.31)
2	Net R&M Expenses	255.87	319.59	(63.72)
	<b>Total</b>	<b>344.75</b>	<b>441.78</b>	<b>(97.03)</b>

\* The figures approved by Hon'ble Commission in Tariff Order dated 13.04.2022 were normative A&G and R&M Expenses.

6.27 CSPDCL requests Hon'ble Commission to approve Rs.441.78 Cr as A&G and R&M expenses for FY 2022-23 based on final accounts as calculated above. The detailed breakup of R&M and A&G expenses is provided in technical format sheet no. F-14 and F-17 respectively.

**Sharing of Gain and (Losses) of O&M Expenses**

6.28 As per Clause 57.4 (c) and (d) of CSERC Tariff Regulations 2021:

"83.4.2. Maintenance and General (M&G) Expenses

(a) Maintenance and General (M&G) expenses shall include:

(i) Administrative and General (A&G) expenses;

(ii) Repair and Maintenance (R&M) expenses

(b) The Commission shall stipulate a separate trajectory for each of the components of M&G expenses viz., R&M and A&G expenses for the Control Period.

(c) The A&G expenses (excluding expenses towards outsourcing manpower) (A&G) and R&M expenses (excluding expenses towards outsourcing manpower) (R&M) for the base year i.e. FY 2020-21, shall be derived on the basis of the normalized average of the actual A&G expenses (excluding expenses towards outsourcing manpower) and R&M expenses (excluding expenses towards outsourcing manpower), respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2021-22, subject to prudence check by the Commission. Any other expense of non- recurring nature shall be excluded while determining normalized average for the previous five (5) years.

(d) The normalization of R&M expenses shall be done by applying last five year average increase/decrease in Wholesale Price Index (WPI) of all commodities on year to year basis. The average of normalized net present value for FY 2016- 17 to FY 2020-21, shall then be used to project base year value for FY 2021-22.

(e) For normalization of A&G expenses shall be estimated by applying last five year average increase/decrease in Inflation to be considered on the basis of 40% weightage of WPJ and



60% weightage of CPI respectively on year to year basis. The average of normalized net present value for FY 2016-17 to FY 2020-21, shall then be used to project base year value for FY 2020-21.

(f) The projected base year value shall be escalated by the above inflation rate to estimate the A&G and R&M expenses for each year of the control period.

(g) Wholesale Price Index numbers of all commodities shall be as per Office of Economic Advisor, Ministry of Commerce & Industry, Government of India (Base Year: 2011-12 Series);

(h) Consumer Price Index for Industrial Workers (all India) shall be as per Labour Bureau, Government of India (Base Year: 2001=100).

(i) At the time of true up, the A&G and R&M expenses shall be considered after taking into account the actual inflation instead of projected inflation for that period."

6.29 Accordingly, CSPDCL submits that it has calculated the normative A&G and R&M expenses for the FY 2022-23 by escalating the normative A&G and R&M expenses of FY 2021-22 with the increase in escalations indexes.

6.30 The increase in WPI index in FY 2022-23 with respect to FY 2021-22 is 9.41%. The detail working of WPI escalation has been provided in Annexure A2.

6.31 Accordingly, normative A&G and R&M Expenses are tabulated below:

**Table 12 Normative A&G and R&M Expenses for FY 2022-23 (Rs. Cr.)**

S No.	Particular	Tariff Order Dated	Final True Up
		13.4.2022	
1.	A&G Expenses	88.88	90.55
2.	R&M Expenses	255.87	264.61

6.32 The gain or loss on O&M expenses based on the above calculations is tabulated below:

**Table 13 Sharing of (Gain)/Loss for FY 2022-23 (Rs. Cr.)**

Particular (Petition)	Revised Normative	Actual Expenses	Efficiency (Gain)/Loss	Entitlement of (Gain)/Loss	
				CSPDCL	Consumers
A&G Expenses	90.55	122.19	31.64	21.09	10.55
R&M Expenses	264.61	319.59	54.98	36.65	18.33
<b>Total</b>	<b>355.16</b>	<b>441.78</b>	<b>86.62</b>	<b>57.75</b>	<b>28.87</b>

6.33 CSPDCL would like to submit that it has computed sharing of (gain)/Loss after deducting actual expenses incurred towards engagement of outsourced labour to perform distribution business in

lieu of amendments considered by Hon'ble Commission in present MYT Regulations, 2021. The expenses towards outsourced manpower expenses are considered under the head HR expenses.

6.34 In pursuance to aforesaid submissions, CSPDCL humbly submits Hon'ble Commission to approve the sharing of efficiency loss of Rs. 57.75 Cr of CSPDCL for FY 2022-23.

#### **Contribution to Pension and Gratuity**

6.35 CSPDCL submits that Hon'ble Commission in its Tariff Order dated 13 April 2022 allowed contribution to Pension and Gratuity fund as Rs. 702.18 crore. In addition to the above the Commission vide its Order dated 13.4.2022 has allowed an impact of Rs. 83.51 Crore on account of under-statement of contribution to Pension and Gratuity Trust. CSPDCL would like to submit that it has contributed the same amount towards pension and gratuity in the FY 2022-23 as shown in table below:

**Table 14 Contribution to Pension and Gratuity for FY 2022-23 (Rs. Cr.)**

<b>S No.</b>	<b>Particulars</b>	<b>Tariff Order Dated 13.4.2022</b>	<b>Final True Up</b>	<b>Difference</b>
1.	Pension and Gratuity	785.69	785.69	0.00

6.36 CSPDCL thus humbly pleads Hon'ble Commission to approve the contribution to Pension and Gratuity for FY 2022-23 as Rs. 785.69 Cr.

#### **Capital Structure for the FY 2022-23**

6.37 The capital structure for the FY 2022-23 has been determined based on following.

- The actual loan addition for FY 2022-23 has been considered as 67.27 Cr based on the final accounts.
- Addition in consumer contribution/grants has been considered Rs. 293.26 Cr. as per the final accounts for FY 2022-23.
- Normative equity addition has been considered based on capital restructuring methodology as approved by the Hon'ble Commission in tariff order dated 12th July 2013.
- GFA addition of Rs. 1,206.44 Cr has been considered as per the final accounts for FY 2022-23.
- In this regard, the Petitioner humbly submits that that in accordance with Regulations all additional capital expenditure which have been admitted and started a fresh from 1.04.2022, the accounting, MIS for tracking such schemes on cash basis has been started. However, for such schemes which have been started in the period before 1.04.2022 and





being spilled over carried out in phased manner, the Petitioner humbly submits the additional expenditure may be considered on accrual basis and not cash basis.

- The Petitioner in case of present Petition has considered the liability amounting to Rs. 90.81 Crore out of Rs. 1297.25 Crore of the total additional capitalization during the year and has accordingly deducted the same from the accrual capitalization of Rs. 1297.25 Crore and has claimed an amount of Rs. 1206.44 Crore as capitalization on cash basis during FY 2022-23.
- The Capital Structure arrived through above methodology is tabulated below:

**Table 15 Capital Structure for FY 2022-23 (Rs. Cr.)**

S No.	Particulars (2021-22)	Legend	Final True Up
1	Gross Fixed Assets (GFA)		
2	Opening GFA	A	11,571.66
3	Opening CWIP	B	2,275.83
4	Opening CAPEX	C=A+B	13,847.49
5	Capitalization during the year	D	1,206.44
6	Closing GFA	E=D+A	12,778.11
7	Closing CWIP	F	1,755.75
8	Closing CAPEX	G=F+E	14,533.86
9	Grants and Consumer Contribution		
10	Opening Grant and Contribution	H	6169.19
11	Consumer contribution/grants during the Year	I	293.26
12	Closing Consumer Contribution	J=H+I	6,462.45
13	Consumer Contribution in Opening GFA	K=H*A/C	5,155.29
14	Consumer Contribution in Closing GFA	L=J*E/G	5,681.76
15	Loan Borrowed		
16	Opening Borrowed Loan	M	3,320.86
17	Loan Borrowed during the year	N	67.27
18	Closing Borrowed Loan	O=M+N	3388.13
19	Borrowed Loan in Opening GFA	P=M*A/C	2,775.08
20	Borrowed Loan in Closing GFA	Q=max(O*E/G,P)	2,978.83
21	Equity		
22	Opening Gross Equity	R=C-H-M	4,357.44
23	Equity Addition During the Year	T=S-R	325.84
24	Closing Gross Equity	S=G-J-O	4,683.28
25	Gross Equity in Opening GFA	U=A-K-P	3,641.30
26	Gross Equity in Closing GFA	V=C-L-Q	4,117.52
27	Average Gross Equity During the year	W=Avg (U,V)	3,879.41

\* Note: The opening figures of GFA, Equity, Grants and loan has been considered as closing figures for FY 2021-22 as approved by Hon'ble Commission in tariff order dated 13.04.2022

6.38 The Accordingly, the grant, loan and equity addition due to capitalization during the year (in line with the provisions of approved capital structure) is shown in the Table below:

**Table 16 Funding Structure of Capitalised Assets in FY 2022-23**

S. No.	Particulars	Final True Up
1	Opening GFA	11,571.66
2	Capitalization during the year	1,206.44
3	Closing GFA	12,778.11
	<b>Funding of Capitalized Assets</b>	
4	Grant	526.47
5	Equity	203.99
6	Debt	475.98
7	Total Capitalization	1,206.44

6.39 The Hon'ble Commission is requested to approve the Capital Structure and funding pattern of capitalized assets for the year FY 2022-23 as per the table above. The detailed breakup of GFA is provided in the technical formats F-2 and F-6 respectively.

**Depreciation**

6.40 CSPDCL submits that it has calculated depreciations in line with the provisions of Regulations 25 CSERC MYT Regulations, 2021.

**Table 17 Depreciation for FY 2022-23 (Rs. Cr)**

S No.	Particular	MYT Order Dated 13.4.2022	Final True Up	Difference
1	Opening GFA	10,069.35	11,571.66	1,502.31
2	Additional Capitalisation during the Year	240.07	1,206.44	966.37
3	Closing GFA	10,309.42	12,778.11	2,468.69
4	Average GFA for the year	10,189.39	12,174.89	1,985.50
5	Depreciation Rates (%)	5.53%	5.51%	(0.00)
6	Gross Depreciation	563.70	671.07	107.37
7	Less: Depreciation on consumer contribution on live assets	226.50	261.76	35.26
8	Less: Depreciation on Fully Depreciated Assets	16.51	22.58	6.07
9	Less: Depreciation on assets converted from loan to grant under UDAY	46.20	46.20	-
10	<b>Net Depreciation</b>	<b>274.49</b>	<b>340.54</b>	<b>66.05</b>



6.41 CSPDCL thus humbly pleads Hon'ble Commission to approve the Depreciation expenses of Rs. 340.54 Cr for the FY 2022-23. The detailed breakup of depreciation is provided in Technical Formats F-7 and F-8 respectively.

#### **Interest and Finance Charge**

6.42 CSPDCL submits that it has computed Interest and Finance Charges as per Section 24 of the CSERC (MYT) Regulations, 2021. The actual loan details as per the available annual accounts are as follows. The Loan details are provided in Technical Format F-10.

**Table 18 Loan Portfolio for FY 2022-23 (Rs. Cr.)**

S No.	Lender Name	Opening Balance	Addition	Repayment	Closing
1	PFC (Term Loan)	507.48	-	53.59	453.89
2	REC (Term Loan)	1,384.53	24.34	155.19	1,253.68
3	State Government Loan	21.17	42.93	-	64.10
	<b>Total</b>	<b>1,913.18</b>	<b>67.27</b>	<b>208.78</b>	<b>1,771.67</b>

6.43 In line with the regulations the allowable depreciation for the FY 2022-23 has been considered as normative repayment during the year.

6.44 CSPDCL would like to further submit that closing normative loan as on 31.03.2022 as determined by Hon'ble Commission in Order dated 13.4.2022 has been considered as opening normative loan as on 01.04.2022.

6.45 The weighted average rate of interest on actual loan has been taken for the purpose calculation of interest on loan which comes out to be 10.98%.

6.46 The computation of interest on loan considering the above factors is tabulated below:

**Table 19 Interest on Loan for FY 2022-23 (Rs. Cr.)**

S No.	Particular	MYT Order Dated 13.4.2022	Final True Up	Difference
1	Opening Net Normative Loan	1,847.74	2,112.01	264.27
2	Repayment during the year	272.11	340.54	68.43
3	Additional Capitalization of Borrowed Loan during the year	0.00	203.75	203.75
4	Addition/(Reduction) in Normative loan during the year	40.74	272.23	231.49
5	Closing Net Normative Loan	1,616.37	2,247.45	631.08
6	Average Normative loan during the year	1,732.06	2,179.73	447.67
7	Weighted Average Rate of Interest	9.96%	10.98%	1.02%
8	Interest Expense	172.51	239.38	66.86
9	Add: Other Finance Charges	0.00	4.32	4.32
10	<b>Total Interest on Loan</b>	<b>172.51</b>	<b>243.69</b>	<b>71.18</b>

6.47 CSPDCL thus humbly pleads the Hon'ble Commission to approve the interest and financing charges for FY 2022-23 as Rs. 243.69 Cr. The detailed break up of Interest on Loan is provided in **Technical Format F-9, F-10, F-13 and R-7** respectively.

**Interest on Working Capital**

6.48 As per the CSERC MYT Regulations 2021 clause 26(1) (e) the working capital for retail supply business shall comprise of following.

- a. O&M Expenses for 15 days
- b. Maintenance Spares@ 20% of R&M Expenses.
- c. Receivables equivalent to one month of revenue from sale of electricity.

6.49 Further the regulation states that the allowable interest rate for working capital shall be equal to the Marginal Cost of Fund based Lending Rate (MCLR - one year tenor) of State Bank of India plus 200 basis point as on 30<sup>th</sup> September of the financial year. During truing-up, the interest on working capital shall be computed at an average actual sanctioned rate of interest during the year.

6.50 Accordingly, CSPDCL has considered the average actual sanctioned rate of interest for computation of interest on working capital for FY 2022-23. The rate thus arrived is 7.50%. Computation of Working Capital is tabulated below:

**Table 20 Interest on Working Capital for FY 2022-23 (Rs. Cr.)**

S No.	Particular	Tariff Order Dated 13.4.2022	Final True Up	Difference
1	Operation and Maintenance Expenses for 15 days	94.20	62.11	(32.09)
2	Maintenance spares @ 20% of Maintenance and General Expenses	68.95	71.03	2.08
3	Receivable equal to 1 month of expected revenue from sale of power	1,426.10	1,474.86	48.76
4	Total Working Capital	<b>1,589.25</b>	<b>1,607.99</b>	18.74
5	Net Working Capital Requirement	1,589.25	1,607.99	18.74
6	Rate of Interest (%)	9.00%	7.50%	(0.01)
7	<b>Interest on Working Capital requirement</b>	<b>143.03</b>	<b>120.65</b>	<b>(22.38)</b>

6.51 CSPDCL humbly requests the Hon'ble Commission to approve the interest on working capital as Rs. 120.65 for FY 2022-23. The detailed breakup of Interest on Working Capital is provided in **Technical Format F-12 and F-13** respectively.



### Return on Equity

6.52 CSPDCL would like to submit that it has computed permissible equity as per approved methodology of the capital structuring and clause 17.1 of the MYT Regulations, 2021 as shown in table below:

**Table 21 Return on Equity for FY 2022-23 (Rs. Cr.)**

S No.	Particular	MYT Order Dtd 13.04.2022	Final True Up	Difference
1	Permissible Equity in Opening GFA	2,224.11	2,373.95	149.84
2	Permissible Equity in Closing GFA	2,241.57	2,577.94	336.37
3	Average Gross Permissible Equity during the year	2,232.84	2,475.95	243.11
4	Rate of Return (%)	16.00%	16.00%	-
5	Return on Equity	357.25	396.15	38.90

6.53 CSPDCL further submits that it has not considered consumer contribution and grant received in the assets capitalised during the FY 2022-23 for calculation of equity base.

6.54 CSPDCL would like to further submit that closing equity as on 31.03.2022 as determined by Hon'ble Commission in Order dated 13.4.2022 has been considered as opening equity as on 01.04.2022.

6.55 CSPDCL also submits that there has been variation in the capitalization projected at the time of MYT Order and as per the final audited accounts which is reflected in the return on equity in final true up Petition.

6.56 Accordingly, the return on equity for FY 2022-23 is arrived at Rs. 396.15 Cr. CSPDCL humbly pleads the Hon'ble Commission to approve the ROE as Rs. 396.15 Cr for FY 2022-23. Detailed breakup of Return on Equity is provided in F-18.

### Non-Tariff Income

6.57 CSPDCL submits that the non-tariff income has been taken at actuals as per the final accounts of FY 2022-23 and is tabulated below:

**Table 22 Non-Tariff Income (Rs. Cr.)**

S No.	Particulars	MYT Order dtd. 13.4.2022	Final True Up	Difference
1	Non-Tariff Income		64.89	
2	Wheeling Charges, Open access and Cross Subsidy Surcharge, POC		88.05	
3	POC		151.01	
4	Meter Rent		46.63	
	<b>Total</b>	<b>185.43</b>	<b>350.59</b>	<b>165.16</b>

6.58 CSPDCL humbly requests Hon'ble Commission to approve the Non-Tariff Income of Rs. 350.59 Cr for FY 2022-23. The detailed breakup of Non-Tariff Income has been provided in Technical Formats R8 and R9 respectively.

**Aggregate Revenue Requirement**

6.59 CSPDCL submits that based on the individual components calculated above the Aggregate revenue requirement for FY 2022-23 is tabulated below:

**Table 23 ARR Summary for FY 2022-23 (Rs. Cr.)**

S No.	Particulars	Tariff Order Dated 13.4.2022	Final True Up	Difference
A	Gross Power Purchase Expenses	15,622.84	17881.94	2,259.10
B	Operation & Maintenance Expenses	2,292.20	2,383.54	91.34
1	Net Employee Expenses	1,245.27	1,156.07	-89.20
2	Net Administrative and General Expenses	88.88	122.19	33.31
3	Net Repair and Maintenance charges	255.87	319.59	63.72
4	Pension & Gratuity	702.18	785.69	83.51
5	Interim Wage Relief	-	-	-
C	Interest & Finance Expenses	315.54	364.35	48.81
1	Interest on Loan	172.51	243.69	71.18
2	Interest on Working Capital Requirement	143.03	120.65	-22.38
D	Other Expenses	631.74	736.69	104.95
1	Depreciation	274.49	340.54	66.05
2	Return on Equity	357.25	396.15	38.90
E	Gain/(Loss) on Efficiency		281.35	281.35
1	Gain/(Loss) on Sharing O&M Efficiency		28.87	28.87
2	Licensee's Share in Gain/(Loss) on account of Distribution Losses		252.48	252.48
F	Less: Non-Tariff Income	185.43	350.59	165.16
1	Non-Tariff Income		262.54	262.54
2	Wheeling Charges, Open access and Cross Subsidy Surcharge, POC		88.05	88.05
G	Aggregate Revenue Requirement	18,676.89	20,734.58	2,057.69

6.60 CSPDCL humbly requests Hon'ble Commission to approve the ARR of Rs. 20,734.58 Cr. against Rs. 18,676.89 Cr. in Tariff Order dated 13.4.2022 as per the details shown in the table above.



### Revenue from Sale of Power

6.61 CSPDCL Submits that the actual revenue for FY 2022-23 as per the audit accounts is tabulated below:

**Table 24 Revenue from Sale of Power for FY 2022-23 (Rs. Cr.)**

S No.	Particular	Tariff Order Dated 13.4.2022	Final True Up
1	Revenue from Retail Sale of Electricity	16,726.60	17,698.26
2	Add: Subsidy from State Government		-
3	Revenue from Sales of Surplus Power		1,247.91
4	<b>Total Revenue from Sale</b>	<b>16,726.60</b>	<b>18,946.18</b>

6.62 Petitioner would like to submit that revenue from retail sale of electricity in the aforesaid table is inclusive of revenue subsidy received from State Government towards supply of electricity. CSPDCL would request Hon'ble Commission to approve Rs. 18,946.18 Cr. as revenue from sale of Power as per final accounts of FY 2022-23, which the summation of Rs. 17,698.26 Cr towards revenue from retail sale of electricity and revenue from sale of surplus power which includes IEX sales and other revenue receipt of Rs. 1,247.91 Crore.

### Revenue Gap/ (Surplus)

6.63 The standalone revenue gap/ (surplus) for the FY 2022-23 and cumulative revenue gap (surplus) has been tabulated below:

**Table 25 Revenue Gap / Surplus for FY 2022-23**

S No.	Particulars	2022-23 Tariff Order Dated 13.4.2022	Final True Up
1	Net ARR	15,280.55*	20,734.58
2	Revenue from Sale of Power	16726.60	18,946.18**
3	<b>Standalone Revenue Gap/(Surplus)</b>	<b>-1,446.05</b>	<b>1,788.41</b>
4	Add: Standalone Revenue Gap/(surplus)		1,788.41
5	Gap/(Surplus) carried forward from final true-up of FY 2020-21 for CSPGCL	246.21	246.21
6	Gap/(Surplus) carried forward from final true-up of FY 2020-21 for CSPTCL	-90.32	-90.32
7	Gap/(Surplus) carried forward from final true-up of FY 2020-21 for CSLDC	-3.32	-3.32
8	Gap/(Surplus) carried forward from final true-up of FY 2020-21 for CSPDCL, including impact of Review Petition	1,679.82	1,679.82

S No.	Particulars	2022-23 Tariff Order Dated 13.4.2022	Final True Up
9	Add: Revenue Gap of CSPTCL for FY 2022-23	-	37.02
10	Add: Revenue Gap of CSPGCL for FY 2022-23	-	159.76
11	Add: Revenue Gap for Review Petition after Final True Up for FY 2021-22	0.00	832.67
12	Add: Revenue Gap for review Petition after Final True-Up for FY 2021-22 (Redistribution of Distribution losses)	0.00	106.80
13	Less: VCA adjustment for July 2022 (As per Commission's Order including carrying cost)		45.72
14	<b>Closing Revenue Gap/(Surplus)</b>	<b>386.34</b>	<b>4711.32</b>
15	Gap Adjusted in FY 2021-22		
16	<b>Net Closing Gap</b>		<b>4711.32</b>
17	Rate of Interest (%)		7.50%
18	Carrying /(Holding) cost	0.00	137.59
19	<b>Total Closing Revenue Gap/(surplus) at end of the year</b>	<b>386.34</b>	<b>4,848.91</b>

\* The approved ARR includes adjustment of projected bulk sale of power also.

\*\* The revenue realized from sale of power includes the revenue from bulk & retail sale of power.

6.64 CSPDCL submits that all the adjustments have been considered while arriving at the gap of Rs. 4,848.91 Cr along with the carrying cost. CSPDCL also would like to submit that it has inadvertently levied the VCA charges for July 2022 which has now been reviewed and adjusted in the True-up of FY 2022-23 along with carrying cost. CSPDCL would further like to request Hon'ble Commission to approve the aforesaid standalone revenue gap and consider the same as opening gap for ensuing year along with carrying cost.

6.65 CSPDCL would like to further submit that the closing gap of Rs. 4,848.91 Cr of FY 2022-23 has been carried forward as opening gap for FY 2023-24 along with the carrying cost for FY 2022-23.

6.66 The aforesaid gap of Rs. 4,711.32 Crore translates to Rs. 4,848.91 Crore in Table No. 25 after applying the carrying cost for the relevant period.

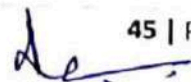


## 7. AGGREGATE REVENUE REQUIREMENT FOR FY 2024-25

- 7.1 The Hon'ble Commission finalised the CSERC (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, 2021 (hereinafter referred to as "CSERC MYT Regulations 2021") applicable for FY 2022-23 to FY 2024-25 under Section 62 of the Electricity Act, 2003.
- 7.2 As per Regulation 5.7 (b) (ii) of the CSERC MYT Regulations, 2021, CSPDCL is required to submit the following for the Control Period (FY 2022-23 to FY 2024-25):
- "The truing up petition for preceding year(s);
  - Revised power purchase quantum / cost (if any), with details thereof for the ensuing years.
  - Revenue from existing tariffs & charges and projected revenue for the ensuing year.
  - Application for redetermination of ARR for the ensuing year along with retail tariff proposal."
- 7.3 Accordingly, CSPDCL is submitting the Petition for Re-determination of ARR for the ensuing year (FY 2024-25) with projection of sales, power purchase and all other components of ARR as detailed in the subsequent paragraphs.

### **Energy Sales within the State**

- 7.4 CSPDCL submits 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 interrelationships have been estimated among them to arrive at a forecast of energy sales within a range for the purpose of estimating future costs/revenues. CSPDCL submits that the Commission in its CSERC (MYT) Regulations, 2021 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.
- 7.5 CSPDCL has considered the past growth trends in each consumer category for the projections of the Control period as per the categorization made by Hon'ble Commission in latest Tariff Order.
- 7.6 Compounded Annual Growth Rates (CAGRs) were computed from the past figures for each category, corresponding to different lengths of time in the past five years for LV and HV i.e. FY 2017-18 to FY 2022-23 respectively.
- 7.7 Subject to the specific characteristics of each consumer category, three years CAGR is chosen as the basis of sales projection for that category. For example, if an abnormal growth rate (high or low),





relative to the current trend, is observed at the beginning of the five-year period considered, then a shorter period is considered for the trend analysis and projections, i.e., appropriately a 4-year CAGR has been considered. In case where the past data does show a declining trend, a nil growth has been considered or a trend which is not consistent is substituted with assumptions of growth;

- 7.8 Further, for projection of number of consumers, sale and connected load of subcategories/slabs of any consumer category, CSPDCL has used the ratio of provisional sales in the subcategory to total sales of the category observed in FY 23. Further, the actual sales, connected load and number of consumers has been shown as old categories/ subcategories as approved in MYT Tariff Order dated 13.04.2022.

### **Category-wise Forecast – Sales**

- 7.9 Based on the methodology detailed above, the category wise average YoY growth considered and projections for sales for the FY 2024-25 is summarized in the table below:

**Table 26: Consumer Category Wise Projection of Sales (MU) for the FY 2024-25**

Sr. No	Consumer Category	Class	Growth Rate Considered	Sales	
				Remarks	Revised Estimates
<b>A</b>	<b>LV</b>		<b>7.39%</b>		<b>17878.69</b>
1	Domestic Including BPL Consumers	LV 1	5.80%	CAGR of 4 years considering 2018-19 to FY 2022-23.	7009.56
2	Non-Domestic Normal	LV 2.1	0.00%	0.00% growth considered	312.87
3	Non-Domestic Demand Based	LV 2.2	8.00%	8.00% Growth rate considered	934.09
4	Agriculture (Metered)	LV 3	5.37%	CAGR of 5 years considering 2019-20 to FY 2022-23.	6057.82
5	Agriculture Allied Activities	LV 4	14.50%	CAGR of 3 years considering 2019-20 to FY 2022-23.	44.93
6	Industry	LV 5	8.44%	CAGR of 4 years considering 2018-19 to FY 2022-23.	913.13
7	Public Utilities	LV 6	10.00%	10.00% Growth rate considered	833.47
8	IT Industries	LV 7	10.00%	10.00% Growth rate considered	1.13
9	Temporary	LV 8	10.00%	10.00% Growth rate considered	1,771.70
<b>B</b>	<b>HV</b>		<b>6.53%</b>		<b>15996.67</b>
10	Railway Traction (132/220 kV)	HV 1	8.32%	CAGR of 3 years considering 2019-20 to FY 2022-23.	1,472.76
11	Mines	HV 2	2.84%	CAGR of 4 years considering 2018-19 to FY 2022-23.	744.43
12	Other Industrial & General Purpose Non-Industrial	HV 3	2.47%	CAGR of 4 years considering 2018-19 to FY 2022-23.	2,373.90
13	Steel Industries	HV 4	12.50%	12.50% Growth rate considered	10,933.10



Sr. No	Consumer Category	Class	Growth Rate Considered	Sales	
				Remarks	Revised Estimates
14	Irrigation & Agriculture Allied Activities, Public Water Works	HV 5	12.57%	CAGR of 4 years considering 2018-19 to FY 2022-23.	276.01
15	Residential	HV 6	1.23%	YoY Growth for FY 2020-21 has been considered	179.64
16	Start Up Power (400/220/123/33/11 kV)	HV 7	0.50%	Average YoY Growth for past three years from FY 2019-20 to FY 2022-23 has been considered	8.99
17	Industries related to manufacturing of equipment for power generation from renewable energy sources	HV 8	10.00%	10.00% Growth rate considered	5.51
18	IT Industry and Export oriented textile industry	HV 9	10.00%	10.00% Growth rate considered	2.34
19	Temporary	HV 10			
<b>C</b>	<b>Total (A+B)</b>				<b>33,875.36</b>

### Category-wise Forecast - Number of Consumers

7.10 Based on the methodology detailed above, the category wise average YoY growth considered and projections for number of consumers for the FY 2024-25 is summarized in the table below:

**Table 27: Consumer Category Wise Projection of Number of Consumers for the FY 2024-25**

Sr. No	Consumer Category	Class	Growth Rate Considered	No. of Consumers	
				Remarks	Revised Estimates
<b>A</b>	<b>LV</b>				<b>64,73,063</b>
1	Domestic Including BPL Consumers	LV 1	1.36%	CAGR of 4 years considering 2018-19 to FY 2022-23.	50,89,411
2	Non-Domestic Normal	LV 2.1	2.00%	2.00% growth considered	3,30,642
3	Non-Domestic Demand Based	LV 2.2	10.00%	10.00% Growth rate considered	1,08,668
4	Agriculture (Metered)	LV 3	5.11%	CAGR of 4 years considering 2018-19 to FY 2022-23.	5,70,129
5	Agriculture Allied Activities	LV 4	13.42%	CAGR of 3 years considering 2019-20 to FY 2022-23.	5,261
6	Industry	LV 5	2.89%	CAGR of 3 years considering 2019-20 to FY 2022-23.	39,636
7	Public Utilities	LV 6	10.00%	10.00% Growth rate considered	58,155

Sr. No	Consumer Category	Class	Growth Rate Considered	No. of Consumers		Revised Estimates
				Remarks		
8	IT Industries	LV 7	10.00%	10.00% considered	Growth rate	11
9	Temporary	LV 8	10.00%	10.00% considered.	Growth rate	2,71,150
<b>B</b>	<b>HV</b>					<b>3,986</b>
10	Railway Traction (132/220 kV)	HV 1	3.11%	CAGR of 4 years considering 2018-19 to FY 2022-23.		28
11	Mines	HV 2	7.57%	CAGR of 4 years considering 2018-19 to FY 2022-23.		186
12	Other Industrial & General Purpose Non-Industrial	HV 3	4.45%	CAGR of 4 years considering 2018-19 to FY 2022-23.		2,757
13	Steel Industries	HV 4	6.97%	CAGR of 4 years considering 2018-19 to FY 2022-23.		640
14	Irrigation & Agriculture Allied Activities, Public Water Works	HV 5	8.48%	CAGR of 3 years considering 2019-20 to FY 2022-23		255
15	Residential	HV 6	4.97%	CAGR of 4 years considering 2018-19 to FY 2022-23.		75
16	Start Up Power (400/220/123/33/11 kV)	HV 7	2.00%	2.00% Growth rate considered		33
17	Industries related to manufacturing of equipment for power generation from renewable energy sources	HV 8	10.00%	10.00% considered	Growth rate	8
18	IT Industry and Export oriented textile industry	HV 9	10.00%	10.00% considered	Growth rate	4
19	Temporary	HV 10	-	CAGR of 3 years considering 2019-20 to FY 2021-22.		
<b>C</b>	<b>Total (A+B)</b>					<b>64,77,049</b>

### Category-wise Forecast – Connected Load

7.11 Based on the methodology detailed above, the category wise average YoY growth considered and projections for connected load for the FY 2024-25 is summarized in the table below:



Table 28: Consumer Category Wise Projection of Connected Load (MW) for the FY 2024-25

Sr. No	Consumer Category	Class	Growth Rate Considered	Connected Load (MW)	
				Remarks	Revised Estimates
<b>A</b>	<b>LV</b>				<b>8,619.44</b>
1	Domestic Including BPL Consumers	LV 1	5.72%	CAGR of 4 years considering 2018-19 to FY 2022-23.	4,002.94
2	Non-Domestic Normal	LV 2.1	3.00%	3.00% Growth rate considered	359.26
3	Non-Domestic Demand Based	LV 2.2	10.00%	10.00% Growth rate considered	985.57
4	Agriculture (Metered)	LV 3	4.72%	CAGR of 4 years considering 2018-19 to FY 2022-23.	1,448.52
5	Agriculture Allied Activities	LV 4	10.00%	10.00% Growth rate considered	39.08
6	Industry	LV 5	7.42%	CAGR of 3 years considering 2019-20 to FY 2022-23.	943.76
7	Public Utilities	LV 6	10.00%	10.00% Growth rate considered	213.58
8	IT Industries	LV 7	10.00%	10.00% Growth rate considered	0.87
9	Temporary	LV 8	12.23%	CAGR of 4 years considering 2018-19 to FY 2022-23.	625.85
<b>B</b>	<b>HV</b>				<b>4,305.87</b>
10	Railway Traction (132/220 kV)	HV 1	3.82%	CAGR of 5 years considering 2017-18 to FY 2022-23.	451.27
11	Mines	HV 2	4.18%	CAGR of 4 years considering 2018-19 to FY 2022-23	255.64
12	Other Industrial & General Purpose Non-Industrial	HV 3	4.65%	CAGR of 4 years considering 2018-19 to FY 2022-23	1,134.53
13	Steel Industries	HV 4	8.34%	CAGR of 5 years considering 2018-19 to FY 2022-23	2,287.66
14	Irrigation & Agriculture Allied Activities, Public Water Works	HV 5	10.00%	10.00% Growth rate considered	96.47
15	Residential	HV 6	4.50%	CAGR of 4 years considering 2018-19 to FY 2022-23	64.56
16	Start Up Power (400/220/123/33/11 kV)	HV 7	0.00%	0.00% Growth rate considered	11.40
17	Industries related to manufacturing of equipment for power generation from renewable energy sources	HV 8	10.00%	10.00% Growth rate considered	2.95
18	IT Industry and Export oriented textile industry	HV 9	10.00%	10.00% Growth rate considered	1.39
19	Temporary	HV 10		CAGR of 3 years considering 2019-20 to FY 2021-22.	
<b>C</b>	<b>Total (A+B)</b>				<b>12,925.32</b>

7.12 CSPDCL requests the Hon'ble Commission to approve the Number of Consumers, Connected Load and Sales as shown above. The detail breakup of Number of Consumers, Connected Load and Sales is provided in the Technical Formats Sheet no R12\_R13 respectively.

**Transmission Loss**

**Inter State Transmission Loss**

7.13 It is submitted that for Inter State Transmission Losses, CSPDCL has considered weighted average transmission loss of actual 12 months (April 2022 till March 2023) of Western Region. The same practice is very much adopted by all State Commissions and is more practical as it captures varying loss. The transmission Losses are tabulated as under:

**Table 29: Inter-State Transmission Loss (%)**

Sr. No	Particulars	FY 2024-25
1.	Inter-Transmission Losses (%)	3.57%

7.14 CSPDCL further submits that intra state transmission losses of 3% as determined by Hon'ble Commission in its latest tariff order (Order dated 13.04.2022) is considered to project availability for the year FY 2024-25.

**Energy Requirement and Distribution Loss**

7.15 In accordance with CSERC Tariff Regulation 2021, Clause 98 the distribution losses shall be calculated as follows:

***98 ENERGY LOSSES FOR DISTRIBUTION SYSTEM***

*98.1. The energy loss for 33 KV and below voltage level, shall be computed as per relevant provision(s) of the State Grid Code 2011 as amended from time to time. The difference between the energy injected at 33 KV voltage level and the sum of energy sold to all its consumers (retail and open access), at voltage level 33 KV and below shall be the energy loss for the 33KV and below system. The same shall be considered for the gain/ loss at the time of true up.*

*98.2. Energy sold shall be the sum of metered sales and assessed unmetered sales, if any, based on prudence check by the Commission.*

*98.3. Energy Loss trajectory for distribution licensee shall be as specified by the Commission in the tariff order.*



7.16 The Regulation provides that the Distribution Losses shall be specified by the Hon'ble Commission in the MYT Tariff Order. The Commission vide its MYT Order dated 13.4.2022 has specified the Distribution loss for FY 2024-25 as 15.00% and the same has been considered for projecting the Distribution loss.

7.17 Accordingly, CSPDCL has projected the Distribution Losses. The detail calculation of Energy Balance and Distribution Loss Computation is provided in the Technical Format Sheet No R3. The table below summarizes the computation of energy balance for CSPDCL during FY 2024-25:

**Table 30: Energy Balance for FY 2024-25**

Sr. No.	Energy Requirement	Legend	Projections FY 2024-25
1	LV Sales	A	17,878.69
2	HV Sales	B	10,022.70
3	Total Below EHV Level	C=A+B	27,901.38
4	Energy Loss below 33 kV (in %)	D	15.00%
5	Energy Loss below 33 kV (in MU)	E	4,185.21
6	Gross Energy requirement at 33 kV Level	F=C+E	32,086.59
7	Less: Direct Input to distribution at 33 kV Level	G	351.77
8	Net Energy Input required at Distribution Periphery at 33 kV Level	H=F-G	31,734.82
9	Sales to EHV consumers	I	5,973.98
10	Net energy requirement at Distribution periphery	J=H+I	37,708.79
11	Distribution loss including EHV Sales	K	11.00%

7.18 CSPDCL would like to submit in pursuance to Hon'ble Commission latest Order it has adopted 15.00% target for FY 2024-25.

**Power Purchase Quantum & Cost**

7.19 CSPDCL submit that it has broadly categorised the sources of energy into Allocation (firm and non-firm) from Central Generating Stations (CGS), State Owned Generation i.e., Generation from CSPGCL, Solar Power Plants, Independent Power Producers (IPPs), and Short-Term/Bilateral purchases, etc. CSPDCL further submits that the plants which are scheduled to commence

generation during FY 2024-25 are renewable energy plants only and it has considered the availability from such new plants.

7.20 As regards the power purchase CSPDCL has relied upon Clause 92.4.1 of the MYT Regulations, 2021 reproduced as under:

*"92.4.1 - The distribution licensee shall be permitted to recover power purchase cost as approved by the Commission*

7.21 Accordingly, CSPDCL in subsequent paragraphs has analysed and projected the purchase of power from various sources.

### **Old Central Generating Stations**

7.22 CSPDCL submit that it has firm allocation of power from Central Generating Stations like Korba Super Thermal Power Station (STPS), Vindhya 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.

7.23 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 rate approved by the Hon'ble Commission vide MYT order dated 13.4.2022 for estimating the Power Purchase expense for FY 2024-25. 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.

7.24 Gross Energy Availability: CSPDCL estimated the gross energy availability from the existing stations based on the allocated capacity and the actual average Plant Load Factor (PLF) for the past five years sourced from CEA and same has been considered for FY 2024-25 for calculating the gross energy availability for State.

### **State Generating Stations**

7.25 CSPDCL submit that it mainly relies on the power from State Generating Station. Currently, it is tied up with 2985 MW from the State generating company i.e., CSPGCL.

7.26 Availability of State Generating Stations other than Marwa is considered on actual basis. Further availability from Marwa is considered at 70% PLF based on conservative approach after Commissioning of Captive Coal mine.



7.27 CSPDCL while estimating the costs, have considered the fixed charges as well as energy charges as approved by the Hon'ble Commission in its Tariff Order dated 13.04.2022. CSPDCL has estimated that any cost over & above would be passed though on actual basis.

7.28 CSPDCL has not considered any sale of the power of Marwa to Telangana at state periphery for FY 2024-25 as no power is supplied to Telangana state unless the state shall pay the long pending dues to CSPDCL.

**Power Purchase from Renewable Sources**

7.29 The Hon'ble Commission in its Chhattisgarh State Electricity Regulatory Commission (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2021 notified dated 29.10.2021 giving effect from 01.04.2021 stipulates target trajectory for RPO compliance till FY 2024-25. Accordingly, CSPDCL has considered the RPO obligation for FY 2024-25 also.

**Table 31: Minimum quantum of electricity to be procured by Obligated Entity as percentage of total consumption**

Category	FY 2024-25
Solar	12.50%
Non-Solar (HPO)	0.66%
Non-Solar (Others)	10.50%

7.30 For the purpose of projections, CSPDCL has considered R.E. purchase from new renewable energy plants. CSPDCL further submits that it has envisaged that additional RE capacity of 2373 MW would be commissioned in the Control Period (FY 2022-23 to FY 2024-25). The details of RE capacity addition with expected commissioning date is given in the table below.

**Table 32 Renewable Energy Capacity Addition Envisaged for FY 2024-25**

S. No.	Plant	Capacity (MW)	Commissioning Date
1	SECI (Wind)	300	01-12-2023
2	SECI(Hybrid)	400	Already Commissioned supply started from December 2022
3	SECI (Solar+BESS)	100	Partly Commissioned by Nov 2023
4	NHPC (Solar)	400	01-04-2025
5	SECI (Hybrid)	400	01-03-2025
6	SECI (Blended wind)	170	01-07-2024
7	MBPCL	113	01-04-2024
8	SECI (Solar +Manufacturing)	300	01-09-2024
9	NTPC Solar	190	Already Commissioned supply started from November 2023
10	<b>Total</b>	<b>2373</b>	

7.31 CSPDCL would like to submit that after availability of cheaper non solar renewable source in terms of capacity addition due to expected Commissioning of dedicated wind as well as blended wind source during next control period, it has not considered availability from biomass generating stations for estimations of power purchase expenses. The aforesaid estimation is in pursuance to CSERC view over management of surplus sale of power and economic despatch principles in its Tariff Order dated 13.04.2022. In the same line Petitioner would like to submit that Hon'ble Commission may kindly consider biomass generating stations under purview of Merit Order Despatch in the best interest of Power Purchase Cost as these stations contain two-part Tariff and are not intermittent in nature like Wind Generating Stations. CSPDCL understands that there shall be a liability related towards fixed cost arising out of non-scheduling of electricity and in backdrop of this understandings Petitioner would like to submit that it may be allowed to claim actual expenditure towards payment of its fixed cost towards biomass generators at the time of True Ups.

**Concessional Power Purchase**

7.32 For the purpose of projections for the FY 2024-25, CSPDCL has considered the quantum and rate of concessional power as approved by the Commission in Order dated 13.4.2022. The projections of power purchase expenses from these sources computed on the basis of weighted average rates is shown in table below:

**Table 33: Concessional Power Purchase for the FY 2024-25**

Sr. No	Source	Units Purchased (MU)	Fixed Cost (Rs crore)	Variable Cost (Rs crore)	Total Cost (Rs crore)
A	Concessional Power	2,395.56	-	444.52	444.52
<b>Total Concessional Power</b>		<b>2,395.56</b>	<b>-</b>	<b>444.52</b>	<b>444.52</b>

**Transmission – Inter, Intra & CSLDC Charges**

7.33 It is submitted that CSPDCL has to pay transmission charges to PGCIL for use of transmission facilities enabling power drawl from western & eastern region. The calculation of PGCIL charges has been considered as same levels as approved by Hon'ble Commission in Tariff Order dated 13.04.2022 for FY 2024-25.

7.34 Further Intra-State transmission charges and SLDC charges have also been considered at same level as approved by the Hon'ble Commission in the Tariff Order dated 13.04.2022 for FY 2024-25.

7.35 CSPDCL requests the Hon'ble Commission to kindly approve the transmission and other charges for FY 2023-24 as shown in the table below:



**Table 34: Transmission and other charges for the FY 2024-25**

Sr. No	Source	Total Cost (Rs crore)
a	Interstate Transmission Charges	724.69
b	Intrastate Transmission Charges	1,226.30
c	CSLDC Charges	22.21
<b>Total Transmission Charges</b>		<b>1,973.20</b>

**Interstate Sale**

7.36 CSPDCL would most humbly like to submit that the sale of electricity other than to retail consumers is not within the regulatory purview of the Hon'ble 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.

**Summary of Power Purchase Cost**

7.37 Thus, CSPDCL request the Hon'ble Commission to approve Power Purchase Cost as shown below. **The detail calculation of Power Purchase Quantum along with its cost is provided in the Technical Format Sheet No R4, R5 respectively.** The summary of the power purchase cost is shown in the Table below:

**Table 35: Power Purchase Cost for FY 2024-25**

Sr. No	Particulars	FY 2024-25		
		Units Purchased (MU)	Total Cost (Rs crore)	Paisa/kWh
<b>1</b>	<b>Central Generating Stations</b>	<b>14784.01</b>	<b>4926.77</b>	<b>333</b>
A	NTPC	13579.58	4297.80	316
B	NTPC - SAIL (NSPCL)	267.39	93.05	348
C	NPCIL	288.76	93.14	323
D	Others	648.28	442.78	683
<b>2</b>	<b>State Generating Stations</b>	<b>18697.84</b>	<b>6461.20</b>	<b>346</b>
A	CSPGCL - Thermal	18023.59	6335.11	351
B	CSPGCL - Renewables	674.25	126.08	187

Sr. No	Particulars	FY 2024-25		
		Units Purchased (MU)	Total Cost (Rs crore)	Paisa/kWh
3	Concessional Power - Through CSPTrdCL	2395.56	444.52	186
4	Others - Renewables	3945.89	1028.76	261
A	Biomass	0.00	0.00	0.00
B	Solar	1293.21	323.30	250
C	Hydel/Other RE	464.72	158.47	341
D	Other RE	2187.96	546.99	250
6	Transmission Charges		1,973.20	
A	Interstate Transmission Charges		724.69	
B	Intrastate Transmission Charges		1,226.30	
C	CSLDC Charges		22.21	
7	Gross Power Purchase Cost	39,823.30	14,834.45	373
8	Adjustments	983.24	206.90	210
I	Inter State Transmission Loss	527.52	0.00	0.00
ii	Sale to Telangana	0.00	0.00	0.00
iii	Sale of Surplus Power	455.72	206.90	454
9	Net Power Purchase	38,840.06	14,627.55	377

#### Other heads of ARR

7.38 Regulation 5.7(b)(ii) of the MYT Regulations, 2021 specifies as under:

*"(b) After first year of control period and onwards, the yearly true up petition shall comprise of:*

*...*

*ii. For Distribution Wire and Retail Supply Business*

- 1. The truing up petition for preceding year(s).*
- 2. Revised power purchase quantum/cost (if any), with details thereof for the ensuing year.*
- 3. Revenue from existing tariffs and charges and projected revenue for the ensuing year.*
- 4. Application for re-determination of ARR for the ensuing year along-with retail tariff proposal."*



7.39 Thus, in accordance with the MYT Regulations, 2021, only the power purchase cost component of the ARR can be revised through the present regulatory process, and all other components of the ARR have to be considered as approved by the Commission in the MYT Order dated 13 April 2022. This is also as per the past practice adopted by the Commission. Hence, in order to determine the revised ARR for FY 2024-25, the Petitioner has considered the projected sales and power purchase cost for FY 2024-25 as detailed earlier in this Chapter. Further all other components of ARR was considered as approved in the MYT Order dated 13<sup>th</sup> April 2022.

**Aggregate Revenue requirement for FY 2024-25**

7.40 The summary of the ARR claimed by CSPDCL for FY 2024-25 is shown in the Table below:

**Table 36: Aggregate Revenue requirement for FY 2024-25**

Sr. No	Particulars	FY 2024-25
<b>A</b>	<b>Power Purchase Expenses</b>	<b>14,627.55</b>
1	Power Purchase Cost (without Transmission Charges)	12,861.25
2	Less: Sale of Power to Telangana	-
3	Less: Sale of Surplus Power	206.90
2	Interstate Transmission charges (PGCIL)	724.69
3	Intrastate Transmission Charges	1,226.30
5	CSLDC Charges	22.21
<b>B</b>	<b>Operation &amp; Maintenance Expenses</b>	<b>2,564.55</b>
1	Net Employee Expenses	1,373.97
2	Net Administrative and General Expenses	96.09
3	Net Repair and Maintenance charges	268.17
4	Terminal Benefits (Pension & Gratuity)	826.32
<b>C</b>	<b>Interest &amp; Finance Expenses</b>	<b>277.63</b>
1	Interest on Loan	134.67
2	Interest on Security Deposit	-
3	Interest on Working Capital Requirement	142.96
<b>D</b>	<b>Other Expenses</b>	<b>706.16</b>
1	Depreciation	334.26
2	Return on Equity	371.90
<b>E</b>	<b>Less: Non-Tariff Income</b>	<b>185.43</b>
1	Non-Tariff Income	185.43
<b>F</b>	<b>Annual Revenue Requirement</b>	<b>17,990.46</b>

### Revenue from Sale of Power at Existing Tariff

7.41 The Revenue from Sale of Power for FY 2024-25 has been calculated based on the tariff determined by the Hon'ble Commission in the Tariff Order for FY 2023-24 dated 28<sup>th</sup> March 2023. The detail breakup of Revenue from Sale of Power at Existing Tariff is provided in the Technical Formats Sheet no R12 respectively and are as follows:

7.42 The Category wise Revenue from sale of Power for FY 2024-25 is provided as under:

**Table 37: Details of Category Wise Revenue for FY 2024-25**

S No.	Category Nomenclature	Consumer category	Revenue (Rs. Crore)
<b>LV Categories (A) (MU)</b>			<b>10,649.05</b>
1	LV 1	Domestic Including BPL Consumers	3,589.58
2	LV 2	Non-Domestic (Normal Tariff)	239.13
3	LV 2.1	Non-Domestic (Demand Based)	983.65
4	LV 3	Agriculture Metered	3,292.30
5	LV 4	Agriculture allied	31.66
6	LV 5	LT Industry	639.13
7	LV 6	Public Utilities	569.72
8	LV 7	IT Industry	0.74
9	LV 8	Temporary	1,303.15
<b>HV Categories (B) (MU)</b>			<b>10,967.72</b>
10	HV 1	Railway Traction	787.62
11	HV 2	Mines (Coal & Others)	702.61
12	HV 3	Other Industry & General Purpose Non-Industrial	2,219.08
13	HV 4	Steel Industries	6,889.32
14	HV 5	PWW, Irrigation & Agriculture allied activities	211.96
15	HV 6	Residential Purpose	142.54
16	HV 7	Start-up Power Tariff	10.39
17	HV 8	Industries related to manufacturing of equipment for power generation from RE Sources	2.88
18	HV 9	IT Industries	1.29
19	HV 10	Temporary	
<b>Total (A+B)</b>			<b>21,616.77</b>

**Table 38: Revenue from Sale of Power at Existing Tariff (Rs. crore)**

S No.	Particular	Revenue (Rs. Crore)
1	Revenue from Retail Sale of Power	21,616.77



### Revenue Surplus / (Deficit)

7.43 The standalone revenue Surplus / (Deficit) for FY 2024-25 are as follows:

**Table 39: Standalone Revenue Surplus / (Deficit) (Rs. crore)**

<b>Sr. No</b>	<b>Particulars</b>	<b>Legend</b>	<b>Amount (Rs. Crore)</b>
1.	Aggregate Revenue Requirement	A	17,990.46
2.	Income from Sale of Power at Existing Tariff	B	21,616.77
3.	Standalone (Deficit) / Surplus	C=B-A	3,626.31
4.	<i>(Deficit) / Surplus carried forward (review Petition)</i>	D	(4,848.91)
5	<i>(Deficit) / Surplus carried forward from FY 2023-24</i>	E	(2,924.53)
6	<i>Total (Deficit) / Surplus carried forward</i>	F=D+E	(8,046.66)
5.	Net (Deficit) / Surplus for the year	G=D-C	(4,420.35)

7.44 CSPDCL would like to submit that there is net standalone surplus of Rs. 3626.31 Crore in the FY 2024-25. However, considering the net revenue gap of Rs 8,046.66 crore carried forward from True up part of this Petition and for FY 2023-24 approved by the Commission vide order dated 28.3.2023 along with carrying cost, there is overall revenue gap of Rs 4,420.35 Crore in the FY 2024-25. CSPDCL, requests the Hon'ble Commission to approve the same.

7.45 CSPDCL humbly requests the Hon'ble Commission to approve the net gap after considering surplus/deficit position of CSPGCL/CSPTCL/CSLDC.



## 8. RETAIL TARIFF PROPOSAL

### To meet the Revenue Gap

- 8.1 CSPDCL would like to submit that determination of tariff for retail sale is prerogative of Hon'ble Commission U/s 62(3) of Electricity Act 2003, hence would like to submit that the Hon'ble Commission may be pleased to adopt a rationalized tariff across all consumer categories in order to meet the revenue gap except for Domestic category of consumer.

**Table 40: Standalone Revenue Surplus / (Deficit) and ACOS (Rs. crore)**

Sr. No	Particulars	Legend	Amount (Rs. Crore)
1.	Aggregate Revenue Requirement	A	17,990.46
2.	Income from Sale of Power at Existing Tariff	B	21,616.77
3.	Standalone (Deficit) / Surplus	C=B-A	3,626.31
4.	<i>(Deficit) / Surplus carried forward (including carrying cost)</i>	D	(8,046.66)
5.	Net (Deficit) / Surplus for the year*	E=D-C	(4,420.35)
6.	Sales (Mus)	F	33,875.36
7.	ARR (Rs. Crore)	G	22,410.81
8.	Revenue (Rs. Crore)	H	21,616.77

\*Including carrying cost

### Other Proposals

#### Formulation of Green Tariff:

- 8.2 There is a growing demand from consumers for a rapid transition to a zero-carbon economy. Over 175 of the world's most influential companies have already made this commitment through the global corporate leadership Initiative, RE100. This is driving up demand for renewable electricity and creating a shift in demand patterns away from fossil fuels across the global power system.
- 8.3 Government of India is also promoting renewable energy in a big way and has kept an aggressive target of 500 GW of renewable energy by 2030. Indian corporates are also playing key role in achieving the aggressive target of the Government, as corporate citizens and other resultant advantage of being zero carbon companies.



- 8.4 The corporate consumers have already initiated the process by opting to receive RE under Open Access mechanism as approved by the Commission. However, many corporates do not wish to go through this process of sourcing Renewable Energy because either they are not eligible to avail open access under the current Regulatory framework or they do not have the resources, expertise and the bandwidth required for carrying out this activity.
- 8.5 Considering the above practices available, states like Maharashtra, Karnataka, Madhya Pradesh have submitted a proposal for the approval of the Hon'ble Commission, to enable supply of 100% Green Power, to consumers opting for meeting its 100% power requirement, through Green Power, for introduction in their states.
- 8.6 The Petitioner submits that the Central Government in August 2021 has notified draft Electricity Rules (Promoting renewable energy through Green Open Access) 2021 where a separate Green energy tariff is to be determined by the Appropriate Commission.
- 8.7 Green Power Tariff, being totally voluntary in nature, will give choice to the consumers to opt for green energy.

#### **Relevant provisions of EA 2003**

- 8.8 Section 61(h) of the EA, 2003 has specified the promotion of generation of RE Further, Section 86(e) of the EA, 2003 specifies the function of State Commission, which includes promotion of generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person.

#### **Way forward**

- 8.9 Accordingly, the Petitioners (the Licensee) requests the Commission under Section 86 (1) (k) of the Electricity Act, 2003 (EA, 2003) read with Regulation 44 and 50 of Chhattisgarh Electricity Regulatory Commission (Conduct of Business) Regulations, 2009, for the approval for "Green Power Tariff" for supply of Renewable Energy (RE) to consumers for meeting their requirement of utilizing 100% green energy for their entire demand.
- 8.10 **Components of Green tariff:** For supplying exclusive round the clock green energy for the consumers, the licensee incurs additional cost - for additional RE procurement as well as to handle the intermittent nature of Renewable energy. There would be large variation during a day between RE generation and consumption on real time basis. Therefore, even if the quantum of RE generation and consumption is matching on monthly basis, there would be additional cost implication on CSPDCL. Such additional cost components are primarily identified and categorized as under:
- (a) Marginal Purchase Cost
  - (b) Banking/Storage Cost
  - (c) Backing Down Cost of Conventional Generator to absorb RE



(d) DSM Charges

- 8.11 Marginal Purchase Cost:** Marginal cost indicates the incremental cost estimated to be incurred for arranging Green Energy. The marginal cost associated with arranging additional RE power towards meeting green energy requirement of the consumer needs to be factored in while determining the Green Energy Tariff. As per the present findings, renewable energy purchase for FY 2024-25 is 4620.14 MU's) and the purchase cost projected is Rs. 1556.52 Cr. Thus, the average cost of electricity purchase from renewable energy source is Rs. 3.37 per unit.
- 8.12** This renewable energy purchase is mainly for meeting the RPO target of CSPDCL and hence the projected renewable energy purchase quantum for the year 2024-25 is not sufficient to meet the green energy requirement of the consumers, who intend to be avail green tariff. This necessitates additional procurement of renewable energy. However, with this additional RE procurement, there may be a situation of surplus energy in the system forcing CSPDCL to surrender the already tied up conventional sources. In this process, there is a saving in variable cost of these stations which is also factored in for arriving at the marginal cost of purchase of renewable energy. The cost of additional green energy purchase is calculated by taking difference between tariff for green energy purchase and the weighted average variable cost of electricity from non-renewable energy source to pass through the savings in variable cost of non-renewable sources surrendered.
- 8.13** The projected Variable cost for CGS and SGS stations for the year 2024-25 is as tabulated below.

Marginal Purchase Cost		
Station / Source	Energy Availability	Variable Charge Rs./ Unit
KORBA STPS	1541.56	1.45
KORBA STPS Unit VII	559.68	1.42
VINDHYACHAL	1496.27	1.51
SIPAT STPS	3259.59	1.38
MAUDA STPS	565.58	3.61
NTPC - SAIL (NSPCL)	267.39	2.58
LARA STPS	4538.93	1.35
SOLAPUR STPS	379.49	3.82
GADERWARA	503.66	3.71
KHARGAON STPS	553.47	4.02
KAHALGAON STPS	181.34	3.04
BARH STPS	0.00	0.00
NPCIL	288.76	3.41
OTHERS	105.25	1.85
NTP New	523.66	2.00
State Generating Stations	18023.59	1.63





Concessional Power	2395.56	1.86
<b>Total</b>	<b>35183.78</b>	
<b>Non-RE Per Unit Rate (variable Charge)</b>		<b>1.73</b>

8.14 The average cost of power purchase from non-renewable sources (variable Charge) for the FY 2024-25 is Rs. 1.73 per unit. Thus, the marginal purchase cost of Renewable energy for meeting green energy requirement of a consumer is Rs. 1.64/kWh. (3.37-1.73).

8.15 **Banking / Storage Cost:** Supplying RE power on round the clock basis always necessitates storage and banking of renewable power as RE power is season specific and, in a day, available for a limited duration only. If CSPDCL is procuring additional power from solar plant, the power will be available to CSPDCL only during the day when sunlight is available and considering the requirement of RE power for consumer as 100% of its entire consumption, CSPDCL would have to arrange RE power for entire day. In such cases the CSPDCL would have to arrange storage facility for such power. The banking quantity and charges depends on the consumption pattern. The HT/EHT consumption data, including open access for the period 2024-25 is considered for analysing the consumption pattern is mentioned below:

Banking / Storage Cost	Normal	Peak	Off peak
	53.67%	20.80%	25.53%

8.16 As per the consumption pattern, Normal, Peak and Off peak consumptions are 53.67 %, 20.80 % and 25.53% of total consumption respectively. Hence, If CSPDCL is procuring additional power from solar plants for meeting the energy requirement of a consumer who opts green tariff, the consumer will consume only 53.67 % of total generation during the solar generation period. The solar energy generated and available during the daytime needs to be stored to meet the consumers balance energy requirement at other times. Although there are technologies where the electricity can be stored in a small quantum however the technology for storing electricity on large-scale on commercial basis is still under development. Hence, the cost of energy to be stored is calculated by taking the difference between the GDAM purchase rate during evening/night hours (as applicable) and the sale price during day time, on the assumption that the surplus electricity, unused by the consumer, during normal period, can be sold in the GDAM and an equivalent electricity can be bought from GDAM during Peak and off peak period at the respective prices to meet the consumer's demand for green energy. For this, the market clearing price of GDAM for the year 2022-23 is taken and tabulated below:

### Clearing Price of GDAM

Summary	Rate (Rs/ kWh)
RTC	5.69
Evening	7.37
Day	4.34
Night	5.65
Morning	5.60

8.17 Thus, the banking cost is calculated by estimating the additional renewable energy requirement of 100 MW with CUF at 21%. The Per Unit Banking Charge is determined is Rs. 2.086 Rs/kwh as mentioned below:

RE Estimated Quantity	MW	100
CUF	%	21%
Yearly Generation	MU	183.96
Peak Consumption	MU	38.27
Normal Consumption	MU	98.73
Off Peak Consumption	MU	46.97
Banking Charges for Peak Consumption	Rs/kWh	3.03
Banking Charges for off-peak consumption	Rs/kWh	1.31
<b>Per unit banking Charges</b>	<b>Rs/kWh</b>	<b>2.086</b>

8.18 **Backing Down Cost of Conventional Generator to absorb RE:** DISCOMs are expected to face various integration issues when they procure renewable energy. Renewables being given the must-run status, is scheduled despite leading to backing down of conventional generators and payment of higher fixed charges. Sometimes, DISCOMs are forced to sell power at cheaper rate to ensure must-run status. Further, at the time when RE generation is higher than consumption, generation from the conventional sources needs to be backed down. The excess generation from tied up RE sources for supply under green tariff rate, will result in CSPDCL having to pay backing down cost to already tied up conventional generators due to degradation of Heat Rate, auxiliary energy consumption, higher consumption of Secondary Fuel Oil etc. for running the plant at below the specified Plant Load Factor. The compensation charges by backing down the conventional generating plant due to additional purchase of renewable energy is determined based by CSPDCL for FY 2024-25 due to degradation of Heat Rate, auxiliary Energy Consumption secondary fuel oil is indicated below:



Backing Down Instruction	MW	100
Backing Down MU's	MU's	183.96
MOD Highest Plant	MU's	553.47
Difference	MU's	369.51
Contribution by RE	MU's	183.96
Cost of RE Purchase	Rs. Crore	619.76
Conventional Purchase	Rs. Crore	439.18
Difference		180.58
<b>Backing Down Cost per unit</b>		<b>0.98</b>

8.19 The Backing down charges computed is Rs. 0.98 per unit.

8.20 **DSM Charges:** The Variable Renewable Energy generators are weather dependent and hence with the increasing of variable renewable energy sources in the grid, balancing power is used to stabilize the active power balance of integrated power systems on short time scales from seconds to hours. In AC power systems, the demand-supply balance has to hold at every instant of time to ensure frequency stability at, usually around 50 Hz. As per the Report of the Forum of Regulators on "analysis of factors impacting retail tariff and measures to address them" the cost of balancing renewables has been estimated to be in the range of Rs.1.10/unit by CEA. In addition, as per the report, the additional stranded capacity cost (incremental fixed charge) estimated on account of RE integration is in the range of Rs. 1.02/ unit.

8.21 Due to the intermittent nature of the green energy and due to the variation in consumption pattern may results additional financial impact on DSM charges of CSPDCL. Hence the variability and unpredictability of renewable generation contributes to deviations leading to payment of penalties for violation of operating limits, under the DSM Regulations.

8.22 Normally this impact shall be loaded to such consumers who avail green energy. However, in the present petition, CSPDCL is not charging this cost as there is no intrastate deviation mechanism for accurately assessing the cost of deviation.

8.23 In terms of the above, the computation of green tariff is summarized as under:

S. No.	Particular	Cost (Rs/ kWh)
1	Marginal Purchase cost	1.64
2	Banking/ Storage Cost	2.09
3	Backing Down Cost of Conventional Generator to absorb RE	0.98
4	<b>Total</b>	<b>4.71</b>

- 8.24** The actual premium for Green Tariff comes out to Rs. 4.71/kWh, however in order to promote Green Energy, CSPDCL is proposing Green Premium equivalent to only marginal purchase cost, which is Rs. 1.64/kWh. The proposed Green Tariff is a premium charge over existing retail tariff and all other charges as approved in the CSERC tariff order shall be applicable to respective category of consumers. This green tariff is proposed for annual revision, on a Petition by CSPDCL, subject to approval by Hon'ble Commission. Further, Green tariff being a new category, it is not possible to ascertain the number of consumers who may opt for this tariff category.
- 8.25** The consumers requiring green tariff may apply to CSPDCL six months in advance with their requirement and the duration of required supply. The consumers opting for green tariff shall have to avail it for a minimum period of 1 year. Therefore, it is not possible to quantify the sales quantum under this category presently. However, CSPDCL will capture and present the impact of this new tariff category during the truing up of FY 2024-25. In the view of the above, Hon'ble Commission may kindly approve a premium tariff of Rs. 1.64/kWh, over and above the retail supply tariffs of respective categories of consumers, who have opted for Green Power Tariff for the FY 2024-25.

#### **Change in TOD Tariff Hours**

- 8.26** The objective of this proposal is to determine the consumption pattern and Load curve of different category of consumers in Chhattisgarh and to re-design the ToD Tariff Structure, in order to optimize the power procurement expenses and also encourage demand response schemes.
- 8.27** The earlier objective of ToD tariff was to flatten the load curve, so that the generation capacity to be tied-up could be optimised and the power purchase during peak hours could be minimised, to optimise the power purchase cost. However, due to increasing contribution of power purchase from Solar and Wind Sources, the objective of ToD tariff is no longer flattening of the load curve but to fit the load curve to the available supply mix, in order to optimise the power purchase cost. The time slot for which incentive has to be provided and extent of incentive to be provided would depend on the reduction in power purchase expenses due to shift in the load curve to match the supply curve to the extent possible.
- 8.28** The Time of Day (ToD) tariff is a widely accepted tool for effective Demand Side Management (DSM). ToD tariff comprises of separate tariffs for peak hours and off-peak hours, in order to encourage reduction in the consumption during peak hours, when the availability of power is low, and, incentivise increased use of power, during off-peak hours, when the availability of power is relatively high. Presently applicably Time of the Day (ToD) period and the applicable tariff is as tabulated below.



Sr. No.	Period of use	Designated As	Applicable Tariff
01.	05:00 to 18:00 Hrs.	Normal Period	Normal rate of Energy Charges
02.	18:00 to 23:00 Hrs.	Peak Load Period	120 % of normal rate of Energy Charge
03.	23:00 to 05:00 Hrs.	Off-Peak Period	80% of normal rate of energy charges

8.29 The ToD tariff has been in vogue for many years and is helpful in flattening of the load curve but it mostly takes into consideration, the demand side of the equation. It does not consider or considers in minimum, the power generation/availability aspect. The basic logic behind designating any period as normal, off-peak or peak period is the load/demand. Following this principle, the day time of 05:00 AM to 06:00 PM was designated as "normal", when the availability was enough/normal and the demand was subdued. Similarly, during peak load period the demand is very high, whereas the availability remains normal, and therefore this period is denoted as "peak load". In the same way during night time the availability is normal, but demand drops, hence it was designated as an "off-peak period". Since, differential tariff is applicable during this period, the bulk consumers shift their load to "off-peak period", in order to avail power at reduced prices, thus increasing the load during this time. The logic behind the entire exercise is to scatter the load and synchronize availability. The table below shows the power availability position during solar generation period as per the current ToD timings. Graphs showing load curve (MD), solar power availability (MD) and power through other sources (MD) is placed as Annexure-I.

Month	Peak Power availability through Solar generation (MD)	Peak Power availability through other resources (MD)	Total Availability	Peak Demand Average			Difference between availability and demand during solar generation period
				Normal period 05 to 18 Hrs	Off-peak load period 23 to 05 Hrs	Peak load Hrs. 18 to 23 Hrs.	
Apr-2022	745	5180	5925	5134	5202	5242	791
May-2022	745	5180	5925	4761	4920	4638	1164
Jun-2022	745	5180	5925	4465	4564	4600	1460

Jul-2022	745	5180	5925	4584	4628	4687	1341
Aug-2022	745	5180	5925	4896	5027	4992	1029
Sep-2022	745	5180	5925	4757	4812	4848	1168
Oct-2022	745	5180	5925	4273	4297	4392	1652
Nov-2022	745	5180	5925	3749	3351	3655	2176
Dec-2022	745	5180	5925	4438	3714	4062	1487
Jan-2023	745	5180	5925	4755	4178	4389	1170
Feb-2023	745	5180	5925	5111	4749	4886	814
Mar-2023	745	5180	5925	5148	4927	5000	777

8.20. In the scenario mentioned above, no consideration has been given to the availability of power, which has been treated as stationary and demand management has been given prominence. This has changed drastically after Solar power generation started increasing. This increase in solar power production has led to a situation, when there is maximum availability of power during day time, i.e. 10:00 to 16:00 Hrs. with normal demand, but contrastingly this period has been denoted as "normal period", inspite of the fact that power availability is much higher as compared to "off-peak hours". In fact, power availability, both in the state and in the open market is low, during "off-peak hours" as bulk consumers try to use maximum power to avail benefits of low tariff. Contrastingly, this period has been denoted as "off-peak period" which needs to be rectified. So effectively the "normal period" becomes off-peak period owing to this massive influx of solar generation. Hence, there is an immediate need to reclassify/redefine the "period of use", in a way that it takes into account, the generation aspect.

**Application of above scenario vis-à-vis CSPDCL:**

8.21. Currently CSPDCL, is receiving 935 MW Solar Power from various solar power developers, under its Renewable Power Obligation, and in future further 1624 MW power is expected from under development Solar Projects.





8.22. From the table below it can be observed that during solar generation period of 10:00 Hrs to 04:00 Hrs there is surplus availability throughout the year. This is evidence that this period is no more a "normal period" but an "off-peak period". Hence, during this solar generation period, thermal generators have to back down, which pushes up per unit cost of purchase and therefore the average cost of supply. In addition, due to RPO and for promotion of solar power, solar generators "must run status", they cannot be asked to back down.

8.23. Now, in the scenario of rising solar inputs, during day time period of 10:00 Hrs. to 16:00 Hrs. (Peak production period of solar power), surplus power is available, whereas during the present "off-peak period" there is actually a power shortage period or power is just enough, due to rise in industrial consumption, which happens in order to take advantage of the low tariff. This can be established from the power purchase data for the FY 2022-23, which reveals that maximum power has been purchased either during the "peak load period" or during "off-peak period".

Monthly Average Power Purchase From Exchange					
Sr No	Month	Proposed Time Of The Day			Total Average Power Purchased
		23:00 to 10:00 Hrs (In MW)	10:00 to 16:00 Hrs (In MW)	16:00 to 23:00 Hrs (In MW)	(in MW)
1	Apr-22	139	78	184	402
2	May-22	31	9	38	78
3	Jun-22	39	0	36	76
4	Jul-22	0	0	0	0
5	Aug-22	93	13	66	172
6	Sep-22	75	1	47	124
7	Oct-22	0	0	1	1
8	Nov-22	0	0	0	0
9	Dec-22	30	0	32	63
10	Jan-23	33	0	2	36
11	Feb-23	84	7	82	173
12	Mar-23	6	0	8	14

8.24. As can be observed from the above data, power had to be purchased mostly during 23:00 Hrs to 10:00 Hrs, indicating high load and reduced availability. The situation becomes worse if a unit of CSPGCL/NTPC is down or under maintenance. Another important factor which contributes to the demand is Agriculture pump load. In the FY 2022-23, there was normal rainfall in Chhattisgarh

state, hence, Agriculture demand was normal, otherwise the need for power purchase from exchanges would have been more. Hence, there is need of power purchase from open market sources, during such time, which is either very costly or power is not available at all. In addition, solar generation has increased all over the country, hence ratio of power availability and demand during solar generation period, is high all over the country, which restricts sale of power during day time.

**Impact of proposed changes: -**

- 8.25. By shifting of "off peak period" to the day time, the consumers shall benefit as they shall get power at 20% rebate (on energy charges) during daytime in normal working hours.
- 8.26. Due to provision of 20% rebate during daytime i.e. during off-peak period, Industrial load may shift from present "off-peak period" (of 23:00 Hrs. to 05:00 Hrs.) to new "off-peak period" (10:00 hrs to 18:00 Hrs) thus, it shall help to synchronize the availability of power and flatten the load curve and CSPDCL will not require to purchase costly power.
- 8.27. Further, the cost of procuring costly power during the present "off-peak load period" will reduce and which can be passed on to the consumers in form of reduced tariff.
- 8.28. Day time backing down of thermal power generators can be avoided, which shall increase the load factor, thus decreasing per unit cost of generation and thereby the average cost of supply to the consumers.
- 8.29. Therefore, looking to submission in above paras, there is need to take corrective measures, accordingly it is proposed to change the present ToD timing as below:

Sr. No.	Existing provision of use of period	Proposed period of use	Applicable Tariff
01.	Normal Period (05:00 to 18:00 Hrs.)	Non- Solar Hours (23:00 to 10:00 Hrs.)	Normal rate of energy charges
02.	Evening Peak Load Period (18:00 to 23:00 Hrs.)	Peak Load Period (16:00 to 23:00 Hrs.)	120% of normal rate of energy charge
03.	Off-Peak Load Period (23:00 to 05:00 Hrs.)	Solar Hours (10:00 to 16:00 Hrs.)	80% of normal rate of energy charges.

- 8.30. This proposed change in TOD tariff shall not be applicable to consumers availing Green Energy tariff. The Provision of allowing additional demand, above the contract demand, for consumers who are covered under TOD tariff is also proposed to be removed.
- 8.31. The TOD tariff is currently applicable to consumers covered under HV 2, HV 3 and HV 4 category is proposed to be retained.



**8.32. Tariff for EV Charging:** Further as per MOP Notification No. 12/2/2020-EV-Part (5) – Part (1) (Comp No. 267520) dated 27.4.2023, following is proposed to be the tariff for Electric Vehicle.

Sr. No.	Proposed period of use	Applicable Tariff
01.	During Solar Hours	0.8 times of Average Cost of Supply (ACoS)
02.	During Non- Solar Hours	1.2 times of Average Cost of Supply (ACoS)

**8.33. Rebates and Incentives to be withdrawn:** The Petitioner would like to submit that the following Rebates and Incentives provided to the consumers of the State may be withdrawn:

**For HT categories:**

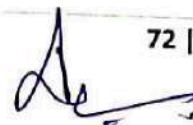
- a. Rebate of 20% on Energy charges calculated on entire consumption for traction sub-station of Indian railways on account of Load factor of 20% and above, propose to be withdrawn.
- b. Rebate of 5% on energy charges for the industries located at "Bastar avem Dakshin Kshetra Adivasi Vikas Pradhikaran" (notified vide Order dated August 22, 2005) and "Sarguja avem Uttar Kshetra Adivasi Vikas Pradhikaran" (notified vide Order dated August 22, 2005) is proposed to be withdrawn for the connections above 150 MVA.
- c. Currently Load Factor Rebate for consumers under HT Steel Industries category -(HV-4), is being provided to consumers having monthly load factor above 50%, with maximum rebate ranging from 1% to 25% on energy charge, calculated on entire energy consumption. The Hon'ble Commission is prayed that Load factor rebate to this category of consumers, may be provided only if the monthly Load factor is 65 % and above, at a flat rate of 5 % on normal energy charge calculated on entire energy consumption.



## 9. PRAYER TO COMMISSION

9.1 CSPDCL requests and prays to the Hon'ble Commission for the following:

- a) To invoke the power conferred to it under Section 62 of the Electricity Act, 2003, and to admit the Petition seeking approval of CSPDCL's final true up of FY 2022-23, Re-determination of ARR and Retail Tariff for FY 2024-25.
- b) To allow the revenue gap detailed in Chapter 5 of this Petition, which is against the disallowed expenses and revenue towards final true up of FY 2021-22, determined by Hon'ble Commission in Impugned tariff order dated 28.03.2023.
- c) To allow taxes, FBT, Cess, etc. as pass through on actual basis.
- d) To condone any inadvertent omissions/ errors/ shortcomings/delay in filing and permit the Petitioner to add/ change/ modify/ alter this filing and make further submissions as may be required at a later stage, during Regulatory process.
- e) To allow further submissions, addition and alteration to this Petition as may be necessitated at a later stage of Petition, considering the contents of Petition being voluminous and carrying numerous figures/ calculations.
- f) Treat the filing as complete in view of substantial compliance as also the specific requests for waivers with justification placed on record.
- g) To allow leave for submission of formats, computations of wheeling charges and voltage wise cost of supply during the course of proceeding of this Petition.
- h) Appeal no. 10290-10291 before Hon'ble Supreme Court containing issues related to Delayed Payment Surcharge, Sale of Surplus Power and 33 kV Distribution Loss Incentive and a writ Petition bearing no 1927/2016 before Hon'ble High Court of Chhattisgarh containing issues in Tariff Order dated 12<sup>th</sup> June 2014 passed by the Hon'ble Commission against final true up for FY 2011-12 and FY 2012-13 are pending. Further, Appeal No. 286 of 2017 against Tariff Order dated 26<sup>th</sup> March 2018 and Appeal No. 161 of 2021 are pending before Hon'ble ATE. Though outcome of issues raised in aforesaid matters may have bearing on successive tariff orders, yet all such issues have been considered in accordance with respective MYT Regulations and its amendments from time to time. Further, this Petition is without prejudice to any recourse or exercise of any other remedy in respect of the MYT Regulations or/and any relevant provision under the Act.
- i) To consider biomass generating stations under purview of Merit Order Despatch in the best interest of Power Purchase Cost as these stations contain two-part Tariff and are not intermittent in nature like Wind Generating Stations. CSPDCL understands that there shall be a liability related towards fixed cost arising out of non-scheduling of electricity and in backdrop of this understandings Hon'ble Commission may kindly allow claim of actual expenditure towards payment of its fixed cost towards biomass generators at the time of True Ups.





- j) To include the revenue gap created in the tariff order for FY 2023-24. CSPDCL had filed a review petition against the revenue gap of Rs.2924.53 Cr. created in the tariff order for FY 2023-24 and the Hon'ble Commission had disposed off the petition, giving liberty to CSPDCL to include this gap in the tariff petition for FY 2024-25.
- k) Hon'ble Commission is humbly prayed to adopt a rationalised tariff, across all category of consumers, in order to meet the cumulative revenue demand, except for consumers under Domestic category.
- l) Any other relief as it may deem fit and proper;

**BY THE APPLICANT THROUGH**

  
**Executive Director (RA&PM)**  
**CSPDCL, Raipur**