CHHATTISGARH STATE ELECTRICITY REGULATORY COMMISSION

RAIPUR

Bhilai Steel Plant Town Electrical Engineering Department.... P. No. 42 /2020 (T)

Bhilai Steel Plant Town Electrical Engineering Department.... Suo motu P. No. 18/2021 (T)

Bhilai Steel Plant Town Electrical Engineering Department.... Suo motu P. No. 12/2022 (T)

Present: **Hemant Verma, Chairman**
Vinod Deshmukh, Member (Judicial)
Pramod Kumar Gupta, Member

In the matter of –

1. Truing up of BSP (TEED) for the period from FY 2016-17 to FY 2019-20;
2. Determination of Aggregate Revenue Requirement (ARR) for FY 2021-22;
3. Determination of ARR for the Control Period from FY 2022-23 to FY 2024-25;
4. Determination of Retail Tariff for FY 2022-23.

ORDER

(Passed on 23/08/2022)

1. As per provisions of the Electricity Act, 2003 (hereinafter referred as 'the Act') and the Tariff Policy, the Commission has notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2021 (hereinafter referred as 'CSERC MYT Regulations, 2021') for determination of tariff for the Generating Company, Licensees, and CSLDC.

2. The Commission had notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred as 'CSERC MYT Regulations, 2015') for determination of tariff for the Generating Company, Licensees, and CSLDC, which is applicable for truing up for FY 2016-17 to FY 2021-22 for the Generating Company, Licensees, and CSLDC.

3. This Order is passed in respect of Suo Motu Petition No. 12 of 2022 for determination of ARR for the Control Period from FY 2022-23 to FY 2024-25 and Tariff for FY 2022-23 and the Petition filed by the Bhilai Steel Plant - Town Electrical Engineering Department (BSP-TEED) for approval of final true-up for FY 2016-17 to FY 2019-20 and determination of ARR for FY 2021-22.

4. This Order is passed under the provisions of Section 32(3) and Section 62 read with Section 86(1) of the Act. The Commission, before passing the combined Order on the above Petitions, has considered the documents filed along with the Petitions, suggestions from the consumers, their representatives and other stakeholders during the Public Hearing.

5. The Petition was made available on the Commission’s website. The Petition was also available at the offices of the Petitioner. A Public Notice along with the gist of the Petition was also published in the newspapers, and objections/suggestions were invited as per the procedure laid down in the Regulations. The Commission conducted Public Hearing in physical as well as video conferencing mode on the Petitions in its office at Raipur on 26/04/2022.

6. The Commission has undertaken final true-up for FY 2016-17 to FY 2019-20 for BSP-TEED, based on the audited accounts submitted by the Petitioner and in accordance with the provisions of the CSERC MYT Regulations, 2015.

7. In the Multi-Year Tariff (MYT) Order passed on December 27, 2017, the Commission had approved the ARR for the Control Period from FY 2016-17 to FY 2020-21 and Tariff for FY 2017-18 for BSP-TEED, in accordance with the provisions of the CSERC MYT Regulations, 2015.

8. The approved Tariff Schedule applicable is appended herewith as **Schedule**.

9. The Order will be applicable from 01/09/2022 and will remain in force till 31/03/2023 or till the issue of the next Tariff Order, whichever is later.

10. The Commission directs BSP-TEED to take appropriate steps to implement the Tariff Order.

Sd/-	**Sd/-**	**Sd/-**
(PRAMOD KUMAR GUPTA)	**(VINOD DESHMUKH)**	**(HEMANT VERMA)**
MEMBER	**MEMBER (JUDICIAL)**	**CHAIRMAN**

LIST OF ABBREVIATIONS

Abbreviation	**Description**
A&G	Administrative and General
ABR	Average Billing Rate
ACoS	Average Cost of Supply
AFC	Annual Fixed Charges
APTEL	Hon'ble Appellate Tribunal of Electricity
ARR	Aggregate Revenue Requirement
BSP	Bhilai Steel Plant
BSP-PSD	Bhilai Steel Plant- Power Supply Department
BSP-TEED	Bhilai Steel Plant-Town Electrical Engineering Department
CAGR	Compounded Annual Growth Rate
CIP	Capital Investment Plan
COD	Date of Commercial Operation
CPI	Consumer Price Index
CSD	Consumer Security Deposit
CSERC	Chhattisgarh State Electricity Regulatory Commission
CSLDC	Chhattisgarh State Load Despatch Centre
CSPDCL	Chhattisgarh State Power Distribution Company Limited
DISCOM	Distribution Company
DPS	Delayed Payment Surcharge
EA or Act	Electricity Act, 2003
FY	Financial Year
GFA	Gross Fixed Assets
GoI	Government of India
HPO	Hydro Purchase Obligation
HR	Human Resource
HT	High Tension
HUDCO	Housing and Urban Development Corporation Limited
HV	High Voltage
IoWC	Interest on Working Capital
kV	kilo Volt
kVA	kilo Volt-Ampere

Abbreviation	Description
kW	kilo Watt
kWh	kilo Watt-hour
LV	Low Voltage
M&G	Maintenance and General
MAT	Minimum Alternative Tax
MCLR	Marginal Cost of Funds based Lending Rate
MMC	Monthly Minimum Charges
MU	Million Units
MYT	Multi Year Tariff
NEP	National Electricity Policy
NPV	Net Present Value
NSPCL	NTPC-SAIL Power Company Limited
NTI	Non-Tariff Income
O&M	Operation and Maintenance
R&M	Repair and Maintenance
RBI	Reserve Bank of India
RE	Renewable Energy
REC	Renewable Energy Certificate
RoE	Return on Equity
RPO	Renewable Purchase Obligation
Rs.	Rupees
SAIL	Steel Authority of India Ltd.
SBI	State Bank of India
SLDC	State Load Despatch Centre
SLM	Straight Line Method
STU	State Transmission Utility
T&D Loss	Transmission and Distribution Loss
ToD	Time of Day
TVS	Technical Validation Session
WPI	Wholesale Price Index
YoY	Year-on-Year

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1 BACKGROUND AND BRIEF HISTORY

1.1 Background

Bhilai Steel Plant (BSP), a Unit of the Steel Authority of India (SAIL) is a Government of India Enterprise under Section 617 of the Companies Act, 1956. The Town Electrical Engineering Department of BSP (herein after referred as “BSP-TEED” or “the Petitioner”) is a division of BSP, responsible for electricity distribution and related services in the township area.

Prior to the formation of the State of Chhattisgarh, the Government of Madhya Pradesh had issued permission to Bhilai Steel Plant for distribution of electricity in its township under the provision of Section 28(1) of the erstwhile Indian Electricity Act, 1910, vide letter No. 3116/F-16/3/13/92 dated June 27, 1992.

In February 2005, SAIL-BSP submitted an Application before the Chhattisgarh State Electricity Regulatory Commission (CSERC or Commission) under Section 14 of the Electricity Act, 2003 (herein after referred as “the EA, 2003” or “the Act”) for the grant of a new Distribution Licence. The application was considered by the Commission, and a Distribution Licence was granted to SAIL-BSP vide No. 02/Licence/01/022005/1395, dated December 20, 2005, to distribute electricity in the designated area of township of BSP, except for HUDCO area.

1.2 The Electricity Act, 2003, Tariff Policy and Regulations

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

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

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

- Retail sale of electricity.

The Tariff Policy notified by the Government of India in January 2006, as well as the amended Tariff Policy notified in January 2016, provides the framework to balance the conflicting objectives of attracting investments to ensure availability of quality power and protecting the interest of consumers by ensuring that the electricity tariffs are affordable.

1.3 Procedural History

The Commission notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2015 (hereinafter referred to as CSERC MYT Regulations, 2015) on September 9, 2015. Based on the above Regulations, the Commission issued the MYT Order dated December 27, 2017 for BSP-TEED for the Control Period from FY 2016-17 to FY 2020-21.

Subsequently, BSP-TEED filed Petition No. 42/2020 in April 2020 for determination of True-up for FY 2016-17 and FY 2017-18. In this instant Petition, Petitioner proposed an overall hike of 5% across all tariff categories with respect to the existing tariff for FY 2019-20 in order to partially recover revenue shortfalls of previous years, with the balance revenue shortfall being borne by BSP-TEED. As FY 2019-20 was over, the Commission directed BSP-TEED to revise the Petition and submit proposal for determination of tariff for FY 2020-21. In response to this, BSP-TEED filed revised Petition in January 2021 for determination of tariff for FY 2021-22. Meanwhile, the Commission initiated suo-motu Petition No. 18/2021 for determination of tariff for FY 2021-22. As BSP-TEED had already proposed retail tariff for FY 2021-22, suo-motu Petition No. 18/2020 initiated by the Commission was merged with Petition No. 42/2020.

The Commission notified the Chhattisgarh State Electricity Regulatory Commission (Terms and Conditions for determination of tariff according to Multi-Year Tariff principles and Methodology and Procedure for determination of Expected revenue from Tariff and Charges) Regulations, 2021 (hereinafter referred as 'CSERC MYT Regulations, 2021') for determination of tariff for the Generating Company, Licensees, and CSLDC.

BSP-TEED was required to file a Petition for approval of true-up of FY 2020-21, Aggregate Revenue Requirement (ARR) for the Control Period from FY 2022-23 to FY 2024-25 and determination of retail tariff for FY 2022-23 by 30th November 2021 under Sections 86 (1) (a) and 62 of the Act read with CSERC (Terms and Conditions of determination of tariff according to Multi-Year Tariff Principle and Methodology and Procedure for determination of Expected revenue from Tariff and charges) Regulations, 2021.

In response to the Commission's directive to file the ARR petition for the Control Period from FY 2022-23 to FY 2024-25, BSP-TEED has not submitted its proposal. The Commission has initiated a Suo-Motu Petition No. 12 of 2022 for determination of ARR for the Control Period from FY 2022-23 to FY 2024-25 and retail tariff for FY 2022-23 because BSP-TEED has not filed the Petition within the stipulated time. Regarding retail tariff proposal for FY 2022-23, BSP-TEED has submitted that the retail tariff approved by the Commission for FY 2021-22 in Petition No. 42/2020 and Petition No. 18/2021 shall be continued for FY 2022-23 as well.

In the absence of a tariff proposal for FY 2022-23, the Commission has estimated BSP-TEED's ARR for FY 2022-23 using data filed in Petition No. 42/2020 and No. 18/2021. For requirement of any additional data/information, the same has been sought from BSP-TEED.

Objections/suggestions have already been invited on Petition Nos. 42/2020 and 18/2021 through the public notice published in newspapers on November 25, 2021. Objections/suggestions submitted in response to above mentioned public notice have also been considered in the disposal of the instant Suo Motu Petition No. 12/2022.

In this instant Order, the Commission has undertaken the final true-up for FY 2016-17 to FY 2019-20 and determined the ARR for the Control Period from FY 2022-23 to FY 2024-25 and Tariff for FY 2022-23 for BSP TEED in accordance with the provisions of the MYT Regulations, 2021. The Commission in this order has undertaken the final true-up based on audited accounts.

1.4 Admission of the Petition and Hearing Process

The Commission has initiated a Suo-Motu Petition No. 12 of 2022 for determination of ARR for the Control Period from FY 2022-23 to FY 2024-25 and retail tariff for FY 2022-23.

BSP-TEED was directed to publish the abridged version of the Petition in Hindi and English newspapers for inviting comments / objections / suggestions from all the stakeholders. The Petitions were made available on the website of the Commission as well as on the Petitioner's website. As required under Clause 21 of the CSERC (Details to be furnished by licensee etc.) Regulations, 2004, notices inviting suggestions /comments/objections from the stakeholders on the above Petition were published by the Petitioner in the leading newspapers of the State.

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

The notices under Section 94(2) of the Act were published in the leading newspapers of the State.

Objections and suggestions were received from stakeholders on the Petitions filed by BSP-TEED. The list of persons who filed the written submissions is annexed as **Annexure-I.**

Public hearing was held on April 26, 2022 in physical as well as through video conferencing. The Commission has ensured that the due process as contemplated under the law to ensure transparency and public participation was followed at every stage and adequate opportunity was given to all the persons to offer their views. The list of persons who submitted comments during the hearing is annexed as **Annexure-II.**

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

1.5 Organisation of the Order

This Order includes the following Chapters:

Chapter 1: Introduction (present Chapter) - provides a brief background of the regulatory process undertaken by the Commission.

Chapter 2: Objections Received, BSP-TEED's Response and Commission's Ruling - summarises the written and oral suggestions and objections raised. These are followed by the responses of the Petitioner and the Rulings of the Commission.

Chapter 3: True-up for FY 2016-17 to FY 2019-20 - deals with Final True-up for FY 2016-17 to FY 2019-20 as per CSERC MYT Regulations, 2015.

Chapter 4: ARR for FY 2021-22 - deals with approval of Aggregate Revenue Requirement for FY 2021-22 in accordance with CSERC MYT Regulations, 2015.

Chapter 5: ARR for FY 2022-23 to FY 2024-25 - deals with approval of Aggregate Revenue Requirement for the MYT Control Period from FY 2022-23 to FY 2024-25 in accordance with CSERC MYT Regulations, 2021.

Chapter 6: Determination of Tariff for FY 2022-23 – sets out the Commission’s Tariff Philosophy and the category-wise tariffs applicable for FY 2022-23.

Chapter 7: Tariff Schedule for FY 2022-23 – sets out the category-wise tariff and its applicability for FY 2022-23.

Chapter 8: Directives - discusses the directives issued to the Petitioner.

2 HEARING PROCESS, INCLUDING THE COMMENTS MADE BY VARIOUS STAKEHOLDERS, THE PETITIONER’S RESPONSES AND VIEWS OF THE COMMISSION

2.1 Objector’s submissions:

Following are the main objections/suggestions filed by the objectors:

i. Bhilai Steel Plant should bear the Revenue Gap of its electricity distribution business.

ii. There is theft of electricity in slum areas and illegal possession areas.

iii. BSP-TEED is not providing proper facilities as compared to facilities provided by CSPDCL, for instance, there is no arrangement for meter testing, temporary connections are being released without meter, etc.

iv. BSP-TEED is issuing electricity bills at higher rate to HSCL employees. The extra amount should be adjusted in future bills.

v. Persons selling electricity generated by their own generators are not paying Electricity Duty, however, BSP-TEED management is not taking any action.

vi. Due to recession in business, electricity tariff should not be increased.

vii. BSP-TEED should take strict action to prevent electricity theft in Kursipar area.

viii. The Commission should fix the tariff equal to the tariff of CSPDCL.

ix. BSP-TEED should also provide rebate in electricity bill as being done by CSPDCL. Estimation of ARR by BSP-TEED on higher side. In Bhilai township area, retired employees and lease holders are also residing who are financially weak, therefore, tariff should not be increased.

x. BSP TEED is supplying electricity to most of the consumers without meter, and electricity bills are being issued on estimation basis since last 10 years, therefore, BSP-TEED should be directed to meter all its consumers. Meter reading is not being done regularly. Faulty meters are not being replaced in a timely manner. BSP-TEED has not implemented the proposal of laying ABC cables. BSP-TEED is not taking any action in recovery of dues. BSP-TEED should be directed to pay the interest on security deposit. BSP-TEED should not release any new connection without meter. Distribution system of BSP-TEED should be handed over to CSPDCL as done in case of HUDCO so that domestic consumers of Bhilai Township area may also get the benefit of rebate in electricity bill upto 400 units and because CSPDCL has got expertise in the field of electricity distribution. BSP-TEED should be directed to comply with the direction given in the various Tariff Orders. BSP-TEED should be directed to upgrade the distribution system of Bhilai Township area. BSP-TEED should be directed to make arrangement for filing complaints related to electricity through online mode as done in CSPDCL. BSP-TEED should immediately dispose applications filed for issue of 3-phase connections.

Petitioner's Reply

i. BSP is already bearing the Revenue Gap from its main business.

ii. Electricity theft does exist; however, the act of theft is not encouraged by BSP-TEED.

iii. Meters are being checked by standard calibrated meter. In case of disputes, BSP-TEED is taking help of CSPDCL set up for meter testing arrangements. In case of temporary connection, BSP-TEED is billing the consumer as per the rate determined by the Commission.

iv. Consumers belonging to HSCL are being billed at same rate as being done for other consumers.

v. Recovery of Electricity Duty is responsibility of Chief Electrical Engineer, hence, BSP-TEED management has nothing to do with the matter of Electricity Duty applicable to the independent generators operating in Bhilai Township area.

vi. Electricity tariff in Bhilai Township area has not been increased since last four years and vide present proposal, very small increase in tariff has been proposed.

vii. For preventing electricity theft, BSP-TEED needs help of police department and requested the Commission to intervene in the matter.

viii. The Commission determines the tariff on the basis of ARR of the Distribution Licensee. Therefore, tariff of two Licensees cannot be compared.

ix. Providing rebate/subsidy to domestic consumers is the prerogative of the State Government.

x. At present, more than 98% consumers are being supplied electricity through meters. The work of 100% metering will be completed soon. BSP-TEED further submitted that rest of the suggestions are implementable and best efforts will be made to implement the same.

Commission's View

Commission has considered the above submissions and is of the view that to bear the Revenue Gap by the Licensee is prerogative of the licensee. Hence, the Commission cannot force any Licensee to bear the Revenue Gap. Regarding theft of electricity, the Commission has already issued directives to the different Licensees. While fixing the tariff, the Commission is guided by the Act and Regulations. As regards the rebate in electricity bill, the Commission is also of the view that providing rebate/subsidy is prerogative of the State Govt. Other issues raised by the objectors are mostly related to the Supply Code and Standards of Performance of Distribution Licensees. Hence, appropriate directions and provisions are available in the relevant Code and Regulations.

As regards the suggestion that BSP-TEED should hand over the distribution system/business to CSPDCL, the Petitioner submitted that to meet the directives, consistent efforts for transfer of responsibility of Power Distribution in BSP-TEED township area is being taken up with CSPDCL and in this regard, the Petitioner would approach the Commission at appropriate time.

The Commission is of the view that it is for the management of BSP-TEED to take an appropriate view in the matter, considering the merits and de-merits of the same. However, irrespective of whether BSP-TEED continues to operate as a Distribution Licensee or otherwise, the quality of supply to consumers should be ensured.

3 TRUE-UP FOR FY 2016-17 TO FY 2019-20

3.1 Background

The Commission notified the CSERC MYT Regulations, 2015 for the third MYT Control Period from FY 2016-17 to FY 2020-21 on September 9, 2015. Subsequently, the Commission notified the First Amendment to CSERC MYT Regulations, 2015 on June 16, 2017. The Commission issued the MYT Order on December 27, 2017 for BSP-TEED approving the ARR for the Control Period from FY 2016-17 to FY 2020-21 and Tariff for FY 2017-18.

Subsequently, BSP-TEED filed Petition No. 42/2020 in April 2020 for determination of True-up for FY 2016-17 and FY 2017-18. In response to the Commission's direction, BSP-TEED filed revised Petition in January 2021 for approval of true up of FY 2016-17 to FY 2019-20 and determination of tariff for FY 2021-22 in accordance with the CSERC MYT Regulations, 2015. As BSP-TEED had already proposed retail tariff for FY 2021-22, Suo-Motu Petition No. 18/2020 initiated by the Commission was merged with Petition No. 42/2020.

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

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

(a) A comparison of the audited performance of the applicant for the previous financial year(s) with the approved forecast of such previous financial year(s), subject to the prudence check including pass-through of impact of uncontrollable factors;

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

(c) Other relevant details, if any."

In accordance with the above Regulation, the Commission, in the present Order, has undertaken true-up of ARR for FY 2016-17 to FY 2019-20 on the basis of Audited Accounts of BSP-TEED.

In this Chapter, the Commission has analysed all the elements of actual expenditure and revenue of BSP-TEED for FY 2016-17 to FY 2019-20 and considered the final true-up of expenses and revenue in accordance with Regulation 10 of the CSERC MYT Regulations, 2015. The Commission has approved the sharing of gains and losses on account of controllable factors between BSP-TEED and its beneficiaries, in accordance with Regulation 13 of the CSERC MYT Regulations, 2015.

3.2 Energy Sales

BSP-TEED's submission

The Petitioner submitted the actual energy sales for FY 2016-17 to FY 2019-20 as shown in the following Table:

Table 3-1: Energy Sales as submitted by BSP-TEED for FY 2016-17 to FY 2019-20 (MU)

Category	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Actual	MYT Order	Actual	MYT Order	Actual	MYT Order	Actual
LV-1: Domestic	111.43	111.43	114.34	110.46	117.34	102.32	120.41	106.10
LV-2: Non-Domestic	27.83	27.83	29.18	28.61	30.60	25.36	32.08	27.07
LV-3: Industry	0.51	0.51	0.51	0.57	0.51	0.47	0.52	0.48
LV-4: Public Utilities	8.19	8.19	8.22	8.70	8.24	8.33	8.27	8.15
LV-5: Temporary Supply	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04
Total LV	**147.99**	**147.99**	**152.29**	**148.38**	**156.73**	**136.52**	**161.31**	**141.84**
HV-1: Residential	0.20	0.20	0.20	0.23	0.20	0.16	0.20	0.13
HV-2: Non-residential and General Purpose	8.67	8.67	9.15	10.23	9.67	11.73	10.21	11.27
HV-3: Public Utilities	12.62	12.62	12.62	13.87	12.62	11.60	12.62	11.60
Total HV	**21.49**	**21.49**	**21.98**	**24.33**	**22.49**	**23.49**	**23.04**	**23.01**
Total Sales	**169.48**	**169.48**	**174.27**	**172.71**	**179.22**	**160.01**	**184.35**	**164.84**

Commission's View

Actual sales for FY 2016-17 are same as sales approved in MYT Order since the Commission had approved sales for FY 2016-17 considering actual sales. It is observed that the actual sales for FY 2017-18 to FY 2019-20 are lower that the sales approved in the MYT Order.

For the purpose of the True-up, the Commission approves the actual energy sales for FY 2016-17 to FY 2019-20 as submitted by the Petitioner, as shown in the following Table:

Table 3-2: Energy Sales for FY 2016-17 to FY 2019-20 as approved by Commission (MU)

Category	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
LV- Sales	147.99	147.99	148.38	148.38	136.52	136.52	141.84	141.84
HV- Sales	21.49	21.49	24.33	24.33	23.49	23.49	23.01	23.01
Total Sales	**169.48**	**169.48**	**172.71**	**172.71**	**160.01**	**160.01**	**164.84**	**164.84**

3.3 Distribution Loss and Energy Balance

BSP-TEED's submission

The Petitioner submitted the actual Distribution Loss for FY 2016-17 to FY 2019-20 as shown in the following Table:

Table 3-3: Distribution Loss for FY 2016-17 to FY 2019-20 as submitted by BSP-TEED

Category	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Actual	MYT Order	Actual	MYT Order	Actual	MYT Order	Actual
Distribution Loss	14.82%	14.87%	14.50%	13.75%	14.00%	15.50%	13.50%	12.75%

BSP-TEED submitted that Distribution Losses are within approved targets for FY 2017-18 and FY 2019-20, while it is marginally higher than the approved targets for FY 2016-17 and FY 2018-19. Further, Distribution Losses of BSP-TEED for each year are significantly lower than the distribution loss approved by the Commission for CSPDCL in its true-up of FY 2016-17, FY 2017-18 and provisional true-up of FY 2018-19.

The Petitioner submitted the Energy Balance for FY 2016-17 to FY 2019-20 based on the actual sales and actual Distribution Loss as shown in the following Table:

Table 3-4: Energy Balance for FY 2016-17 to FY 2019-20 as submitted by BSP-TEED

Category	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Actual	MYT Order	Actual	MYT Order	Actual	MYT Order	Actual
Energy Sales (MU)	169.48	169.48	174.27	172.71	179.22	160.01	184.35	164.84
Distribution Losses (%)	14.82%	14.87%	14.50%	13.75%	14.00%	15.50%	13.50%	12.75%
Distribution Losses (MU)	29.50	29.59	29.55	27.53	29.18	29.35	28.77	24.09
Energy Requirement (MU)	198.98	199.08	203.82	200.24	208.40	189.36	213.12	188.93

Commission's View

The Commission notes that the actual Distribution Losses submitted by the Petitioner for FY 2017-18 and FY 2019-20 are lower than the target Distribution Losses approved by the Commission in the MYT Order. However, the actual Distribution Losses submitted by the Petitioner for FY 2016-17 and FY 2018-19-20 are higher than the target Distribution Losses approved in the MYT Order.

The Commission has accepted the actual Distribution Losses for the purpose of true-up for respective years.

The Commission has computed the approved energy requirement based on the actual energy sales and approved Distribution Losses for FY 2016-17 to FY 2019-20, as shown in the following Table:

Table 3-5: Energy Balance for FY 2016-17 to FY 2019-20 as approved by the Commission

Category	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Energy Sales (MU)	169.48	169.48	172.71	172.71	160.01	160.01	164.84	164.84
Distribution Losses (%)	14.87%	14.87%	13.75%	13.75%	15.50%	15.50%	12.75%	12.75%
Distribution Losses (MU)	29.59	29.59	27.53	27.53	29.35	29.35	24.09	24.09
Energy Requirement (MU)	199.08	199.08	200.24	200.24	189.36	189.36	188.93	188.93

BSP-TEED's actual Distribution Losses for FY 2016-17 and FY 2018-19 are higher than the target Distribution Losses approved by the Commission in the MYT Order. The CSERC MYT Regulations, 2015 specifies as under, as regards sharing of efficiency losses on account of over-achievement/ under-achievement of Distribution Losses:

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

13.1. The mechanism for sharing of aggregate net gain on account of over achievement in reference to the target set in tariff order for efficiency linked controllable items other than energy losses computed in accordance to Regulation 7l shall be passed on to the beneficiary / consumer(s) and retained by the generating *company or the licensee or SLDC, as the case may be, in the ratio of 50:50 or as may be specified in the Order of the Commission passed under these Regulations.*

Provided that the mechanism for sharing of aggregate net gain on account of over achievement in reference to the target set in tariff order for energy losses computed in accordance to Regulation 7l shall be passed on to the consumer(s) and retained by the licensee, as the case may be, in the ratio of 2:1 or as may be specified in the Order of the Commission passed under these Regulations.

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

Accordingly, the Commission has assessed the impact of under-achievement of Distribution Loss vis-à-vis the targeted Distribution Loss for FY 2016-17 and FY 2018-19, and shared 50% of the efficiency losses on account of under-achievement of Distribution Losses, as shown in the Table below:

Table 3-6: Sharing of Loss approved by the Commission on account of underachievement of Distribution loss for FY 2016-17 and FY 2018-19 (Rs. Lakh)

Particulars	FY 2016-17	FY 2018-19
Energy Input (MU)	199.08	189.36
Actual Distribution Loss (%)	14.87%	15.50%
Targeted Distribution Loss (%)	14.82%	14.00%
Under-achievement in Distribution Loss (%)	0.05%	1.50%
Average Power Purchase Rate (Rs./kWh)	3.39	3.73
MU shortfall	0.10	2.84
Under-achievement amount (Rs. Lakh)	3.27	105.96
Under-achievement to be borne by BSP-TEED (Rs. Lakh)	1.64	52.98

The above impact of under-achievement to be borne by BSP-TEED has been adjusted against the ARR of BSP-TEED for FY 2020-21.

The Commission notes that the metering system of BSP-TEED is not 100% and it is also not reliable. Therefore, Distribution Loss cannot be ascertained accurately. Under such circumstances, it may not be appropriate to allow efficiency gains on account of over-achievement of Distribution Loss. Therefore, the Commission has not considered the impact of over-achievement of Distribution Loss for FY 2017-18 and FY 2019-20.

3.4 Power Purchase Cost

BSP-TEED's submission

The Petitioner submitted that the power was purchased from NSPCL PP-3, PP-2 and PP-1 for the period from FY 2016-17 to FY 2019-20. The actual source-wise power purchase quantum and cost is shown in the following Table:

Table 3-7: Power Purchase Cost for FY 2016-17 to FY 2019-20 as submitted by BSP-TEED

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	**Petition**	**MYT Order**	**Petition**	**MYT Order**	**Petition**	**MYT Order**	**Petition**
Quantum of Power Purchase (MU)								
NSPCL -PP3	181.46	181.46	142.09	182.54	144.50	171.70	146.98	151.57
Short Term Power	-	-	47.36	-	48.17		48.99	
Non-Solar RPO (PPI & PP2)	17.52	17.52	14,27	17.62	15.63	17.66	17.05	37.37
Solar	-	0.10	0.10	0.08	0.10	-	0.10	-
Total	**198.98**	**199.08**	**203.82**	**200.24**	**208.40**	**189.36**	**213.12**	**188.93**
Power Purchase Cost (Rs. Lakh)								
NSPCL -PP3	6,758.75	6,758.75	5,292.47	7,296.30	5,382.23	7,023.99	5,474.57	8,525.67
Short Term Power	-	-	1,463.56	-	1,488.38		1,513.92	
Non-Solar RPO (PPI & PP2)	-	-	-	-	-	-	-	-
Solar Purchase	-	-	-	-	-	-	-	-
Solar REC Purchase	-	-	39.80		71.98		105.60	
Total	**6,758.75**	**6,758.75**	**6,795.84**	**7,296.30**	**6,842.58**	**7,023.99**	**7,094.09**	**8,525.67**
Avg. Power Purchase Rate (Rs./kWh)								
NSPCL -PP3	3.72	3.72	3.72	4.00	3.72	4.09	3.72	5.63
Short Term Power	-	-	3.09	-	3.09	-	3.09	-
Non-Solar RPO (PPI & PP2)	-	-	-	-	-	-	-	-
Total	**3.40**	**3.40**	**3.33**	**3.64**	**3.33**	**3.71**	**3.33**	**4.51**

The Petitioner submitted that the Commission in its Order dated December 27, 2017 on SAIL's Petition No. 9 of 2017 in the matter of revised ARR for FY 2016-17 to FY 2020-21 had ruled as follows:

"As regards the Non-Solar RPO, the power produced from the cogeneration units of NSPCL is used for internal purposes and this system is in existence for a long-time.

The fuel used in the generation is a by-product, i.e., waste heat recovery and currently no cost is being determined for the same. The benefits of the zero-cost power produced from this source is passed on the consumers and hence, the Commission has not considered any cost implication for the quantum of power produced from NSPCL PP1 and NSPCL PP2, as submitted by BSP-TEED. The Commission has projected the power from these sources for meeting the Non-Solar RPO."

In accordance with the above ruling of the Commission, the Petitioner submitted that the total Renewable Power Purchase by the Petitioner significantly exceeds the total RPO targets for FY 2016-17 and FY 2019-20. The marginal shortfall in RPO target for FY 2017-18 and FY 2018-19 is more than adequately compensated by significantly higher Renewable power purchase in FY 2019-20. The details of RPO compliance are shown in the below table:

Table 3-8: RPO compliance for FY 2016-17 to FY 2019-20 submitted by BSP-TEED

Particular	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		Cumulative	
	MYT Order	Actuals	MYT Order	Actuals	MYT Order	Actuals	MYT Order	Actuals	MYT Order	Actuals
Total RPO (%)	8.00%	8.85%	9.00%	8.84%	11.00%	9.32%	13.00%	19.78%		
Total Power Purchase (Actual) (MU)	199.08		200.24		189.36		188.93			
Quantum of Renewable Purchase towards RPO (MU)	15.93	17.62	18.02	17.70	20.83	17.66	24.56	37.37	79.34	90.34

The Petitioner submitted that although there is a marginal shortfall in RPO compliance for FY 2017-18 and FY 2018-19 on standalone basis, the cumulative power purchase from RE Sources for FY 2016-17 to FY 2019-20 was 90.34 MU, which significantly exceeds the cumulative RPO requirement of 79.34 MU. Accordingly, Petitioner requested the Commission to allow the same.

Commission's View

The Petitioner has submitted the source-wise break up of power purchase quantum from NSPCL PP1, PP2 and PP3 and Solar in the Formats.

In the MYT Order, the Commission had directed the Petitioner to purchase at least 25% of quantum from open market in order to reduce the power purchase cost for the consumers. In this regard, the Petitioner submitted that there is no dedicated corridor with adequate metering arrangement for purchase of power from outside sources, other than NSPCL. Since, the project requires huge investment, it could not be undertaken in past years. Hence, no power was purchased from open market in past years. The Petitioner submitted that to meet the directives, consistent efforts for transfer of responsibility of Power Distribution in BSP-TEED township area is being taken up with CSPDCL and in this regard, the Petitioner would approach the Commission at appropriate time.

The average power purchase cost is not only higher than that approved by the Commission in the MYT Order, but the power purchase cost in FY 2019-20 is much higher compared to average power purchase cost in FY 2016-17 to FY 2018-19. The average power purchase rate for power from NSPCL - PP3 has increased from Rs. 4.09/kWh in FY 2018-19 to Rs. 5.63/kWh in FY 2019-20.

The Commission has verified the actual power purchase quantum and cost from the audited annual accounts. The Commission has accepted the Petitioner's justification for the failure to purchase power from the open market. However, this situation cannot be allowed to continue, and the Petitioner must take active and serious efforts to mitigate the issue of high power purchase cost.

In continuation of the earlier practice, the Commission has considered the quantum of power purchased from NSPCL PP1 and NSPCL PP2 towards meeting the Non-Solar RPO. Further, since the cumulative power purchase from RE Sources for FY 2016-17 to FY 2019-20 exceeds the cumulative RPO requirement of 79.34 MU, the Commission allows the shortfall in RPO compliance for FY 2017-18 and FY 2018-19 to be met on cumulative basis from FY 2016-17 to FY 2019-20. The cost of power purchase from NSPCL PP1 and NSPCL PP2 has been considered as zero, as per past practice, and as per the Petitioner's submissions. However, the Commission is of the view that unless the corresponding quantum of power purchase is reduced from NSPCL PP3 purchase, the cost of Non-Solar RPO shall not be zero, rather, it will amount to Non-Solar power being procured at rate applicable to NSPCL PP3. Hence, the Commission has considered the average rate of power purchase of NSPCL PP3 only for the quantum of purchase from NSPCL PP3, and the quantum of power purchase from NSPCL PP1 and NSPCL PP2 have been considered at zero cost.

Further, the small quantum of Solar Power purchased by the Petitioner in FY 2016-17 and FY 2017-18 has also been considered.

After scrutiny of the material placed on record including the audited annual accounts and the actual source-wise power purchase cost, the approved power purchase cost for FY 2016-17 to FY 2019-20 after true-up is shown in the following Table:

Table 3-9: Power Purchase Cost for FY 2016-17 to FY 2019-20 as approved by the Commission

Category	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Power Purchase Cost (Rs. Lakh)	6758.75	6758.75	7,296.30	7,296.30	7,023.99	7,023.99	8,525.67	8,525.67
Power Purchase Quantum (MU)	199.08	199.08	200.24	200.24	189.36	189.36	188.93	188.93
Avg. Power Purchase Cost (Rs./kWh)	3.40	3.40	3.64	3.64	3.71	3.71	4.51	4.51

3.5 O&M Expenses

BSP-TEED's submission

The Petitioner submitted that it has considered the actual O&M expenses based on the audited accounts. The actual O&M expenses for FY 2016-17 to FY 2019-20 as submitted by the Petitioner is shown in the following Table:

Table 3-10: O&M Expenses for FY 2016-17 to FY 2019-20 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
Employee Expenses	1,692.49	1,165.71	1,845.63	1,209.53	2,012.63	1,196.65	2,194.73	1,249.86
A&G Expenses	153.51	217.56	163.9	123.41	174.99	295.64	186.83	232.44
R&M Expenses	136.43	96.20	145.66	81.47	155.52	57.27	166.04	93.57
Total O&M Expenses	**1,982.44**	**1,479.48**	**2,155.19**	**1,414.41**	**2,343.14**	**1,549.56**	**2,547.61**	**1,575.87**

The Petitioner submitted that BSP-TEED has incurred lower actual O&M expenses as compared to the O&M expenses approved by the Commission. Since BSP TEED's actual O&M expenses are lower than normative O&M expenses, it is entitled to sharing of gains on account of lower O&M expenses as per provisions of CSERC MYT Regulations, 2015, as amended from time to time. However, BSP-TEED is not claiming efficiency gains on this account and is passing on the entire efficiency gains to the consumers. Therefore, the Petitioner requested the Commission to approve the actual O&M expenses as per the audited accounts of FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20.

Commission's View

The Commission had approved O&M expenses of Rs. 1982.44 Lakh, Rs. 2155.19 Lakh, Rs. 2343.14 Lakh and Rs. 2547.61 Lakh in the MYT Order for FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20, respectively. As against this, the Petitioner has claimed actual O&M Expenses of Rs. 1479.48 Lakh, Rs. 1414.41 Lakh, Rs. 1549.56 Lakh and Rs. 1575.87 Lakh for FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20, respectively based on audited accounts.

Actual O&M Expenses

The Commission has verified the actual O&M expenses from the Audited Accounts of FY 2016-17 to FY 2019-20. Accordingly, the actual O&M Expenses considered by the Commission for sharing of gains and losses are given in the following Table:

Table 3-11: Actual O&M Expenses for FY 2016-17 to FY 2019-20 as approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Employee Cost	1165.71	1165.71	1209.53	1209.53	1196.65	1196.65	1249.86	1249.86
A&G Expenses	96.00	97.30	81.00	81.00	57.00	57.30	94.00	93.60
R&M Expenses	217.56	217.56	123.41	123.41	295.64	295.64	232.44	232.44
Total O&M Expenses	**1479.27**	**1480.57**	**1413.94**	**1413.94**	**1549.29**	**1549.59**	**1576.30**	**1575.90**

Normative O&M Expenses

Regulation 57.4 of the CSERC MYT Regulations, 2015 specifies as under:

"

(a) Operation and Maintenance (O&M) Expenses for the distribution licensee shall include:

I. Employee Cost;

II. Administrative and general Expenses

III. Repairs and Maintenance Expenses

(b) The Commission shall stipulate a separate trajectory for each of the components of O&M expenses viz. employee cost, R&M expense and A&G expense for the control period.

(c) The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e. FY 2015-16 shall be derived on the basis of the normalized average of the actual employee expenses, excluding pension fund contribution and impact of pay revision arrears, available in the accounts for the previous five years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any other expense of non-recurring nature shall also be excluded while determining normalized average for the previous five years.

(d) The normalization shall be done by applying last five years average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expenses (excluding impact of pension fund contribution and pay revision, if any) for each year of the control period.

At the time of true-up the employee costs shall be considered after taking into account the actual increase in CPI during the year instead of projected inflation for that period. Provided further that impact of pay revision (including arrears) and pension fund contribution shall be allowed on actual during true-up as per accounts, subject to prudence check and any other factor considered appropriate by the Commission." Further, Regulation 57.4 (e) and (f) of CSERC MYT

Regulations, 2015 regarding A&G Expenses and R&M Expenses specify as under: "(e) The administrative and general expenses and repair and maintenance expenses, for the base year i.e. FY 2015-16, shall be derived on the basis of the normalized average of the actual administrative and general expenses and repair and maintenance expenses, respectively available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.

(f) The normalization shall be done by applying last five-year average increase in Wholesale Price Index (WPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the administrative and general expense and repair and maintenance expenses for each year of the control period.

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

Based on the above Regulations, the Commission has considered the normative A&G expenses and R&M expenses for FY 2016-17 to FY 2019-20. The Commission has considered escalation factor of 1.73%, 2.92%, 4.27% and 1.68% for R&M expenses and A&G Expenses for FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20 based on the applicable WPI. The revised normative A&G expenses and R&M expenses approved for FY 2016-17 to FY 2019-20 are shown in the Table below:

Table 3-12: Revised Normative O&M Expenses for FY 2016-17 to FY 2019-20 as approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	Petition	True-up	Petition	True-up	Petition	True-up	Petition	True-up
A&G Expenses	-	146.27	-	150.54	-	156.97	-	159.61
R&M Expenses	-	130.00	-	133.80	-	139.51	-	141.86

The Commission notified the CSERC MYT Regulations, 2016 (First amendment) on June 16, 2017 and made it effective from April 1, 2017, whereby employee expenses are excluded from accounting of sharing of (gains)/losses. The relevant Regulation is as under:

"In clause 13.1 of the principal regulations, the following proviso shall be inserted, namely: -

Provided further that the employee cost shall not be factored in for sharing of gains or losses on account of Operation and Maintenance expenses"

In line with above amendment, the employee expenses are now considered as uncontrollable expenses and therefore, the actual employee expenses approved in the truing-up of FY 2016-17 to FY 2019-20 after due prudence check, are considered without any sharing of efficiency gains/losses.

As per the provisions in the Regulations for sharing of (gains)/losses of O&M expenses, the Commission has computed the efficiency gains/losses for FY 2016-17 to FY 2019-20 on the basis of revised normative A&G expenses and R&M expenses, in accordance with the CSERC MYT Regulations, 2015, as shown in the following Table:

Table 3-13: Revised Normative O&M Expenses for FY 2016-17 to FY 2019-20 as approved by the Commission (Rs. Lakh)

Particulars	Revised Normative	Actual Expenses	Efficiency (Gain)/Loss	Entitlement of (Gain)/Loss	
				BSP-TEED	Consumers
FY 2016-17					
Employee Expenses	1165.71	1165.71	-	-	-
A&G Expenses	146.27	97.30	(48.97)	(24.48)	(24.48)
R&M Expenses	130.00	217.56	87.56	43.78	43.78
Total	**1441.98**	**1480.57**	**38.59**	**19.29**	**19.29**
FY 2017-18					
Employee Expenses	1209.53	1209.53	-	-	-
A&G Expenses	150.54	81.00	(69.54)	(34.77)	(34.77)
R&M Expenses	133.80	123.41	(10.39)	(5.19)	(5.19)
Total	**1493.87**	**1413.94**	**(79.93)**	**(39.96)**	**(39.96)**
FY 2018-19					
Employee Expenses	1196.65	1196.65	-	-	-
A&G Expenses	156.97	57.30	(99.67)	(49.84)	(49.84)
R&M Expenses	139.51	295.64	156.13	78.06	78.06
Total	**1493.14**	**1549.59**	**56.45**	**28.23**	**28.23**
FY 2019-20					
Employee Expenses	1249.86	1249.86	-	-	-
A&G Expenses	159.61	93.60	(66.01)	(33.01)	(33.01)
R&M Expenses	141.86	232.44	90.58	45.29	45.29
Total	**1551.34**	**1575.90**	**24.56**	**12.28**	**12.28**

The Commission approves the sharing of efficiency loss after true-up for FY 2016-17 to FY 2019-20 as shown above.

3.6 Capitalisation

BSP-TEED's submission

The Petitioner submitted that it has considered the actual capitalisation for FY 2016-17 to FY 2019-20 based on the audited accounts. The normative Debt : Equity Ratio of 70:30 has been considered. The Petitioner submitted the capitalisation and funding arrangement for FY 2016-17 to FY 2019-20 as shown in the Table below:

Table 3-14: Capitalisation for FY 2016-17 to FY 2019-20 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
Capitalisation	268.97	-	441.00	-	657.00	161.82	78.34	102.76
Funding arrangement								
Equity	80.69	-	132.30	-	197.10	48.55	23.50	30.83
Debt	188.28	-	308.70	-	459.90	113.27	54.84	71.93
Total Capitalisation	**268.97**	**-**	**441.00**	**-**	**657.00**	**161.82**	**78.34**	**102.76**

Commission's View

The Commission notes that the Petitioner has claimed capitalisation as 'Nil' for FY 2016-17 and FY 2017-18, while capitalisation of Rs. 161.82 Lakh and Rs. 102.76 Lakh has been claimed for FY 2018-19 and FY 2019-20, respectively. The Commission has considered the capitalisation based on the Audited Accounts. Further, the Commission has considered the normative Debt : Equity ratio, in accordance with the CSERC MYT Regulations, 2015 and the approach adopted in previous Tariff Orders.

The capitalisation and funding pattern approved by the Commission for FY 2016-17 to FY 2019-20 are shown in the Table below:

Table 3-15: Capitalisation for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Capitalisation	**-**	**-**	**-**	**-**	**161.82**	**161.82**	**102.76**	**102.76**
Funding arrangement								
Equity	-	-	-	-	48.55	48.55	30.83	30.83
Debt	-	-	-	-	113.27	113.27	71.93	71.93
Total Capitalisation	**-**	**-**	**-**	**-**	**161.82**	**161.82**	**102.76**	**102.76**

3.7 Depreciation

BSP-TEED's submission

The Petitioner submitted that it has considered the closing GFA of FY 2015-16 approved by the Commission as the opening GFA of FY 2016-17. Further, the addition of GFA for FY 2016-17 to FY 2019-20 are considered as per the audited accounts of the respective years. The Petitioner has calculated depreciation for FY 2016-17 to FY 2019-20 as per the scheduled depreciation rates specified in the CSERC MYT Regulations, 2015, excluding depreciation on assets funded through consumer contribution. The GFA and Depreciation claimed by the Petitioner for FY 2016-17 to FY 2019-20 are shown in the following Table:

Table 3-16: Depreciation for FY 2016-17 to FY 2019-20 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
Opening GFA	1,437.40	1,437.40	1706.37	1,437.40	2147.37	1,437.40	2804.37	1,599.22
Addition of GFA	268.97	-	441.00	-	657.00	161.82	78.34	102.76
Closing GFA	1706.37	1,437.40	2147.37	1,437.40	2804.37	1,599.22	2882.71	1,701.98
Depreciation	**70.27**	**44.35**	**87.13**	**37.82**	**113.20**	**42.30**	**130.67**	**130.53**

Commission's View

The Commission observed that BSP TEED has claimed Depreciation of Rs. 130.53 Lakh in FY 2019-20 compared to Rs. 42.30 Lakh in FY 2018-19 as per audited accounts.

For computation of depreciation, the Commission has considered the opening GFA for FY 2016-17 as per closing GFA approved for FY 2015-16 in the MYT Order. Further, the addition of GFA, i.e., capitalisation during the year, has been considered as per the audited accounts for the respective years. The scheduled rate of depreciation has been considered in accordance with CSERC MYT Regulations, 2015. Since the rate of Depreciation claimed by the Petitioner for FY 2019-20 works out to 7.91% compared to 2.79% for FY 2018-19, the Commission has allowed rate of Depreciation as 2.79% only for FY 2019-20 also.

The depreciation approved by the Commission for FY 2016-17 to FY 2019-20 after true-up is shown in the following Table:

Table 3-17: Depreciation for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Opening GFA	1,437.40	1,437.40	1,437.40	1,437.40	1,437.40	1,437.40	1,599.22	1,599.22
Addition of GFA	-	-	-	-	161.82	161.82	102.76	102.76
Closing GFA	1,437.40	1,437.40	1,437.40	1,437.40	1,599.22	1,599.22	1,701.98	1,701.98
Depreciation	**44.35**	**44.35**	**37.82**	**37.82**	**42.30**	**42.30**	**130.53**	**45.99**

3.8 Interest on Loan

BSP-TEED's submission

The Petitioner submitted that it has considered the opening normative loan balance for FY 2016-17 equal to the closing normative loan balance of FY 2015-16 approved by the Commission. Further, the Petitioner has considered the closing normative loan balance of FY 2016-17, FY 2017-18 and FY 2018-19 as the opening normative loan balance for FY 2017-18, FY 2018-19 and FY 2019-20, respectively. The capitalization during the year has been apportioned between debt and equity in the ratio of 70:30 in line with Regulation 17 of CSERC MYT Regulations, 2015. For the purpose of computation of interest on loan amount, the Petitioner has considered the Interest rate as 11% as approved by the Commission in the MYT Order dated

December 27, 2017 and previously in Order dated May 7, 2014 in Suo-Motu Petition No. 08 of 2013 and 76 of 2013.

The interest on loan capital for FY 2016-17 to FY 2019-20 are shown in the following Table:

Table 3-18: Interest on Loan for FY 2016-17 to FY 2019-20 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
Opening Net Normative loan for the year	79.24	79.24	197.25	34.89	418.82	-	765.52	68.05
Addition of normative loan during the year	188.28	-	308.70	-	459.90	113.27	54.84	71.93
Repayment of normative loan during the year	70.27	44.35	87.13	34.89	113.20	45.22	130.67	130.53
Closing Net Normative loan	197.25	34.89	418.82	-	765.52	68.05	689.69	9.45
Rate of Interest (%)	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%
Interest on loan capital	**15.21**	**6.28**	**33.88**	**1.92**	**65.14**	**3.74**	**80.04**	**4.26**

Commission's View

The Commission has considered the opening loan balance for FY 2016-17 same as the closing loan balance for FY 2015-16 as approved in the MYT Order. The addition of normative loan has been considered at 70% of actual capitalisation during the year. The allowable depreciation for the year has been considered as the normative repayment for the year. Interest on the loan capital considered by the Commission after True-up for FY 2016-17 to FY 2019-20 is shown in the following Table:

Table 3-19: Interest on Loan for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Opening Net Normative loan for the year	79.24	79.24	34.89	34.89	-	-	68.05	70.97
Addition of normative loan during the year	-	-	-	-	113.27	113.27	71.93	71.93
Repayment of normative loan during the year	44.35	44.35	34.89	34.89	45.22	42.30	130.53	45.99
Closing Net Normative loan	34.89	34.89	-	-	68.05	70.97	9.45	96.92
Rate of Interest (%)	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%	11.00%
Interest on loan capital	**6.28**	**6.28**	**1.92**	**1.92**	**3.74**	**3.90**	**4.26**	**9.23**

3.9 Interest on Consumer Security Deposit

BSP-TEED's submission

The Petitioner has considered actual Consumer Security Deposits (CSD) as per Audited Accounts for FY 2016-17 to FY 2019-20. Rate of interest on CSD has been considered at 7% as approved by the Commission in the MYT Order. Interest on CSD has been computed on average balance during the year. Interest on CSD claimed by the Petitioner for respective years, is shown in the following Table:

Table 3-20: Interest on Consumer Security Deposits for FY 2016-17 to FY 2019-20 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
Opening Balance of CSD	363.30	363.30	366.00	366.00	388.74	368.35	411.47	369.00
Addition of CSD	2.70	2.70	22.74	2.35	22.74	1.05	22.74	(0.43)
Closing Balance of CSD	366.00	366.00	388.74	368.35	411.47	369.40	434.21	368.97
Rate of Interest (%)	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
Interest on CSD	**25.11**	**25.53**	**26.42**	**25.70**	**28.01**	**25.82**	**29.60**	**25.84**

Commission's View

The Commission has verified the actual interest paid on the CSD as per the Audited Accounts for FY 2016-17 to FY 2019-20. Accordingly, the interest on CSD approved by the Commission after true-up for FY 2016-17 to FY 2019-20 is shown in the following Table:

Table 3-21: Interest on CSD for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Interest on CSD	25.53	25.53	25.70	25.70	25.82	25.82	25.84	25.84

3.10 Interest on Working Capital

BSP-TEED's submission

The Petitioner has calculated working capital requirement as per the norms specified in Regulations 25.1(d) and 25.1(e) for Distribution Wheeling business and Retail Supply business, respectively. Receivables for computation of working capital are considered to be one month of actual revenue billed as per Regulation 25.2 of CSERC MYT Regulations, 2015. Rate of interest on working capital is considered as 12.80% for FY 2016-17, 12.60% for FY 2017-18, 12.20% for FY 2018-19 and 12.55% for FY 2019-20 as per Regulation 25.4 of CSERC MYT Regulations, 2015.

The computation of Interest on Working Capital for FY 2016-17 to FY 2019-20 is shown in Table below:

Table 3-22: Interest on Working Capital for FY 2016-17 to FY 2019-20 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
O&M Expenses for one month	165.20	123.29	179.60	117.87	195.26	129.13	212.30	131.32
Maintenance Spares @ 40% of R&M Expenses	54.57	38.48	58.26	32.59	62.21	22.91	66.42	37.43

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
Receivables for one month	648.40	624.41	704.26	655.07	723.86	631.78	744.23	646.08
Less: Consumer security deposit	366.00	366.00	388.74	368.35	411.47	369.40	434.21	368.97
Working Capital Requirement	502.18	420.18	553.38	437.17	569.86	414.42	588.74	445.85
Rate of Interest (%)	12.80%	12.80%	12.80%	12.60%	12.80%	12.20%	12.80%	12.55%
Interest on Working Capital	**64.28**	**53.78**	**70.83**	**55.08**	**72.94**	**50.56**	**75.36**	**55.95**

Commission's View

The normative Interest on Working Capital (IoWC) has been computed in accordance with the CSERC MYT Regulations, 2015. The Commission has considered the revised normative O&M expenses for computing the working capital requirement. The receivables have been considered equivalent to one month's actual revenue received. The rate of interest has been considered as 12.80%, 12.60%, 12.20% and 12.55% for FY 2016-17, FY 2017-18, FY 2018-19 and FY 2020-21, respectively, in accordance with CSERC MYT Regulations, 2015. The normative IoWC approved by the Commission after true-up for FY 2016-17 to FY 2019-20 is shown in the following Table:

Table 3-23: Interest on Loan for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
O&M Expenses for one month	123.29	120.17	117.87	124.49	129.13	124.43	131.32	129.28
Maintenance Spares @ 40% of R&M Expenses	38.48	52.00	32.59	53.52	22.91	55.81	37.43	56.75
Receivables for one month	624.41	624.41	655.07	655.07	631.78	631.78	646.08	646.08

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Less: Consumer security deposit	366.00	366.00	368.35	368.35	369.40	369.40	368.97	368.97
Working Capital Requirement	420.18	430.58	437.17	464.73	414.42	442.61	445.85	463.13
Rate of Interest (%)	12.80%	12.80%	12.60%	12.60%	12.20%	12.20%	12.55%	12.55%
Interest on Working Capital	**53.78**	**55.11**	**55.08**	**58.56**	**50.56**	**54.00**	**55.95**	**58.12**

3.11 Provision for Bad and Doubtful Debts

BSP-TEED's submission

Petitioner submitted that no bad debts have been written off for FY 2016-17 to FY 2019-20. Therefore, it had not considered the same in the true-up for FY 2016-17 to FY 2019-20.

Commission's View

As submitted by BSP-TEED, the Commission has not considered any provision for bad and doubtful debts for the purpose of true-up for FY 2016-17 to FY 2019-20.

3.12 Return on Equity

BSP-TEED's submission

The Petitioner has considered the opening normative equity for FY 2016-17 to be equal to the closing normative equity of FY 2015-16 approved by the Commission. Further, the closing normative equity of FY 2016-17 is considered as the opening normative equity of FY 2017-18 and so on. As capitalisation in FY 2016-17 and FY 2017-18 is nil; no equity addition is considered during these years. The addition to equity during the year for FY 2018-19 and FY 2019-20 has been considered as 30% of the amount of capitalisation during these years. For computation of return on equity, the Petitioner has considered the pre-tax base rate of 16% as per Regulation 22.2 of CSERC MYT Regulations, 2015. As per Regulation 22.3 of CSERC MYT Regulations, 2015, tax rate for purpose of truing-up shall be taken as Nil, in case no tax is payable during financial year. Therefore, return on equity for FY 2016-17 to FY 2019-20 is computed as shown in Table below without grossing-up with tax rate:

Table 3-24: Return on Equity for FY 2016-17 to FY 2019-20 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
Opening Equity	133.99	133.99	214.68	133.99	346.98	133.99	544.08	182.54
Addition during the year	80.69	-	132.30	-	197.10	48.55	23.50	30.83
Closing Equity	214.68	133.99	346.98	133.99	544.08	182.54	567.58	213.36
Return on Equity @ 16%	27.89	21.44	44.93	21.44	71.28	25.32	88.93	31.67

Commission's View

The RoE has been computed in accordance with Regulation 17 of the CSERC MYT Regulations, 2015. The Commission has considered the opening equity for FY 2016-17 same as the closing equity for FY 2015-16 as approved in the MYT Order. The addition of equity has been considered at 30% of actual capitalisation during the year. The Commission has considered rate of return as 16% on average equity for the year. The RoE approved after True-up for FY 2016-17 to FY 2019-20 is shown in the following Table:

Table 3-25: Return on Equity for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Opening Equity	133.99	133.99	133.99	133.99	133.99	133.99	182.54	182.54
Addition during the year	-	-	-	-	48.55	48.55	30.83	30.83
Closing Equity	133.99	133.99	133.99	133.99	182.54	182.54	213.36	213.36
Rate of Return on Equity	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%	16.00%
Return on Equity	**21.44**	**21.44**	**21.44**	**21.44**	**25.32**	**25.32**	**31.67**	**31.67**

3.13 Non-Tariff Income

BSP-TEED's submission

Petitioner has submitted Non-Tariff Income for FY 2016-17 to FY 2019-20 as shown in below:

Table 3-26: Non-Tariff Income for FY 2016-17 to FY 2019-20 as submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition	MYT Order	Petition
Non-Tariff Income	136.72	136.72	111.25	120.39	111.25	75.67	111.25	100.32

Commission's View

The actual Non-Tariff Income received for FY 2016-17 to FY 2019-20 has been approved by the Commission based on the audited accounts as show below:

Table 3-27: Non-Tariff Income for FY 2016-17 to FY 2019-20 approved by the Commission (Rs. Lakh)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20	
	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up	True-up Petition	Approved after True-up
Non-Tariff Income	136.72	136.72	120.39	120.39	75.67	75.67	100.32	100.32

3.14 Revenue from Sale of Electricity

BSP-TEED's submission

Petitioner has submitted Revenue from Sale of Electricity for FY 2016-17 to FY 2019-20, as shown in the Table below:

Table 3-28: Revenue from Sale of Electricity for FY 2016-17 to FY 2019-20 as submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
Revenue from Sale of Electricity	7,492.90	7,860.80	7,581.42	7,752.93

Commission's View

The actual revenue from sale of electricity received for FY 2016-17 to FY 2019-20 has been approved by the Commission based on the audited accounts, same as submitted by the Petitioner.

3.15 Aggregate Revenue Requirement for FY 2016-17 to FY 2019-20

Based on the above, the Net ARR and Revenue Gap/(Surplus) approved by the Commission after true-up for FY 2016-17 to FY 2019-20 is shown in the following Table:

Table 3-29: Net ARR and Revenue Gap/(Surplus) for FY 2016-17 to FY 2019-20 as approved by the Commission (Rs. Lakh)

Sr. No.	Particulars	FY 2016-17			FY 2017-18			FY 2018-19			FY 2019-20		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved	MYT Order	Petition	Approved
1	Power Purchase Cost	6,758.75	6,758.70	6,758.75	6,795.84	7,296.30	7,296.30	6,942.58	7,024.00	7,023.99	7,094.09	8,525.70	8,525.67
2	O&M Expenses	1,982.43	1,479.48	1,480.57	2,155.19	1,414.41	1,413.94	2,343.14	1,549.56	1,549.59	2,547.60	1,575.87	1,575.90
3	Depreciation	70.27	44.35	44.35	87.13	37.82	37.82	113.20	42.3	42.30	130.67	130.53	45.99
4	Interest on Loan	15.21	6.28	6.28	33.88	1.92	1.92	65.14	3.74	3.90	80.04	4.26	9.23
5	Interest on Security Deposit	25.11	25.53	25.53	26.42	25.7	25.70	28.01	25.82	25.82	29.60	25.84	25.84
6	Interest on Working Capital Requirement	64.28	53.78	55.11	70.83	55.08	58.56	72.94	50.56	54.00	75.36	55.95	58.12
7	Return on Equity	27.89	21.44	21.44	44.93	21.44	21.44	71.28	25.32	25.32	88.93	31.67	31.67
8	Provision for Bad & Doubtful Debt	-	-	-	-	-	-	-	-	-	-	-	-
9	Less: (Gain)/Loss on Sharing O&M Efficiency			19.29			(39.96)			28.23			12.28
10	Less: Licensee's share of Loss on account of higher distribution losses			1.64			0.00			52.67			0.00
11	Less: Non-Tariff Income	136.72	136.72	136.72	111.25	120.39	120.39	111.25	75.67	75.67	111.25	100.32	100.32
12	**Net ARR**	**8,807.22**	**8,252.84**	**8,234.38**	**9,102.98**	**8,732.28**	**8,775.25**	**9,525.04**	**8,645.62**	**8,568.36**	**9,935.04**	**10,249.49**	**10,159.83**
13	Less: Revenue from Sale of Power		7,492.90	7,492.90		7,860.80	7,860.80		7,581.42	7,581.42		7,752.93	7,752.93
14	**Revenue Gap/(Surplus)**		**759.97**	**741.48**		**871.48**	**914.45**		**1,064.21**	**986.94**		**2,496.56**	**2,406.90**

4 ARR FOR FY 2021-22

4.1 Background

The Commission notified the CSERC MYT Regulations, 2015 for the third MYT Control Period from FY 2016-17 to FY 2020-21 on September 9, 2015. Subsequently, the Commission notified the First Amendment to CSERC MYT Regulations on June 16, 2017.

The Commission vide Public Notice CSERC letter 03/CSERC/Tariff 2020/1228 dated November 26, 2020 has notified the extension of CSERC MYT Regulations, 2015 for next year, i.e., FY 2021-22. Due to the intervening COVID-19 and subsequent lockdowns imposed, the new MYT Regulations could not be notified. Accordingly, the Generating Company(s) and Licensee(s) were informed to file the Tariff Petition for FY 2021-22 on or before December 31, 2020 by adopting of principles of CSERC MYT Regulations, 2015.

BSP-TEED has submitted the Petition for determination of ARR and Tariff for FY 2021-22. BSP-TEED has submitted details of projection of sales, power purchase and all other components of ARR as per the CSERC MYT Regulations, 2015 and in the Formats prescribed by the Commission.

Regulation 9.1 and 9.2 of the CSERC MYT Regulations, 2015 specifies as under:

"9.1. Notwithstanding anything contained in these Regulations, the Commission shall at all times have the authority, either on suo-moto basis or on a Petition filed by the applicant, to determine the tariff including terms and conditions thereof, of any generating company or STU/ transmission licensee or distribution licensee or SLDC.

9.2 Tariff in respect of a generating station may be determined for the whole of the generating station or a stage or unit or block of the generating station, and tariff for the transmission system may be determined for the whole of the transmission system or any part of the transmission system. The retail supply tariff, wheeling charges and miscellaneous charges for the distribution licensee shall also be decided by the Commission for whole of the distribution system."

In accordance with the above Regulation, in the present Order, the Commission has determined the ARR of BSP-TEED for FY 2021-22, on the basis of the submissions by BSP-TEED.

4.2 Energy Sales

BSP-TEED's submission

Petitioner submitted that the actual sales for the period from FY 2013-14 to FY 2019-20 have been considered for sales projections. For projecting the category-wise energy sales for FY 2021-22, the Petitioner has considered the past growth trends in each consumer category as explained below:

- BSP-TEED has adopted trend analysis method for projecting the sales of domestic, non-domestic, industrial and other categories. This method assumes that the underlying factors, which drive the demand for electricity, are expected to follow the same trend as in the past.
- As per this method, Compounded Annual Growth Rates (CAGRs) were calculated from the past actual sales figures (FY 2013-14 to FY 2019-20) for each category, corresponding to different period of time in the past years for LV and HV, respectively, along with the year-on-year (YoY) growth. CAGR has been computed for each category of consumers for the past 7-year period from FY 2013-14 to FY 2019-20.
- Subject to the specific characteristics of each consumer category, appropriate CAGR has been considered as the basis of sales projection for that category.

The Petitioner submitted that the analysis of the historic growth rate provides the performance of respective category and hence, forms the basis of forecasting the sales for that category. The Petitioner has considered category-wise CAGR or appropriate growth rates for its forecast and has taken that CAGR, which is best suitable trend for that consumer category. The category-wise CAGR considered by BSP-TEED is provided in the Table below:

Table 4-1: CAGR considered by BSP-TEED for Sales Projection for FY 2021-22

Tariff Category	YoY	2-year CAGR	3-year CAGR	4-year CAGR	5-year CAGR	6-year CAGR	CAGR considered	Basis of Growth Rates
Low Voltage								
LV1: Domestic	3.70%	-1.99%	-1.62%	-1.42%	-2.19%	-0.21%	3.70%	YoY
LV2: Non-domestic	6.76%	-2.72%	-0.91%	1.17%	2.35%	1.92%	6.76%	YoY
LV3: Industry	1.05%	-8.64%	-2.29%	-2.20%	-2.50%	-0.83%	1.05%	YoY
LV4: Public Utilities	-2.23%	-3.23%	-0.18%	0.02%	0.06%	0.07%	0.07%	6-year CAGR
LV5: Temporary Supply	-11.46%	0.75%	0.50%	0.38%	15.22%		15.22%	5-year CAGR

Tariff Category	YoY	2-year CAGR	3-year CAGR	4-year CAGR	5-year CAGR	6-year CAGR	CAGR considered	Basis of Growth Rates
High Voltage								
HV 1: Residential	-15.19%	-24.13%	-12.85%	-17.80%	-23.03%	-16.83%	0.00%	No growth
HV 2: Non-residential and General Purpose	-3.89%	4.96%	9.14%	6.32%	3.99%	7.39%	9.14%	3-year CAGR
HV 3: Public Utilities	0.00%	-8.54%	-2.76%	-5.76%	-5.55%	-5.57%	0.00%	No growth

The Petitioner has projected the sales projections for FY 2021-22 as shown in the Table below:

Table 4-2: Energy Sales projected by BSP-TEED for FY 2021-22 (MU)

Consumer Category	Projected Sales
LV-1: Domestic	114.10
LV-2: Non-Domestic	30.86
LV-3: Industry	0.49
LV-4: Public Utilities	8.16
LV-5: Temporary Supply	0.05
Total LV	**153.65**
HV-1: Residential	0.13
HV-2: Non-Residential and General Purpose	13.42
HV-3: Public Utilities	11.60
Total HV	**25.16**
Total Sales	**178.82**

Commission’s View

For the projection of the energy sales, the Commission has adopted the trend analysis method, wherein the energy sales are projected based on CAGR of past periods. Since the actual sales for FY 2020-21 are not available, the actual energy sales for FY 2019-20 approved in this Order has been considered as base energy sales for the projection of energy sales for FY 2021-22.

The Commission has computed the CAGR for different periods for each consumer category based on the actual sales for the period from FY 2013-14 to FY 2019-20. The Commission, after analysing the historic growth trends in each consumer category, considered the basis for forecasting the sales for that category. The category-wise CAGR considered by the Commission is shown in the Table below:

Table 4-3: CAGR considered by the Commission for projecting the sales for FY 2021-22

Consumer Category	CAGR	Basis of Growth Rates
LV-1: Domestic	3.70%	YoY
LV-2: Non-Domestic	2.35%	5-year CAGR
LV-3: Industry	1.05%	YoY
LV-4: Public Utilities	0.06%	5-year CAGR
LV-5: Temporary Supply	0.50%	3-year CAGR
HV-1: Residential	0.00%	No growth
HV-2: Non-Residential and General Purpose	3.99%	5-year CAGR
HV-3: Public Utilities	0.00%	No growth

On the basis of the above computed CAGR, the Commission has computed the energy sales for FY 2021-22 considering the actual sales for FY 2019-20 as base year sales. The energy sales estimated by the Commission for FY 2021-22 is shown in the following Table:

Table 4-4: Energy Sales for FY 2021-22 as estimated by Commission (MU)

Consumer Category	Petition	Approved
LV-1: Domestic	114.10	114.10
LV-2: Non-Domestic	30.86	28.36
LV-3: Industry	0.49	0.49
LV-4: Public Utilities	8.16	8.16
LV-5: Temporary Supply	0.05	0.04
Total LV	**153.65**	**151.14**
HV-1: Residential	0.13	0.13
HV-2: Non-Residential and General Purpose	13.42	12.19
HV-3: Public Utilities	11.60	11.60
Total HV	**25.16**	**23.92**
Total Sales	**178.82**	**175.06**

4.3 Distribution Loss and Energy Balance

BSP-TEED's submission

The Petitioner submitted that the Commission in MYT Order had approved Distribution Loss target of 14.50% for FY 2017-18 and prescribed 0.50% reduction in subsequent years. Accordingly, the Commission had approved Distribution Loss of 13% for FY 2020-21. Petitioner submitted that through its multi-pronged efforts, it has brought down the distribution losses from 15.54% in FY 2015-16 to below 13% in FY 2019-20. However, further reduction of distribution tosses from current levels will require significant expenditure and efforts. Further, the Petitioner has not been passing on the revenue gap to the consumers, and has absorbed the entire costs towards reduction of distribution loss. Therefore, it would be not prudent to reduce the Distribution Loss target for FY 2021-22. Accordingly, the Petitioner requested the Commission to approve distribution loss target for FY 2021-22 at the same level as approved for FY 2020-21, i.e., 13%.

For computation of energy balance, the Petitioner has considered projected energy sales of FY 2021-22 and distribution loss of 13%. Accordingly, total energy requirement for FY 2021-22 is computed as shown in Table below:

Table 4-5: Energy Balance submitted by BSP-TEED for FY 2021-22

Particulars	FY 2021-22
LV Sales (MU)	153.65
HV Sales (MU)	25.16
Total Energy Sales (MU)	178.82
Overall Distribution Losses (%)	13.00%
Overall Distribution Losses (MU)	26.72
Total Energy Requirement (MU)	205.53

Commission's View

The Commission had approved Distribution Loss target of 13% for FY 2020-21. Further, the Commission has approved actual Distribution Loss of 12.75% for FY 2019-20 in this Order against the target Distribution Loss of 13.50%. Since at the lower levels of Distribution Loss, the annual reduction in Distribution Losses would be lower, hence, the Commission has considered Distribution Loss reduction of 0.25% for FY 2020-21 and FY 2021-22 compared to actual Distribution Loss of FY

2019-20. Accordingly, the Distribution Loss estimated by the Commission for FY 2021-22 is shown in the following Table:

Table 4-6: Distribution Loss for FY 2021-22 as estimated by the Commission

Consumer Category	Petition	Approved
Distribution Loss	13.00%	12.25%

After taking into account the projected Energy Sales and approved Distribution Loss, the Energy Balance estimated by the Commission for FY 2021-22 is given in the Table below:

Table 4-7: Energy Balance estimated by the Commission for FY 2021-22

Particulars	Petition	Approved
LV Sales (MU)	153.65	151.14
HV Sales (MU)	25.16	23.92
Total Energy Sales (MU)	178.82	175.06
Overall Distribution Losses (%)	13.00%	12.25%
Overall Distribution Losses (MU)	26.72	24.43
Total Energy Requirement (MU)	205.53	199.49

4.4 Power Purchase Cost

BSP-TEED's submission

Petitioner submitted that in order to meet the power requirement for supply to its consumers in the Bhilai Township, it has entered into a long-term Power Supply Arrangement (PSA) with BSP-PSD (BSP, Power Supply Department). At later stage, Amendment No.2 was executed for supply of power from NSPCL PP 3, PP2 and BSP-PPI. Accordingly, it has planned to meet its power purchase requirement for FY 2021-22 from NSPCL PP-3, NSPCL PP-2 and PP-1.

Petitioner submitted that the power imported through power supply arrangement is already attributed through Co-generation power at zero cost to the extent of RPO, Hence, BSP TEED is fulfilling its RPO accordingly. Hence, non-solar RPO will be met through power purchase from NSPCL. No separate cost is considered for compliance of RPO. The Petitioner has considered average cost of power purchase from NSPCL for FY 2021-22 same as that approved for FY 2020-21 in the Order dated December 27, 2017. Accordingly, the computed power purchase cost for FY 2021-22 is as below:

Table 4-8: Power Purchase Cost for FY 2021-22 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2021-22
Quantum of Power Purchase (MU)	
NSPCL -PP3	205.53
Power Purchase Cost (Rs. Lakh)	
NSPCL -PP3	7655.50

Commission's View

The Commission has considered the power purchase from NSPCL PP1, PP2 and PP3 as per the existing PSA for meeting the projected energy requirement. For projecting the cost of power purchase, the Commission has considered the actual average power purchase rate of FY 2018-19 for, i.e., Rs. 3.71 per kWh, since the actual average power purchase rate of FY 2019-20 (Rs. 4.51 per kWh) is significantly higher.

The RPO targets specified for FY 2020-21 in CSERC (Renewable Purchase Obligation and REC framework Implementation) Regulations, 2016 have been considered at same levels for FY 2021-22 also, i.e., 6.50% and 8.50% for Solar and Non-Solar RE, respectively. Based on this, the Commission has worked out Solar and non-Solar targets of 12.97 MU and 16.96 MU, respectively, for FY 2021-22.

As regards the Non-Solar RPO, the power produced from the co-generation units of NSPCL is used for internal purposes and this system is in existence for a long-time. The fuel used in the generation is a by-product, i.e., waste heat recovery and currently no cost is being determined for the same. The benefits of the zero-cost power produced from this source is passed on the consumers and hence, the Commission has not considered any cost implication for the quantum of power produced from NSPCL PP1 and NSPCL PP2, as submitted by BSP-TEED. The Commission has projected the power from these sources for meeting the Non-Solar RPO.

As regards the Solar RPO, since there is no tied up Solar generation capacity, the Commission has considered the Solar Renewable Energy Certificates (RECs) at the floor price of Re. 1.00/kWh for the quantum required to meet the Solar RPO.

The Commission directs BSP-TEED to fulfil the Solar RPO requirement either by actual purchase of Solar power or purchase of equivalent RECs.

In view of the above, the power purchase quantum and cost estimated by the Commission for FY 2021-22 is shown in the following Table:

Table 4-9: Power Purchase Cost estimated by the Commission for FY 2021-22

Particulars	Petition	Approved
Quantum of Power Purchase (MU)		
NSPCL -PP3	205.53	199.49
Power Purchase Cost (Rs. Lakh)		
NSPCL -PP3	7655.50	7401.19
Solar REC Purchase		129.67
Total Power Purchase Cost (Rs. Lakh)	7655.50	7530.86
Avg. Power Purchase Rate (Rs./kWh)		
NSPCL -PP3	3.72	3.71
Total	3.72	3.78

4.5 O&M Expenses

BSP-TEED's submission

The Petitioner submitted that the Commission, in its Order dated December 27, 2017, had projected Employee Expenses, R&M Expenses, and A&G Expenses for FY 2016-17 to FY 2020-21 based on normalised value for FY 2015-16, as per the methodology specified in CSERC MYT Regulations, 2015. Employee Expenses were normalised using average increase in CPI from FY 2010-11 to FY 2014-15, i.e., 9.05%. R&M and A&G expenses were normalised using average increase in WPI from FY 2010-11 to FY 2014-15, i.e., 6.77%.

The Petitioner submitted that the Commission then escalated the normalised Employee Expenses by average increase in CPI from FY 2010-11 to FY 2014-15, i.e., 9.05% on year-on-year basis to project Employee Expenses for FY 2016-17 to FY 2020-21. Similarly, the Commission escalated R&M and A&G Expenses by average increase in WPI from FY 2010-11 to FY 2014-15, i.e., 6.77% to project R&M and A&G Expenses from FY 2016-17 to FY 2020-21. Since, actual WPI and CPI data is available till FY 2019-20, it would be prudent to consider actual inflation in WPI and CPI for each year till FY 2019-20.

The Petitioner submitted that as per the methodology adopted by the Commission, CPI and WPI data considered by Reserve Bank of India (RBI) has been considered. New Series for WPI, with base year as FY 2011-12, was introduced in April 2011, and the prevalent WPI series (Base Year FY 2004-05) was discontinued in March 2017. However, since the Commission had derived the normalised R&M and A&G Expenses for base year (FY 2015-16) based on the prevalent WPI series, the

Petitioner has considered prevalent WPI series for computing actual WPI inflation till FY 2016-17. However, due to discontinuation of prevalent WPI series, new WPI series (Base Year FY 2011-12) has been relied upon to compute WPI inflation for FY 2017-18, FY 2018-19 and FY 2019-20. Further, since FY 2020-21 is ongoing and actual CPI and WPI data is still not available for FY 2020-21, escalation factors for FY 2019-20 have been considered for FY 2020-21. Accordingly, WPI and CPI inflation have been considered as shown in the Table below:

Table 4-10: Inflation Rate as submitted by BSP-TEED

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Avg. of 5 years increase
CPI	4.12%	3.08%	5.45%	7.36%	7.36%	5.48%
WPI	3.68%	2.92%	4.28%	1.68%	1.68%	2.85%

The Petitioner has adopted the following methodology to project O&M norms for FY 2021-22:

- Normalised Employee Expenses for FY 2015-16, as approved by the Commission, have been escalated by actual CPI inflation for each year till FY 2020-21, as shown in the table above.
- As per the principle adopted by the Commission in the Tariff Order dated December 27, 2017, the Employee Expenses so arrived for FY 2020-21 have been escalated by average increase in CPI since last 5 years, i.e., 5.48% to compute Employee Expenses for FY 2021-22.
- Similarly, Normalised R&M and A&G Expenses for FY 2015-16, as approved by the Commission in its Order dated December 27, 2017, have been escalated by actual WPI inflation for each year till FY 2020-21, as shown in the Table above.
- R&M and A&G Expenses so arrived for FY 2020-21 have been escalated by average increase in WPI since last 5 years, i.e., 2.85%, to compute the R&M and A&G Expenses for FY 2021-22.

Accordingly, Petitioner has computed O&M Expenses for FY 2021-22 as shown in the Table below:

Table 4-11: O&M Expenses as submitted by BSP-TEED for FY 2021-22 (Rs. Lakh)

Particulars	Normalised for FY 16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Employee Expenses	1,552.06	1616.00	1665.78	1756.56	1885.90	2024.76	2135.62
A&G Expenses	143.78	149.07	153.42	159.99	162.67	165.40	170.11
R&M Expenses	127.79	132.49	136.36	142.20	144.58	147.01	151.19
Total	**1,823.63**	**1,897.56**	**1,955.57**	**2,058.75**	**2,193.16**	**2,337.17**	**2,456.92**

Commission's View

As regards O&M Expenses, Regulation 57.4 of the CSERC MYT Regulations, 2015 specifies as under:

*"**57.4 Operation and Maintenance expenses***

Employee Cost

a) The employee cost, excluding pension fund contribution and impact of pay revision arrears for the base year i.e., FY 16, shall be derived on the basis of the normalized average of the actual employee expenses excluding pension fund contribution and impact of pay revision arrears available in the accounts for the previous five (5) years immediately preceding the base year FY 2015-16, subject to prudence check by the Commission. Any other expense of nonrecurring nature shall also be excluded while determining normalized average for the previous five (5) years.

b) The normalization shall be done by applying last five year average increase in Consumer Price Index (CPI) on year to year basis. The average of normalized net present value for FY 2010-11 to FY 2014-15, shall then be used to project base year value for FY 2015-16. The base year value so arrived, shall be escalated by the above inflation rate to estimate the employee expense (excluding impact of pension fund contribution and pay revision, if any) for each year of the Control period.

A&G Expenses and R&M Expenses

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

Commission. Any expense of non-recurring nature shall be excluded while determining normalized average for the previous five (5) years.

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

The Commission has derived the O&M Expenses for FY 2021-22 in accordance with the above said Regulations. The above Regulations provides that the normalization shall be done applying last five-year average increase in CPI on year-to-year basis for employee expenses and WPI for A&G expenses and R&M expenses. The Commission has escalated the employee expenses approved for FY 2020-21 in MYT Order with the escalation factor of 5.04%, which is the average increase in CPI in the last five years, to derive the employee expenses for FY 2021-22. Similarly, the Commission has escalated the normative A&G expenses and R&M expenses approved for FY 2020-21, with the escalation factor of 2.38%, which is the average increase in WPI in the last five years. The Commission has approved the components of O&M expenses for FY 2021-22 as shown in the Table below:

Table 4-12: O&M Expenses estimated by the Commission for FY 2021-22 (Rs. Lakh)

Particulars	Petition	Approved
Employee Expenses	2135.62	2513.96
A&G Expenses	170.11	204.21
R&M Expenses	151.19	181.49
Total O&M Expenses	**2456.92**	**2899.66**

4.6 Capitalisation

BSP-TEED’s submission

The Petitioner submitted that it has estimated capitalisation of Rs. 31.89 Lakh during FY 2020-21 and has not planned any capitalisation in FY 2021-22. It has considered normative Debt : Equity ratio for capitalisation envisaged in FY 2020-21. No increase in normative debt and normative equity is projected in FY 2021-22 due to nil capitalisation expected during the year as shown in the Table below:

Table 4-13: Capitalisation as submitted by BSP-TEED for FY 2021-22 (Rs. Lakh)

Particulars	**FY 2020-21**		**FY 2021-22**
	MYT Order	**Petition**	**Petition**
Capitalisation	**78.34**	**31.89**	**-**
Funding arrangement			
Equity	23.50	9.57	-
Debt	54.84	22.32	-
Total Capitalisation	**78.34**	**31.89**	**-**

Commission's View

For the purpose of this Order, the Commission has considered the capitalisation for FY 2020-21 and FY 2021-22 as submitted by the Petitioner. The funding of capitalisation has been considered normatively based on the debt: equity ratio of 70:30 in accordance with CSERC MYT Regulations, 2015.

4.7 Depreciation

BSP-TEED's submission

The Petitioner submitted that for FY 2021-22, closing GFA of previous year is considered to be opening GFA. As provisional actual capitalisation in FY 2020-21 is Rs. 31.89 Lakh, opening GFA of FY 2021-22 is equal to closing GFA of FY 2020-21. As expected capitalisation during FY 2021-22 is nil, closing GFA of FY 2021-22 is same as opening GFA of FY 2021-22. Depreciation for FY 2021-22 is computed considering same depreciation rate for FY 2019-20, i.e., 7.935%. Accordingly, depreciation for FY 2021-22 is computed as shown in the Table below:

Table 4-14: Depreciation as submitted by BSP-TEED for FY 2021-22 (Rs. Lakh)

Particulars	**FY 2020-21**		**FY 2021-22**
	MYT Order	**Petition**	**Petition**
Opening GFA	2,882.71	1,701.98	1733.87
Addition of GFA	78.34	31.89	-
Closing GFA	2,961.04	1733.87	1733.87
Depreciation	**134.39**	**135.86**	**137.12**

Commission's View

The Commission has considered the opening GFA for FY 2020-21 as per closing GFA approved for FY 2019-20 in this Order. Closing GFA for FY 2020-21, which is opening GFA for FY 2021-22 has been worked out based on opening GFA for FY

2020-21 and capitalisation of Rs. 31.89 Lakh considered for FY 2020-21. Since, there is no GFA addition during FY 2021-22, the closing GFA is same as opening GFA for FY 2021-22. The Commission has considered the rate of depreciation of 2.79% considered in the true-up for FY 2019-20, for computation of depreciation for FY 2021-22.

The depreciation estimated by the Commission for FY 2021-22 is shown in the following Table:

Table 4-15: Depreciation for FY 2021-22 estimated by the Commission (Rs. Lakh)

Particulars	FY 2020-21		FY 2021-22	
	Petition	Approved	Petition	Approved
Opening GFA	1,701.98	1,701.98	1733.87	1733.87
Addition of GFA	31.89	31.89	-	-
Closing GFA	1733.87	1733.87	1733.87	1733.87
Depreciation	**135.86**	**47.86**	**137.12**	**48.31**

4.8 Interest on Loan

BSP-TEED's submission

The Petitioner submitted that the opening normative debt for FY 2020-21 is considered as the closing normative debt submitted in the true-up for FY 2019-20. Addition of normative debt for FY 2020-21 is considered as 70% of capitalisation estimated for FY 2020-21. Repayment during FY 2020-21 is considered equal to depreciation. Similarly, the opening normative debt of FY 2021-22 is considered to be equal to closing normative debt of FY 2020-21. However, closing normative debt of FY 2020-21 is Nil. The rate of interest for FY 2020-21 and FY 2021-22 is considered at same level as approved by the Commission for FY 2020-21, i.e., 11%.

The computation of Interest on loan for FY 2021-22 is as shown in the Table below:

Table 4-16: Interest on Loan for FY 2021-22 as submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2020-21		FY 2021-22
	MYT Order	Petition	Petition
Opening Net Normative loan for the year	689.68	68.05	-
Addition of normative loan during the year	54.84	22.32	-
Repayment of normative loan during the year	134.39	90.37	-
Closing Net Normative loan	610.13	-	-
Rate of Interest (%)	11.00%	11.00%	11.00%
Interest on loan capital	**71.49**	**3.74**	**-**

Commission's View

The Commission observes that the Petitioner has incorrectly considered opening balance of loan for FY 2020-21 same as opening balance of loan for FY 2019-20.

The Commission has considered the opening loan balance for FY 2020-21 same as the closing loan balance for FY 2019-20 as approved in this Order. The addition of normative loan has been considered at 70% of estimated capitalisation during FY 2020-21. The allowable depreciation for the year has been considered as the normative repayment for the year. The rate of interest for FY 2020-21 and FY 2021-22 is considered as 11%. The closing loan balance for FY 2020-21 is considered as opening loan balance for FY 2021-22. There is no addition of loan for FY 2021-22.

The interest on loan capital estimated by the Commission for FY 2021-22 is shown in the following Table:

Table 4-17: Interest on Loan for FY 2021-22 estimated by the Commission (Rs. Lakh)

Particulars	**FY 2020-21**		**FY 2021-22**	
	Petition	**Approved**	**Petition**	**Approved**
Opening Net Normative loan for the year	68.05	96.92	-	71.38
Addition of normative loan during the year	22.32	22.32	-	-
Repayment of normative loan during the year	90.37	47.86	-	48.31
Closing Net Normative loan	-	71.38	-	23.08
Rate of Interest (%)	11.00%	11.00%	11.00%	11.00%
Interest on loan capital	**3.74**	*	-	**5.20**

Note: * - not computed in this Order, as this Order is for FY 2021-22; FY 2020-21 values have been used only as base values for FY 2021-22

4.9 Interest on CSD

BSP-TEED's submission

The Petitioner submitted that it has considered addition in CSD and rate of Interest on CSD for FY 2020-21 and FY 2021-22 at same level as approved for FY 2020-21 by the Commission in MYT Order dated December 27, 2017. Any variation from actual will be adjusted at time of truing-up of FY 2021-22. The computation of interest on CSD for FY 2021-22 is shown in the Table below:

Table 4-18: Interest on CSD for FY 2021-22 submitted by BSP-TEED (Rs. Lakh)

Particulars	FY 2020-21		FY 2021-22
	MYT Order	Petition	Petition
Opening Balance of CSD	434.21	392.14	414.88
Addition of CSD	22.74	22.74	22.74
Closing Balance of CSD	456.95	414.88	437.62
Rate of Interest (%)	7.00%	7.00%	7.00%
Interest on CSD	**31.19**	**28.25**	**29.84**

Commission's View

The Commission noted that the Petitioner has incorrectly considered opening balance of CSD for FY 2020-21 as Rs. 392.14 Lakh, which is not same as closing balance of CSD of FY 2019-20 as submitted in Petition.

The Commission has considered the opening balance of CSD for FY 2020-21 same as closing balance of CSD of FY 2019-20 approved in this Order. The addition of CSD for FY 2020-21 and FY 2021-22 has been considered equal to the average addition of CSD in the last 4 years. The Commission has considered the rate of interest as submitted by petitioner for determining the interest on CSD for FY 2021-22 as shown in the Table below:

Table 4-19: Interest on CSD for FY 2021-22 estimated by the Commission (Rs. Lakh)

Particulars	FY 2020-21		FY 2021-22	
	Petition	Approved	Petition	Approved
Opening Balance of CSD	392.14	368.97	414.88	370.39
Addition of CSD	22.74	1.42	22.74	1.42
Closing Balance of CSD	414.88	370.39	437.62	371.81
Rate of Interest (%)	7.00%	7.00%	7.00%	7.00%
Interest on CSD	**28.25**	*	**29.84**	**25.98**

Note: * - not computed in this Order, as this Order is for FY 2021-22; FY 2020-21 values have been used only as base values for FY 2021-22.

4.10 Interest on Working Capital

BSP-TEED's submission

The Petitioner has projected the interest on working Capital as per Regulation 25.4 of CSERC MYT Regulations, 2015 at the rate of 10.90% (Base Rate of SBI as on September 30, 2019, i.e., 7.40% plus 350 basis points) as shown in the Table below:

Table 4-20: IoWC for FY 2021-22 as submitted by BSP-TEED (Rs. Lakh)

Particulars	Petition
O&M Expenses for one Month	204.74
Maintenance Spares @ 40% of R&M Expenses	61.54
Receivables for one month	644.61
Less: Consumer security deposit	437.62
Working Capital Requirement	473.26
Rate of Interest (%)	10.90%
Interest on Working Capital	**51.59**

Commission's View

The Commission has computed the normative IoWC in accordance with the CSERC MYT Regulations, 2015. For computing the working capital requirement, the Commission has considered the normative O&M expenses approved in this Order. The receivables have been considered equivalent to one month's estimated revenue for FY 2021-22. The CSD has been considered as Rs. 371.81 Lakh for FY 2021-22. The rate of interest has been considered as 10.90% in accordance with CSERC MYT Regulations, 2015. The normative IoWC estimated by the Commission for FY 2021-22 is shown in the following Table:

Table 4-21: IoWC estimated by the Commission for FY 2021-22 (Rs. Lakh)

Particulars	Petition	Approved
O&M Expenses for one Month	204.74	241.64
Maintenance Spares @ 40% of R&M Expenses	61.54	72.60
Receivables for one month	644.61	641.43
Less: Consumer security deposit	437.62	371.81
Working Capital Requirement	473.26	583.86
Rate of Interest (%)	10.90%	10.90%
Interest on Working Capital	**51.59**	**63.64**

4.11 Provision for Bad and Doubtful Debt

BSP-TEED's submission

The Petitioner submitted that it did not write off any debt towards bad and doubtful debts till FY 2019-20 also. Therefore, as approved in MYT Order, the Petitioner has considered provision for bad and doubtful debts to be Nil for FY 2021-22. However, Petitioner requested the Commission to consider bad debts written off, if any, during FY 2021-22 at the time of True-up.

Commission's View

As submitted by BSP-TEED, the Commission has not considered any provision for bad and doubtful debts for FY 2021-22.

4.12 Return of Equity

BSP-TEED's submission

The Petitioner submitted that the opening equity for FY 2020-21 has been considered as the closing equity submitted for true-up for FY 2019-20. The addition of equity for FY 2020-21 is considered as 30% of capitalisation estimated during the year. The closing equity for FY 2020-21 is considered as the opening equity for FY 2021-22. Since, there is no capitalisation envisaged for FY 2021-22, no addition in equity is considered during the year.

BSP-TEED is a Division of SAIL-BSP and has not paid any Income Tax in past years. Hence, the rate of ROE has not been grossed up with the MAT rate, and the ROE rate of 16% has been considered for the purpose of projecting ROE for FY 2021-22.

Table 4-22: ROE for FY 2021-22 submitted by BSP-TEED (Rs. Lakh)

Particulars	**FY 2020-21**		**FY 2021-22**
	MYT Order	**Petition**	**Petition**
Opening Equity	567.58	182.54	192.10
Normative Addition during the year	23.50	9.57	-
Closing Equity	591.08	192.10	192.10
Return of Equity at 16%	**92.69**	**29.97**	**30.74**

Commission's View

The Commission noted that the Petitioner has incorrectly considered opening equity for FY 2020-21 same as opening balance of loan for FY 2019-20.

The Commission has considered the opening equity for FY 2020-21 same as the closing equity for FY 2019-20 as approved in this Order. The addition of equity has been considered at 30% of actual capitalisation during FY 2020-21. Since, there is no capitalisation for FY 2021-22, no addition of equity is considered. The Commission has considered rate of return as 16% on average equity for the year. The RoE approved for FY 2021-22 is shown in the following Table:

Table 4-23: Return on Equity for FY 2021-22 estimated by the Commission (Rs. Lakh)

Particulars	FY 2020-21		FY 2021-22	
	Petition	Approved	Petition	Approved
Opening Equity	182.54	213.36	192.10	222.93
Normative Addition during the year	9.57	9.57	-	-
Closing Equity	192.10	222.93	192.10	222.93
Rate of Return of Equity	16.00%	16.00%	16.00%	16.00%
Return of Equity	**29.97**	*****	**30.74**	**35.67**

Note: * - not computed in this Order, as this Order is for FY 2021-22; FY 2020-21 values have been used only as base values for FY 2021-22.

4.13 Non-Tariff Income

BSP-TEED's submission

The Petitioner submitted that it has considered Non-Tariff Income for FY 2021-22 at the same level as approved by the Commission for FY 2020-21 in MYT Order, i.e., Rs. 111.25 Lakh.

Commission's View

The Commission has considered Non-Tariff Income for FY 2021-22 at the same level as approved for FY 2019-20 in this Order as shown below:

Table 4-24: Non-Tariff Income estimated by the Commission for FY 2021-22 (Rs. Lakh)

Particulars	Petition	Approved
Non-Tariff Income	111.25	100.32

4.14 Aggregate Revenue Requirement for FY 2021-22

Based on the analysis in the previous paragraphs, the Commission has estimated the ARR for FY 2021-22 as summarised in the Table below:

Table 4-25: ARR approved by the Commission for FY 2021-22 (Rs. Lakh)

Sr. No.	Particulars	Petition	Approved
1	Power Purchase Cost	7,655.60	7,530.86
2	O&M Expenses	2,456.92	2,899.66
3	Depreciation	137.12	48.31
4	Interest on Loan	0.00	5.20
5	Interest on Security Deposit	29.84	25.98

6	Interest on Working Capital Requirement	51.59	63.64
7	Return on Equity	30.74	35.67
8	Provision for Bad & Doubtful Debt	0.00	0.00
9	Less: Non-Tariff Income	111.25	100.32
10	**Net ARR**	**10,250.55**	**10,508.99**

4.15 Revenue from Sale of Power

BSP-TEED's submission

The Petitioner has estimated the revenue from sale of power of Rs. 7735.26 Lakh for FY 2021-22 based on the existing tariff determined by the Commission in the Tariff Order dated December 27, 2017.

Commission's View

The Commission has estimated the revenue from sale of power at existing tariff as Rs. 7697.21 Lakh, on the basis of the prevailing tariff and applicable terms and conditions as specified in the Tariff Schedule for each consumer category, and the consumer category-wise sales projected by the Commission, as discussed earlier.

The estimated revenue from sale of power for FY 2021-22 is shown in the Table below:

Table 4-26: Revenue from sale of power estimated by the Commission for FY 2021-22 (Rs. Lakh)

Particulars	Petition	Approved
Revenue from sale of power	7735.26	7697.21

4.16 Revenue Gap/(Surplus) for FY 2021-22

BSP-TEED's submission

The Petitioner has estimated the standalone Revenue Gap for FY 2021-22 at existing tariff as shown in the Table below:

Table 4-27: Revenue Gap for FY 2021-22 submitted by BSP-TEED (Rs. Lakh)

Particulars	Petition
Aggregate Revenue Requirement	**10,250.55**
Revenue from sale of power at existing tariff	7735.26
Standalone Revenue Gap/(Surplus)	**2,515.29**

Commission's View

The Revenue Gap/(Surplus) computed by the Commission for FY 2021-22 is given in the Table below:

Table 4-28: Approved Revenue Gap/(Surplus) for FY 2021-22 (Rs. Lakh)

Particulars	**Petition**	**Approved**
Annual Revenue Requirement	10,250.55	10,508.99
Revenue from sale of power at existing tariff	7735.26	7697.21
Standalone Revenue Gap/(Surplus)	**2,515.29**	**2,811.77**

The Commission approves standalone Revenue Gap for FY 2021-22 for BSP-TEED as shown in the Table above.

5 ARR FOR MYT CONTROL PERIOD FROM FY 2022-23 TO FY 2024-25

5.1 Background

As mentioned earlier, BSP-TEED was required to file a Petition for approval of true-up of FY 2020-21, ARR for the Control Period from FY 2022-23 to FY 2024-25 and determination of retail tariff for FY 2022-23 as per CSERC MYT Regulations, 2021. However, in response to the Commission's directive to file a ARR Petition, BSP-TEED has not submitted its proposal for the Control Period from FY 2022-23 to FY 2024-25. Therefore, the Commission has initiated a Suo-Motu Petition No. 12 of 2022 for determination of ARR for the Control Period from FY 2022-23 to FY 2024-25 and retail tariff for FY 2022-23.

Based on the data submitted by the Petitioner in Petition No. 42/ 2020 and Petition No. 18/2021, the Commission has projected ARR for the MYT Control Period from FY 2022-23 to FY 2024-25 under various heads, viz., Power Purchase expenses, O&M expenses, depreciation, interest on loans, interest on working capital, etc., in accordance with the CSERC MYT Regulations, 2021 as discussed in the following sections.

5.2 Sales Projections

Commission’s Analysis

As discussed in earlier Chapter of this Order, the Commission has projected energy sales for FY 2021-22 by applying CAGR of actual sales for the period from FY 2013-14 to FY 2019-20 as shown in Table 4-3 of this Order on the actual energy sales for FY 2019-20. For projection of sales for the Control Period from FY 2022-23 to FY 2024-25, the Commission has considered the same category-wise CAGR as per Table 4-3 of this Order. On the basis of these CAGR, the Commission has estimated the energy sales for the Control Period after taking into account the estimated sales for FY 2021-22 as base year sales. The category-wise energy sales estimated by the Commission for the Control Period from FY 2022-23 to FY 2024-25 are shown in the following Table:

Table 5-1: Energy Sales for FY 2022-23 to FY 2024-25 as estimated by Commission (MU)

Consumer Category	FY 2022-23	FY 2023-24	FY 2024-25
LV-1: Domestic	118.32	122.70	127.24
LV-2: Non-Domestic	29.02	29.70	30.40
LV-3: Industry	0.49	0.50	0.50
LV-4: Public Utilities	8.16	8.17	8.17
LV-5: Temporary Supply	0.04	0.04	0.04
Total LV	**156.04**	**161.11**	**166.36**
HV-1: Residential	0.13	0.13	0.13
HV-2: Non-Residential and General Purpose	12.67	13.18	13.70
HV-3: Public Utilities	11.60	11.60	11.60
Total HV	**24.41**	**24.91**	**25.44**
Total Sales	**180.45**	**186.02**	**191.80**

5.3 Distribution Loss and Energy Balance

Commission’s Analysis

The Commission has approved Distribution Loss target of 12.25% for FY 2021-22 in this Order. At the lower levels of Distribution Loss, the annual reduction in Distribution Losses would be lower. Hence, the Commission has considered annual Loss reduction trajectory of 0.25% for the Control Period. Accordingly, the Distribution Loss approved by the Commission for the Control Period from FY 2022-23 to FY 2024-25 are shown in the following Table:

Table 5-2: Distribution Loss for FY 2022-23 to FY 2024-25 approved by the Commission (MU)

Consumer Category	FY 2022-23	FY 2023-24	FY 2024-25
Distribution Loss	12.00%	11.75%	11.50%

After taking into account the estimated Energy Sales and approved Distribution Loss trajectory, the Energy Balance estimated by the Commission for the Control Period from FY 2022-23 to FY 2024-25 is given in the Table below:

Table 5-3: Energy Balance for FY 2022-23 to FY 2024-25 as estimated by Commission (MU)

Consumer Category	FY 2022-23	FY 2023-24	FY 2024-25
LV Sales (MU)	156.04	161.11	166.36
HV Sales (MU)	24.41	24.91	25.44
Total Energy Sales (MU)	**180.45**	**186.02**	**191.80**
Overall Distribution Losses (%)	12.00%	11.75%	11.50%
Overall Distribution Losses (MU)	24.60	24.76	24.91
Total Energy Requirement (MU)	**205.04**	**210.78**	**216.71**

5.4 Power Purchase Cost

Commission's Analysis

The Commission has considered the power purchase from NSPCL PP1, PP2 and PP3 as per the existing PSA for meeting the estimated energy requirement for the Control Period. For estimating the cost of power purchase, the Commission has considered the average power purchase rate considered in this Order for FY 2021-22, i.e., Rs. 3.71 per kWh. No escalation in power purchase rate has been considered for FY 2022-23 to FY 2024-25.

The Commission in its CSERC (Renewable Purchase Obligation and REC Framework Implementation) Regulations, 2021 notified on October 29, 2021 has specified the RPO trajectory till FY 2023-24. The Commission has considered the same RPO target for FY 2024-25 also, as shown in the Table below:

Table 5-4: RPO Target for FY 2022-23 to FY 2024-25 (%)

Sl. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Solar	11.50%	12.50%	12.50%
2	Non-Solar (HPO)	0.35%	0.66%	0.66%
3	Non-Solar (Others)	10.50%	10.50%	10.50%

As regards the Non-Solar RPO, the power produced from the co-generation units of NSPCL is used for internal purposes and this system is in existence for a long-time. The fuel used in the generation is a by-product, i.e., waste heat recovery and currently no cost is being determined for the same. The benefits of the zero-cost power produced from this source is passed on the consumers and hence, the Commission has not considered any cost implication for the quantum of power produced from NSPCL PP1 and NSPCL PP2, as submitted by BSP-TEED. The Commission has projected the power from these sources for meeting the Non-Solar RPO.

As regards the Solar RPO, since there is no tied up Solar generation capacity, the Commission has considered the Solar RECs at the floor price of Re. 1.00/kWh for the quantum required to meet the Solar RPO.

The Commission directs BSP-TEED to fulfil the Solar RPO requirement either by actual purchase of Solar power or purchase of equivalent RECs.

In view of the above, the power purchase quantum and cost estimated by the Commission for the Control Period from FY 2022-23 to FY 2024-25 is shown in the following Table:

Table 5-5: Power Purchase Cost estimated by the Commission for FY 2022-23 to FY 2024-25 (Rs. Lakh)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Quantum of Power Purchase (MU)			
NSPCL -PP3	205.04	210.78	216.71
Power Purchase Cost (Rs. Lakh)			
NSPCL -PP3	7607.13	7819.94	8039.85
Solar REC Purchase	235.80	263.47	270.88
Total Power Purchase Cost (Rs. Lakh)	**7842.93**	**8083.41**	**8310.74**
Avg. Power Purchase Rate (Rs./kWh)			
NSPCL -PP3	3.71	3.71	3.71
Total	**3.83**	**3.84**	**3.84**

5.5 O&M Expenses

Commission's Analysis

Regulation 83.4 of the CSERC MYT Regulations, 2021 specifies as under regarding O&M Expenses:

*"**83.4. Operation And Maintenance (O&M) Expenses***

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.

(c) The HR expenses includes employee cost, impact of pay revision arrears, all expenses towards manpower deployed on outsourcing basis, pension fund contribution, and any other expense of non-recurring nature related to HR. The base year i.e. FY 2021-22, shall be derived on the basis of the normalized average of the actual HR expenses excluding pension fund

contribution, impact of pay revision arrears and any other expense of non-recurring nature, available in the accounts for the previous five (5) years immediately preceding the base year FY 2021-22, subject to prudence check by the Commission.

(d) The normalization of HR expenses shall be done by applying last five year average increase in Consumer Price Index Industrial Worker (CPI (IW)) 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. The projected base year value shall be escalated by the above inflation rate to estimate the HR expenses (excluding impact of pension fund contribution and pay revision and any other expense of non-recurring nature, if any) for each year of the control period.

(e) At the time of true up, the HR expenses shall be considered at actual and shall not be subjected to gain/loss mechanism.

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

(f) CPI (IW) (all India) shall be as per Labour Bureau, Government of India {Base Year: 2001:100}.

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 WPI 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 gf 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 lndia {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.”

The O&M expenses for the Control Period from FY 2022-23 to FY 2024-25 have been estimated in accordance with the methodology specified in the CSERC MYT Regulations, 2021.

The summary of the yearly escalation in CPI and WPI over the last five years up to FY 2020-21 and the average escalation rate considered for projecting the O&M expenses is shown in the following Table:

Table 5-6: Computation of Escalation Rate for Projections (%)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	Average of 5 years increase
CPI-IW (%)	4.12%	3.08%	5.45%	7.53%	5.02%	5.04%
WPI-AC (%)	1.73%	2.92%	4.27%	1.68%	1.27%	2.38%

***Note**: CPI-IW: Consumer Price Index - Industrial Workers*
WPI-AC: Wholesale Price Index - All Commodities

5.5.1 Employee Expenses

In accordance with the CSERC MYT Regulations, 2021, the Commission has considered the employee expenses on the basis of the normalized average of the actual prudent Human Resource (HR) expenses excluding pension fund contribution available in the accounts for the previous five (5) years immediately preceding the base year FY 2021-22. Since the True up of FY 2020-21 is pending, the actual expenses of FY 2019-20 are considered for FY 2020-21.

The normalization has been done by applying last five-year average increase in CPI on year-to-year basis. The average of normalized net present value for FY 2016-17 to FY 2021, has then been used to project base-year value for FY 2021-22. The projected base-year value so arrived, has been escalated by the above inflation rate to estimate the HR expense (excluding impact of pension fund contribution and pay revision and any other expense of non-recurring nature) for each year of the Control Period.

Also, there is no sharing of gains and losses in employee expenses, and any increase in employee expenses on this account can be claimed at the time of true-up for the respective year.

5.5.2 A&G Expenses

In accordance with the CSERC MYT Regulations, 2021, the Commission has considered the A&G expenses (excluding expenses towards outsourcing manpower) on the basis of the normalized average of the actual prudent A&G expenses (excluding expenses towards outsourcing manpower) available in the accounts for the previous five (5) years immediately preceding the base-year FY 2021-22. Since the True up of FY 2020-21 is pending, the actual expenses of FY 2019-20 are considered for FY 2020-21.

The normalisation of A&G expenses has been done by applying last five-year average increase/decrease in Inflation on the basis of 40% weightage of WPI 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, has then been used to project base-year value for FY 2021-22. The projected base-year value has been escalated by the above inflation rate to estimate the A&G expenses for each year of the Control Period.

5.5.3 R&M Expenses

In accordance with the CSERC MYT Regulations, 2021, the Commission has considered the R&M expenses (excluding expenses towards outsourcing manpower) has been derived on the basis of the normalized average of the actual prudent R&M expenses (excluding expenses towards outsourcing manpower) available in the accounts for the previous five (5) years immediately preceding the base-year FY 2021-22. Since the True up of FY 2020-21 is pending, the actual expenses of FY 2019-20 are considered for FY 2020-21.

The normalization of R&M expenses has been done by applying last five-year average increase/decrease in WPI of all commodities on year-to-year basis. The average of normalized net present value for FY 2016-17 to FY 2020-21, has then been used to project base-year value for FY 2021-22. The projected base-year value has been escalated by the above inflation rate to estimate the R&M expenses for each year of the Control Period.

The normative Employee expenses, A&G expenses and R&M expenses as approved for the Control Period from FY 2022-23 to FY 2024-25 are shown in the Tables below:

Table 5-7: Approved Employee Expenses for the Control Period (Rs. Lakh)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Employee Expenses	1,165.71	1,209.53	1,196.65	1,249.86	1,249.86				
Normalised FY 2016-17 value to FY 2020-21 NPV	1,165.71	1,201.62	1,267.11	1,362.52	1,430.96				
Normalised FY 2017-18 value to FY 2020-21 NPV		1,209.53	1,275.45	1,371.49	1,440.38				
Normalised FY 2018-19 value to FY 2020-21 NPV			1,196.65	1,286.76	1,351.39				
Normalised FY 2019-20 value to FY 2020-21 NPV				1,249.86	1,312.64				
Normalised FY 2020-21 value					1,249.86				
Net Employee Expenses					**1,357.04**	**1425.45**	**1497.30**	**1572.77**	**1652.05**

Table 5-8: Approved A&G expenses for the Control Period (Rs. Lakh)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
A&G Expenses	97.30	81.00	57.30	93.60	93.60				
Normalised FY 2016-17 value to FY 2020-21 NPV	97.30	100.23	105.23	110.69	114.59				
Normalised FY 2017-18 value to FY 2020-21 NPV		81.00	85.03	89.45	92.60				
Normalised FY 2018-19 value to FY 2020-21 NPV			57.30	60.27	62.40				
Normalised FY 2019-20 value to FY 2020-21 NPV				93.60	96.90				
Normalised FY 2020-21 value					93.60				
Net A&G Expenses					**92.02**	**95.67**	**99.48**	**103.43**	**107.54**

Table 5-9: Approved R&M expenses for the Control Period (Rs. Lakh)

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
R&M Expenses	217.56	123.41	295.64	232.44	232.44				
Normalised FY 2016-17 value to FY 2020-21 NPV	217.56	220.81	227.38	234.11	239.75				
Normalised FY 2017-18 value to FY 2020-21 NPV		123.41	127.08	130.84	133.99				
Normalised FY 2018-19 value to FY 2020-21 NPV			295.64	304.39	311.72				
Normalised FY 2019-20 value to FY 2020-21 NPV				232.44	238.04				
Normalised FY 2020-21 value					232.44				
Net R&M Expenses					**231.19**	**236.68**	**242.31**	**248.06**	**253.96**

The summary of O&M expenses approved for the Control Period is shown in the Table below:

Table 5-10 Approved O&M expenses for the Control Period (Rs. Lakh)

Particulars	**FY 2022-23**	**FY 2023-24**	**FY 2024-25**
Employee Expenses	1497.30	1572.77	1652.05
A&G Expenses	99.48	103.43	107.54
R&M Expenses	242.31	248.06	253.96
Total O&M Expenses	**1839.08**	**1924.27**	**2013.55**

5.6 Capitalisation

Commission's Analysis

The Commission has not approved any capitalisation for FY 2021-22, since the Petitioner has not planned any capital expenditure for that year. BSP-TEED is required to submit the Capital Investment Plan and MYT Petition for FY 2022-23 to FY 2024-25 in accordance with CSERC MYT Regulations, 2021. However, BSP-TEED has not submitted Capital Investment Plan and MYT Petition for the Control Period. Hence, in absence of the same, at this stage, for the purpose of present MYT Order, the Commission has provisionally not considered any capitalisation during FY 2022-23 to FY 2024-25. Capitalisation for FY 2022-23 to FY 2024-25 will be considered based on actual capitalisation at the time of True up of respective year provided that BSP-TEED submits the details of schemes including physical status of implementation, scope of work, cost benefit analysis, funding arrangement, etc.

5.7 Depreciation

Commission's Analysis

Regulation 25 of the CSERC MYT Regulations, 2021 specifies as under:

*"**25. DEPRECIATION***

25.1. The value base for the purpose of depreciation shall be the capital cost of the asset as admitted by the Commission:

25.2. Provided that the capital cost shall not include funds from grant or consumer contribution or deposit works received for funding of fixed asset as specified in Regulation 22.

25.3. The salvage value of the asset except for IT equipments and software used for SLDC business shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.

25.4. Provided that, the salvage value for IT equipments and Software shall be considered as NIL and 100% value of the assets shall be considered depreciable.

25.5. Land other than the land held under lease and the land for reservoir in case of hydro generating station and the land for ash-bund for thermal power stations shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset. Subject to specific provisions, Land for integrated mine shall also be considered for depreciation.

25.6. Depreciation shall be calculated annually based on Straight Line Method and at rates as specified in Appendix-I to this regulation for the assets of the generating station, transmission system, distribution system and SLDC and Appendix –I (A) for integrated coal mine:

Provided that, in case of the existing projects, the balance depreciable value as on 01.04.2022 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.03.2022 from the gross depreciable value of the assets.

Provided that in those cases where the capital investment plan has been approved by the Commission and the depreciation rates as provided in this Regulation are insufficient for the repayment of loan, the rate of depreciation shall be decided by the Commission at the time of issuance of tariff order, subject to prudence check.

Provided that in the case where additional capital investment is approved by the commission for a plant at the end of its useful life or after its useful life is already over, the recoverable depreciation in respect of additional capital investment, shall be spread over the balance projected physical life as submitted by the generation company or the licensee in the capital investment plan after prudence check by the Commission.

Provided that until a Government company or any authority or corporation is notified for operating the SLDC, the depreciation shall be calculated as applicable for the STU under these Regulations.

Provided further the balance depreciable value as on the date of transfer shall be worked out by deducting the cumulative depreciation from the gross depreciable *value of the assets appearing in the books of accounts of the SLDC for the SLDC as on the date of transfer.”*

Depreciation for the Control Period from FY 2022-23 to FY 2024-25 has been calculated in accordance with the above mentioned Regulations, on the average GFA during the year. The Commission has considered the opening GFA for FY 2022-23 as per closing GFA approved for FY 2021-22 in this Order. Since, there is no GFA addition during the Control Period, the closing GFA is same as opening GFA for FY 2022-23 to FY 2024-25. The Commission has considered the rate of depreciation of 2.79% as considered for computation of depreciation for FY 2021-22.

The depreciation estimated by the Commission for the Control Period from FY 2022-23 to FY 2024-25 is shown in the following Table:

Table 5-11: Depreciation for FY 2022-23 to FY 2024-25 as estimated by Commission (Rs. Lakh)

Particulars	**FY 2022-23**	**FY 2023-24**	**FY 2024-25**
Opening GFA	1733.87	1733.87	1733.87
Addition of GFA	-	-	-
Closing GFA	1733.87	1733.87	1733.87
Depreciation	**48.31**	**48.31**	**48.31**

5.8 Interest on Loan

Commission’s Analysis

Regulation 24 of the CSERC MYT Regulations, 2021 specifies as under:

*“**24. INTEREST AND FINANCE CHARGES ON LOAN CAPITAL***

24.1 The debt arrived at in the manner indicated in Regulation 17 shall be considered as gross normative loan for calculation of interest on loan.

24.2. The normative loan outstanding as on 01.04.2022 shall be worked out by deducting, the cumulative repayment as admitted by the Commission up to 31.03.2022, from the gross normative loan.

24.3. The repayment of loan for the year of the tariff period shall be deemed to be equal to the depreciation allowed for that year.

24.4. Notwithstanding any moratorium period availed by the generating company or the licensee, as the case may be the repayment of loan shall be considered from the *first year of commercial operation of the project and shall be equal to the annual depreciation allowed.*

24.5. The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the project:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the licensee, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the licensee as a whole shall be considered:

Provided further, in case of new generating station or the licensee commencing its operation after the date of effectiveness of this Regulation, and which don't have actual loan portfolio, the rate of interest shall be considered on normative basis and shall be equal to the Marginal Cost of Fund based Lending Rate (MCLR - one year tenor) of State Bank of India plus 150 basis points as applicable on the date of COD.

24.6. The interest on loan shall be calculated on the average of opening and closing loan of the year. For the computation of interest amount, the interest rate shall be the weighted average rate of interest for the same year.

24.7. The interest amount as per regulation 24.6 shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by consumer contribution, grants or deposit works carried out by generating company, transmission licensee, SLDC or distribution licensee, as the case may be".

For computing Interest on Loan, the closing normative loan as approved for FY 2021-22 has been considered as the opening normative loan for FY 2022-23. For each year of the Control Period, the closing normative loan for previous year has been considered as the opening normative loan for that year. Further, the Commission has not approved any capitalisation for the Control Period. Hence, there is no addition of loan during the Control Period. The depreciation has been considered as normative repayment of loan, to the extent of outstanding loan. The rate of interest has been considered as 11.00% same as considered for FY 2021-22.

It is noted that the closing normative loan for FY 2022-23 works out to be nil; therefore, there is no interest on loan approved for FY 2023-24 and FY 2024-25.

The interest on loan approved for the Control Period is shown in the Table below:

Table 5-12: Interest on Loan for FY 2022-23 to FY 2024-25 as estimated by Commission (Rs. Lakh)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Opening Net Normative loan for the year	23.08	-	-
Addition of normative loan during the year	-	-	-
Repayment Of normative loan during the year	23.08	-	-
Closing Net Normative loan	-	-	-
Rate of Interest (%)	11.00%	11.00%	11.00%
Interest on loan capital	**1.27**	**-**	**-**

5.9 Interest on CSD

Commission's Analysis

As per the provisions of Regulation 6.13 of the Chhattisgarh Supply Code, 2011, interest on security deposits is payable by BSP-TEED to its consumers. The relevant clause is reproduced below:

"The licensee shall pay interest as per directive / guidelines of Reserve Bank of India (RBI) on the security deposits. It shall be the responsibility of the licensee to ascertain the such rate from RBI and to inform the consumers through the billing mechanism."

Further, Regulation 24.10 of the CSERC MYT Regulations, 2021 specifies as under:

"24.10. In case of licensee, the interest paid on security deposit to the consumers shall not be allowed as a part of Annual Revenue Requirement. The licensee shall bear the interest liability on security deposit."

In accordance with the above Regulation, the Commission has not allowed the Interest on Security Deposit as part of the ARR for the Control Period from FY 2022-23 to FY 2024-25. However, BSP-TEED shall pay interest on the Consumers' Security Deposit in accordance with Regulation 6.13 of the Chhattisgarh Supply Code, 2011.

5.10 Interest on Working Capital

Commission's Analysis

Regulation 26.1 (e) of the CSERC MYT Regulations, 2021 specifies as under:

"26.1. The working capital shall include:

…

(e) For Retail Supply of Electricity:

i. O&M expenses for 15 days; plus

ii. Maintenance spares @ 20% of maintenance and general expenses specified in Regulation 92.6.2; plus

iii. Receivables equivalent to one (1) month of the revenue from sale of electricity at the prevailing tariffs within state;

…

26.4. "Interest on working capital shall be allowed at a rate equal to the Marginal Cost of Fund based Lending Rate (MCLR – one year tenor) of State Bank of India plus 200 basis point prevailing on 30th September of current financial year. During true up, the interest on working capital shall be computed at an average actual sanctioned rate of interest during the year."

The Interest on Working Capital has been calculated in accordance with the above-said Regulations. The working capital requirement has been computed by considering O&M Expenses for 15 days, Maintenance spares @ 20% of approved Maintenance and General expenses and receivables equivalent to one month of the revenue from sale of power at approved tariff for FY 2022-23 and one month equivalent of the ARR approved for FY 2023-24 and FY 2024-25.

The interest rate of 9.00% has been considered, which is the one-year MCLR of SBI as on September 30, 2021, plus 200 basis points, for computing the Interest on Working Capital for the entire Control Period. The Interest on Working Capital approved for the Control Period is shown in the Table below:

Table 5-13: IoWC for FY 2022-23 to FY 2024-25 as estimated by Commission (Rs. Lakh)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Operation and Maintenance Expenses for 15 days	75.58	79.08	82.75
Maintenance spares @ 20% of	68.36	70.30	72.30

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
M&G Expenses			
Receivables equal to 1 month of expected revenue from charges	697.01	840.03	866.66
Total Working Capital	**840.95**	**989.41**	**1021.71**
Rate of Interest (%)	9.00%	9.00%	9.00%
Interest on Working Capital	**75.69**	**89.05**	**91.95**

5.11 Provisions for Bad and Doubtful Debt

Commission's Analysis

Regulation 92.8 of the CSERC MYT Regulations, 2021 specifies as under:

*"**92.8. Bad debt written off***

92.8.1. The Commission may allow bad debts written off, as approved by the Competent Authority, as a pass through in the Aggregate Revenue Requirement, based on the trend of write off of bad debts in the previous years, subject to prudent check:"

It is observed that no bad debts have been written off for FY 2016-17 to FY 2019-20. Hence, the Commission does not find any rationale for allowing Provision for bad and doubtful debts for the Control Period. Therefore, the Commission has not considered any provision for bad and doubtful debts for the Control Period from FY 2022-23 to FY 2024-25. If there are any actual bad debts written off for FY 2022-23 to FY 2024-25, the same shall be considered at time of true-up for respective year, subject to prudence check.

5.12 Return on Equity

Commission's Analysis

Regulation 23 of the CSERC MYT Regulations, 2021 specifies as under:

*"**23 RETURN ON EQUITY***

23.1. Base rate for Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed at the rate of 14.0% for Generation and Transmission and SLDC.

23.2. Distribution: Base rate for Return on equity shall be computed in rupee terms on the equity base determined in accordance with Regulation 17. Return on equity shall be computed at the rate of 16.0%.

23.3. The ROE shall be grossed up at the time of tariff by MAT rate for the year in which tariff is being determined, subject to the condition that MAT / Corporate tax has been paid for last three consecutive years for regulated business filed petition under these Regulations. In such case, Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of return on equity = Base rate / (1-MAT Rate)

At the time of True up, the income tax shall be pass through on actual basis, subject to ceiling as following:

= Average Permissible Equity X Base Rate of Return X ((t/ (1-t))

Where "t" is the actual tax rate for the year. The tax rate shall be calculated without considering the delay payment surcharge received or receivable during the said financial year by generating company or licensee as the case may be."

The Return on Equity for the Control Period has been computed in accordance with the above Regulations. The closing normative equity as approved for FY 2021-22 in this Order has been considered as the opening normative equity for FY 2022-23. For each year of the Control Period, the closing normative equity for previous year has been considered as the opening normative loan for that year. Further, the Commission has not approved any capitalisation for the Control Period. Hence, there is no addition of equity during the Control Period.

The rate of RoE has not been grossed up with the MAT rate as BSP-TTED has not paid any Income Tax, and the RoE rate of 16% has been considered for the purpose of approving RoE for the Control Period.

The Return on Equity approved for the Control Period is shown in the Table below:

Table 5-14: Return on Equity for FY 2022-23 to FY 2024-25 as estimated by Commission (Rs. Lakh)

Particulars	**FY 2022-23**	**FY 2023-24**	**FY 2024-25**
Opening Equity	222.93	222.93	222.93
Normative Addition during the year	-	-	-
Closing Equity	222.93	222.93	222.93
Rate of Return of Equity	16.00%	16.00%	16.00%
Return of Equity	**35.67**	**35.67**	**35.67**

5.13 Non-Tariff Income

Commission's Analysis

The Commission has considered Non-Tariff Income for the Control Period at the same level as approved for FY 2021-22 in this Order, as shown below:

Table 5-15: Non-Tariff Income for FY 2022-23 to FY 2024-25 as estimated by Commission (Rs. Lakh)

Particulars	FY 2022-23	FY 2023-24	FY 2024-25
Non-Tariff Income	100.32	100.32	100.32

5.14 Aggregate Revenue Requirement for FY 2022-23 to FY 2024-25

Commission's Analysis

The summary of the ARR approved by the Commission for BSP-TEED for the Control Period from FY 2022-23 to FY 2024-25 is shown in the Table below:

Table 5-16: ARR approved by the Commission for FY 2022-23 to FY 2024-25 (Rs. Lakh)

Sr. No.	Particulars	FY 2022-23	FY 2023-24	FY 2024-25
1	Power Purchase Cost	7,842.93	8,083.41	8,310.74
2	O&M Expenses	1,839.08	1,924.27	2,013.55
3	Depreciation	48.31	48.31	48.31
4	Interest on Loan	1.27	0.00	0.00
5	Interest on Security Deposit	0.00	0.00	0.00
6	Interest on Working Capital Requirement	75.69	89.05	91.95
7	Return on Equity	35.67	35.67	35.67
8	Provision for Bad & Doubtful Debt	0.00	0.00	0.00
9	Less: Non-Tariff Income	100.32	100.32	100.32
10	**Net ARR**	**9,742.62**	**10,080.38**	**10,399.90**

6 DETERMINATION OF TARIFF FOR FY 2022-23

In this Section, the Commission has set out its tariff philosophy, tariff design, and approved the category-wise retail supply tariff for BSP-TEED for FY 2022-23.

6.1 Recovery of past Revenue Gaps

BSP-TEED's submission

The Petitioner has not proposed to recover the Revenue Gap pertaining to FY 2016-17 to FY 2019-20 from its consumers, as the same is proposed to be funded by Bhilai Steel Plant.

Commission's View

After carrying out the final True-up, the Commission has approved the Revenue Gap of Rs. 741.48 Lakh for FY 2016-17, Rs. 914.45 Lakh for FY 2017-18, Rs. 986.94 Lakh for FY 2018-19 and Rs. 2,406.90 Lakh for FY 2019-20. The Commission accepts the proposal of BSP-TEED and has not considered such Revenue Gap for recovery through retail supply tariff for the subsequent years. The Commission notes that these Revenue Gaps are to be funded by Bhilai Steel Plant and shall not be claimed by BSP-TEED in future years.

6.2 Proposed Tariff for FY 2021-22

BSP-TEED's submission

The Petitioner has worked out standalone Revenue Gap of Rs. 2,515.29 Lakh for FY 2021-22. The Petitioner submitted that though there is Revenue Gap for FY 2021-22, it is proposed to recover the Revenue Gap through tariff of FY 2021-22 partially only, so that there is no tariff shock to its consumers. Also, the Petitioner has not proposed to recover the standalone Revenue Gaps for FY 2016-17, FY 2017-18, FY 2018-19 and FY 2019-20 from Tariff, which will continue to be met by Bhilai Steel Plant.

The Petitioner submitted that during the tariff determination for FY 2017-18, the Commission had projected the under-recovery of Tariff, which was to be considered during the True-up of FY 2017-18. Relevant extract of the Commission's Order in this regard is reproduced as under:

> *"The Commission notes that BSP-TEED has proposed average tariff increase of 5% and proposed partial recovery of approved ARR for FY 2017-18. This partial*

recovery of ARR will lead to Revenue Gap, which will need to be considered in subsequent years. Further, the approved tariff would be applicable only for three (3) months of FY 2017-18. ***If the entire ACoS -ABR gap is considered to be recovered in three (3) months of FY 2017-18, there would be a tariff shock to the consumers. Hence, the Commission is of the view that under-recovery of ARR for FY 2017-18 shall be considered after final True-up for FY 2017-18****."* ***(Emphasis added)***

The Petitioner submitted that since it has not proposed to pass on the Revenue Gap for FY 2017-18 on to the consumers through tariff, the under-recovery ARR at existing tariff will continue for upcoming years. Further, Employee Wage revision, which is due since FY 2017-18, will also lead to increase in ARR in upcoming years.

The Petitioner submitted that there has been no tariff revision in its Licensed Distribution area since FY 2017-18. As a result, impact of increased costs has also contributed towards Revenue Gap. However, the amortization of the standalone Revenue Gap for FY 2021-22 would not be feasible in the given circumstances as the increase would be a tariff shock to the consumers. Therefore, the Petitioner has proposed an overall tariff increase of 5% uniformly across all tariff categories for FY 2021-22. Further, the Petitioner has proposed to continue with the existing tariff categories and slabs.

The Petitioner submitted that as per existing Tariff Schedule, the overall tariff for all categories is divided equally into Fixed Charges and Variable Charges. The Petitioner has proposed to divide the overall tariff in Fixed Charges and Variable Charges in the ratio of 60:40, respectively. Further, the Petitioner requested the Commission to consider the impact of under-recovery of tariff during the true-up of FY 2021-22.

Commission's View

As mentioned in earlier Chapter, the Commission has approved standalone Revenue Gap of Rs. 2,811.77 Lakh for FY 2021-22 for BSP-TEED against Revenue Gap of Rs. 2515.29 Lakh claimed by the Petitioner. Since FY 2021-22 is already over and the Commission has initiated a Suo-Motu Petition No. 12 of 2022 for determination of retail tariff for FY 2022-23, in the present Order, the Commission has not determined the tariff for FY 2021-22 as sought by the Petitioner.

As regards the retail tariff for FY 2022-23, the Petitioner has submitted that the retail tariff approved by the Commission for FY 2021-22 in Petition No. 41/2020 and

Petition No. 18/2021 shall be continued for FY 2022-23 as well. Therefore, the Commission has approved the category-wise retail supply tariff for BSP-TEED for FY 2022-23 as discussed below.

6.3 Average Cost of Supply (ACoS) for FY 2022-23

The Commission has computed the revenue at existing tariff for FY 2022-23 by considering the present applicable tariff, as approved by the Commission in the MYT Order dated December 27, 2017 and projected Energy Sales for FY 2022-23.

After taking into account the approved ARR for FY 2022-23 and the revenue at existing tariff, the Commission has calculated the ACoS and Revenue Gap at existing tariff as shown in the following Table:

Table 6-1: ACoS-ABR Gap as computed by the Commission for FY 2022-23

Sl. No.	Particulars	Unit	FY 2022-23
1	Net ARR approved for FY 2022-23	Rs. Lakh	9,742.62
2	Less: Revenue from Existing Tariff	Rs. Lakh	7,933.15
3	Revenue Gap/(Surplus)	Rs. Lakh	1,809.46
4	Energy Sales	MU	180.45
5	Average Cost of Supply (ACoS)	Rs./kWh	5.40
6	Average Billing Rate (ABR)	Rs./kWh	4.40
7	ACoS-ABR Gap	Rs./kWh	1.00
8	Tariff increase required for full recovery	%	22.81%

The Commission notes that BSP-TEED, in its Tariff Proposal for FY 2021-22, has proposed average tariff increase of 5% and proposed partial recovery of approved Revenue Gap for FY 2021-22. As regards the retail tariff for FY 2022-23, the Petitioner has requested the Commission for processing of petition registered as petition no. 42 of 2020 and revised petition submitted on 17/01/2021 for determination of retail tariff of FY 2021-22 with projected tariff for the FY 2022-23. This partial recovery of ARR will lead to Revenue Gap, which will need to be considered in subsequent years. However, the Commission has approved an average tariff increase of 5% towards the recovery of approved ARR for FY 2022-23 in line with tariff increase proposed by the Petitioner for FY 2021-22. The ACoS approved by the Commission and ARR considered for recovery through tariff in FY 2022-23 is shown in the following Table:

Table 6-2: Approved ACoS for FY 2022-23

S. No.	Particulars	Unit	FY 2022-23
1	Energy Sales	MU	180.45
2	ARR for recovery	Rs. Lakh	9,742.62
3	ACoS	Rs./kWh	5.40

6.4 Tariff for FY 2022-23

In determining the ARR and the retail supply tariff of BSP-TEED for FY 2022-23, the Commission has been guided by the provisions of the Act, National Electricity Policy (NEP), Tariff Policy, and the CSERC MYT Regulations, 2021.

Section 61 of the Act lays down the broad principles and guidelines for determination of retail supply tariffs. The basic principle is to ensure that tariff should progressively reflect the cost of supply of electricity and gradually reduce the cross-subsidies between categories. The Act lays down special emphasis on safeguarding of consumers' interest and also requires that the costs should be recovered in a reasonable manner. The Act mandates that tariff determination should be guided by factors which "encourage competition, efficiency, economical uses of resources, good performance and optimum investment".

The Act provides that while determining the tariff, the Commission shall not show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required. The Tariff Policy notified by the Government of India provides comprehensive guidelines for determination of tariff and determination of ARR of power utilities. The Commission has followed these Guidelines, as far as possible.

The Commission has approved an overall tariff increase of 5% for all categories, in line with the Petitioner's request. The existing ABR is Rs. 4.40/kWh. Hence, the tariffs have been designed to recover revenue at the average rate of Rs. 4.62/kWh.

The present tariff structure of BSP-TEED is not in accordance with the prevalent and accepted philosophy of tariff determination, as the Fixed Charges are applicable in terms of Rs. per kWh. Hence, the Commission has decided to levy Fixed Charges in terms of Rs/kW/month for LV categories and Rs/kVA/month for HV categories, in line with the approach adopted by the Commission for other distribution licensee i.e. CSPDCL.

In the absence of data regarding Sanctioned Load or Contract Demand, the revenue from Fixed/Demand Charges for LV consumers have been assumed at the same ratio as that of CSPDCL, as the Fixed/Demand Charges have been approved at the same level as that for CSPDCL. As the impact of levy of Demand Charges cannot be estimated in the absence of data regarding Contract Demand for HV categories, the Demand Charges have been fixed at Rs. 190/kVA/month which is approximately 50% of the demand charges of CSPDCL. The Energy Charges have been determined such that the revenue from revised tariff is 5% higher than the revenue from existing tariff, and after adjusting the revenue from Fixed Charges and Demand Charges levied in terms of Rs/kW/month and Rs/kVA/month, respectively. Further, for HV categories, the Energy Charges have been determined in terms of Rs/kWh, in the absence of kVAh consumption data.

It is clarified that considering the data unavailability and the changes to the tariff structure made by the Commission in this Order, the revenue from revised tariff is only an estimation. Further, in line with the Petitioner's submission, the Commission directs the Petitioner to meet the revenue shortfall beyond the average tariff increase of 5%.

In its next Tariff Petition, the Petitioner should ensure that all relevant data for revenue computations are made available, in line with the revised tariff structure approved by the Commission in this Order. Further, kVAh consumption data should be submitted for HV categories.

In view of the above, the retail supply tariff approved by the Commission for FY 2022-23 is shown in the following Table:

Table 6-3: Approved Tariff for FY 2022-23

Consumer Category	FY 2022-23	
	Fixed Charges	**Energy Charges**
LV Categories	**Rs./kW/month**	**Rs./kWh**
LV-1: Domestic		
0-100	Rs. 20 for Sanctioned Load up to 5 kW Rs. 30 for Sanctioned Load above 5 kW and up to 10 kW Rs. 40 for Sanctioned Load above 10 kW	2.65
101-200		2.70
201-400		3.95
401-600		4.00
>600		6.30

Consumer Category	FY 2022-23	
	Fixed Charges	**Energy Charges**
LV-2: Non-Domestic		
0-100	50	3.75
101-400	50	5.30
>400	50	6.00
LV-3: Industry	120	4.35
LV-4: Public Utilities	190	7.60
LV-5: Temporary Supply	1.5 times of tariff as applicable to corresponding category	
HV Categories	**Rs./kVA/month**	**Rs./kWh**
HV-1: Residential	190	6.70
HV-2: Non-residential and General Purpose		
33 kV	190	7.00
11 kV	190	7.40
HV-3: Public Utilities	190	7.40

Further, in order to move towards a uniform Tariff Schedule and Tariff Applicability in the State of Chhattisgarh, the Commission has adopted the Tariff Schedule approved for CSPDCL, and has made the same Tariff Schedule applicable for BSP-TEED, with the appropriate changes, as required to factor in BSP-TEED's specific requirements.

BSP-TEED should ensure that the tariffs and various charges are levied strictly in accordance with the approved Tariff Schedule and the Management Information System captures the relevant data in the same format, so that the same can be submitted to the Commission in subsequent tariff filings.

6.5 Applicability of Order

The approved Tariff Schedule for FY 2022-23 is given in the next Chapter.

The Order will be applicable from 1st September, 2022 and will remain in force till 31st March, 2023 or till the issue of next Tariff Order, whichever is later. The Commission directs BSP-TEED to take appropriate steps to implement the Tariff Order.

7 TARIFF SCHEDULE FOR FY 2022-23

This Tariff Schedule shall be applicable from September 1, 2022.

7.1 Tariff Schedule for Low Voltage (LV) Consumers

This tariff schedule is applicable to all LV consumers as follows:

a) Single-phase, 230 Volts up to a maximum Sanctioned Load of 5 kW (excluding agriculture and industrial consumers), and

b) Three-phase, 400 Volts for maximum demand up to 112.5 kW in case of demand-based tariff or for maximum Sanctioned load of 150 HP in case of other tariff, as applicable.

7.1.1 LV-1: Domestic

Applicability

This tariff is applicable to domestic light and fan and power used for all domestic appliances, in residential premises, orphanages, homes for old/physically challenged people and homes for destitute, dharamshalas and working women's hostels run by charitable Trust, Government student hostels, ashrams, offices of National Cadet Core (NCC), Public Libraries and reading rooms, educational institutions and hospitals (including X-rays, etc.) run by charitable trusts / non-profit organizations / societies registered under the Firms and Societies Act, homes for differently abled and mentally retarded, de-addiction and rehabilitation centres, Government hospitals/dispensaries, (excluding private clinics and nursing homes), facilities like prayer hall, gymnasium and club house within the housing society, Government Schools, farm houses for own use, mosques, temples, churches, gurudwaras, religious and spiritual institutions, water works and street lights in private colonies and cooperative societies, common facilities such as lighting in staircase, lifts, firefighting in multi-storied housing complex, light and fan in gauthan and khalihan, kothar, byra where agriculture produce is kept, post office at residence of a villager, residential premises of professionals such as advocates, doctors, artists, consultants, weavers, bidi makers, beauticians, stitching and embroidery workers including their chambers, public toilets, fractional HP motors used for Shailchak by Kumhars in their residences, zero waste centre compost unit.

Tariff

Category of Consumers	Units Slab	Fixed Charge (Rupees per kW)	Energy Charge (Rs. per kWh)
LV-1: Domestic			
Domestic including BPL Consumers	0 -100 units	Rs. 20/- per kW/month for Sanctioned Load up to 5 kW; Rs. 30/- per kW/month for Sanctioned Load above 5 kW and up to 10 kW; Rs. 40/- per kW per month for Sanctioned Load above 10 kW	2.65
	101-200 units		2.70
	201-400 units		3.95
	401-600 units		4.00
	601 and above units		6.30

Notes:

i. Energy Charges are telescopic. For example, if consumption in any month is 150 units, then for first 100 units, rate of slab 0-100 shall be applicable and for remaining 50 units, rate of slab 101-200 shall be applicable;

ii. Fixed Charges is a monthly minimum charge, whether any energy is consumed during the month or not;

iii. Fixed Charges are telescopic. For example, if Sanctioned Load is 7 kW, then the rate of Rs. 20/- per kW/month shall be applicable for the first 5 kW and the rate of Rs. 30/- per kW/month shall be applicable for the balance 2 kW;

iv. If the Recorded Demand exceeds the Sanctioned Load for any three consecutive months, then the Sanctioned Load shall automatically be restated to the highest demand recorded in these three months. In such cases of upward restatement of Sanctioned Load, the load enhancement charges shall be applicable; however, the Security Deposit shall not be required to be increased correspondingly.

v. If the Recorded Demand is lower than the Sanctioned Load for any three consecutive months, then the Sanctioned Load can be restated to the highest demand recorded in these three months at the option of the consumer.

vi. If a portion of the dwelling is used for the conduct of any business other than those stipulated above, the entire consumption shall be billed under Non-domestic tariff LV-2.

7.1.2 LV-2: Non-Domestic

Applicability

This tariff is applicable to light and fan and power to shops, showrooms, business houses, offices, educational institutions (except those included in LV-1 and LV-5), public buildings, Warehouses, town halls, clubs, gymnasium and health clubs, meeting halls, places of public entertainment, circus, hotels, cinemas, railway stations, private clinics and nursing homes including X-rays plant, diagnostic centres, pathological labs, carpenters and furniture makers, juice centres, billboards/hoardings and advertisement services, typing institutes, internet cafes, STD/ISD PCO's, Mobile Towers, coaching centres, FAX/photocopy shops, tailoring shops, photographers and colour labs, laundries, cycle shops, compressors for filling air, toy making industry, nickel plating on small scale, restaurants, eating establishments, Government circuit houses/rest houses, guest houses, marriage gardens, farmhouses being used for commercial purposes, book binders, offset printers, bakery shop, banks, parlours, printing press, computer centre, petrol pumps and service stations, electric charging centres for Vehicles, HV industrial consumers seeking separate independent LV connection in the same premises of HV industrial connection and other consumers not covered under any other category of LV consumers.

Tariff

Category of Consumers	Units Slab	Fixed Charge (Rs per kW of Contracted load/Billing Demand)	Energy Charge (Rs. per kWh)
LV-2: Non-Domestic	0 – 100 units	Rs. 50 per kW per month	3.75
	101 - 400 units		5.30
	401 and above units		6.00

Notes:

i. Fixed Charges of LV-2.1 is a monthly minimum charge, whether any energy is consumed during the month or not.

ii. If the Recorded Demand exceeds the Sanctioned Load for any three consecutive months, then the Sanctioned Load shall automatically be restated to the highest demand recorded in these three months. In such cases of upward restatement of Sanctioned Load, the load enhancement charges shall be applicable; however, the Security Deposit shall not be required to be increased correspondingly.

iii. If the Recorded Demand is lower than the Sanctioned Load for any three consecutive months, then the Sanctioned Load can be restated to the highest demand recorded in these three months at the option of the consumer.

iv. For charging stations of electric vehicles, a flat rate single part tariff of Rs. 5 per unit shall be applicable.

v. A discount of 10% on Energy Charges shall be applicable for commercial activities being run exclusively by registered women self-help groups.

7.1.3 LV-3: L.V. Industry

Applicability

These tariffs are applicable to power, light and fan for industries such as flour mills, hullers, grinders for grinding masala, textile industries including power looms and handlooms, rice mills, poha and murmura mills, dall-mills, oil mills, ice factories, cold storage plants, ice candies, terracotta, Jute industries, handicraft, agro-processing units, minor forest produce, ethanol industries, laboratories of engineering colleges, ITIs and polytechnics and industrial institutions, aluminium based factory, bakery/biscuit industries, bottling plant, cable/insulation industries, Cement Based Factory, Chemical Plant, Coal Based Industries, Conductor Wire Industries, Cutting & Polishing Of Marble, Fabrication Workshop, Food Processing Industry, Forest Product based factory, GI Wire Industries, Glass Industries, Hot Mixing Plant, IT based industries, Mineral based factory, Plastic Industries, Plywood factory, Pulverize industries, Rolling Mill, Saw Mill, Stone Crusher, Toy Industries, Wire Drawing / Steel Industries, Wire Product, Registered Women self-help group, workshops and fabrication shop, etc.

Tariff

Category of Consumers	Demand Charge	Energy Charge (Rs. per kWh)
LV-3: L.V. Industry	Rs. 120/kW/month on billing demand	4.35

Notes:

i. Demand Charge on contract demand is monthly minimum charge, whether any energy is consumed during the month or not.

ii. In order to give impetus to LV industries located in rural areas, a rebate of 5% in energy charges for consumers specified under tariff category shall be allowed for LV industries located in rural areas notified by Government of Chhattisgarh.

iii. A rebate of 10% on Energy Charges shall be applicable for industrial activities being run exclusively by registered women self-help groups.

iv. A discount of 5% on Energy Charges shall be applicable for Poha and Murmura mills.

7.1.4 LV-4: Public Utilities

Applicability

This tariff is applicable to colonies developed by Chhattisgarh State Housing Board and public utilities such as water supply schemes, sewage treatment plants and sewage pumping installations, crematorium, traffic signals and lighting of public streets including public parks and archaeological and other monuments when requisition for supply is made by Public Health Engineering Department, Local Bodies, Gram Panchayats or any organization made responsible by the Government to maintain these services

Tariff

Category of Consumers	Fixed Charge	Energy Charge (Rs. per kWh)
LV-4: Public Utilities	Rs. 190/kW/month	7.60

Notes:

i. Fixed Charge is monthly minimum charge whether any energy is consumed during the month or not.

ii. If the Recorded Demand exceeds the Sanctioned Load for any three consecutive months, then the Sanctioned Load shall automatically be restated to the highest demand recorded in these three months. In such cases of upward restatement of Sanctioned Load, the load enhancement charges shall be applicable; however, the Security Deposit shall not be required to be increased correspondingly.

iii. If the Recorded Demand is lower than the Sanctioned Load for any three consecutive months, then the Sanctioned Load can be restated to the highest demand recorded in these three months at the option of the consumer.

7.1.5 LV-5: L.V. Temporary Supply

Applicability

This tariff is for connections that are temporary in nature. The tariff applicable shall be as given for the respective category of consumer.

Provided that for construction purpose, a consumer shall be given a temporary connection only.

Temporary supply cannot be demanded by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made subject to technical feasibility.

Tariff:

Fixed Charge and Energy Charge shall be billed at one and half times the normal tariff as applicable to the corresponding consumer categories.

Notes:

i. An amount equal to estimated bill for 3 months or for the period of temporary connection requisitioned, whichever is less, is payable before serving the temporary connection, subject to replenishment from time to time and adjustment in the last bill after disconnection.

ii. No temporary connection shall be served without a meter.

iii. Connection and disconnection charge shall be paid as per the schedule of miscellaneous charges.

iv. No rebates/concessions under any head shall be applicable to temporary connections.

v. A month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or part thereof.

vi. In case connected load/maximum demand is found more than Sanctioned load/contract demand, then the billing of excess load/supply shall be done for the amount calculated as per para 1.1.11.

vii. Any expenditure made by the Licensee for providing temporary supply up to the point of supply, shall be paid for by the consumer as per prescribed procedure.

viii. Temporary connections shall not be served unless suitable capacitors, wherever applicable, are installed so as to ensure Power Factor of not less than 0.85 lagging.

ix. Surcharge at the rate of 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition, from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

7.1.6 Terms and Conditions of L.V. Tariff

1. Energy will be supplied to the consumer ordinarily at a single point for the entire premises of the consumer.
2. Sanctioned Load or Contract Demand/Maximum Demand infraction shall be rounded off to the next whole number.
3. If the bills are not issued consecutively for three months or more for any LV Consumer, billing on accumulated meter reading shall not be raised without approval of the officer not below the rank of Manager.
4. For the purpose of separate independent LV connection to HV Industrial consumer in the same premises of HV industrial connection, to meet out its essential load during emergency or non-availability of supply in HV connection under LV 2 category, conditions as mentioned in Clause 4.40 of the Chhattisgarh State Electricity Supply Code and its amendment, if any, shall be applicable.
5. The recorded demand for the respective month shall be reflected in the consumer bill.

7.1.7 Power Factor Incentive and Surcharge

i. Consumers, falling under tariff categories LV 3- LV Industry and LV 4: Public Utilities shall arrange to install suitable low-tension capacitors of appropriate capacity at their cost. The consumer also shall ensure that the capacitors installed by them properly match with the actual requirement of the load so as to ensure average monthly Power Factor of 0.9 or above. A consumer who fails to do so shall be liable to pay Power Factor surcharge @ 35 paise per kWh on the entire consumption of the month.

ii. All LV non-domestic consumers with Contracted Load of 15 kW or above shall arrange to install suitable Low Tension capacitors of appropriate capacity at their cost. The consumer shall ensure that the capacitors installed by him properly match with the actual requirement of the load so as to ensure average monthly Power Factor of 0.9 or above. A consumer who fails to do so will be liable to pay Power Factor surcharge @ 35 paise per kWh on the entire consumption of the month.

iii. All LV installations having welding transformer are required to install suitable Low Tension capacitors so as to ensure Power Factor of not less than 0.9. Consumers not complying with the above shall have to pay Power Factor surcharge of 75 paise per kWh on the entire monthly consumption, provided the load of the welding transformer(s) exceeds 25% of the total Sanctioned load.

   Note - For the purposes of computing the connected load of welding transformers in kW, a Power Factor of 0.6 shall be applied to the kVA rating of such welding transformers. The kVA rating can also be calculated on the basis of load voltage and maximum load current on secondary side of welding machine.

iv. The average monthly Power Factor recorded in the meter shall be considered for billing of Power Factor surcharge or Power Factor incentive, as the case maybe.

v. Levy of Power Factor surcharge as indicated above, shall be without prejudice to the rights of BSP-TEED to disconnect the consumer's installation after issue of 15 days' notice if the average monthly Power Factor remains 0.7 or below for a period of more than two consecutive months. It shall remain disconnected till the consumer makes suitable arrangements to improve the Power Factor.

vi. Notwithstanding the above, if the average monthly Power Factor of a new consumer is found to be less than 0.9 at any time during the first six months from the date of connection and if he maintains average monthly Power Factor continuously in subsequent three months at not less than 0.9, then the surcharge billed on account of low Power Factor during the said period shall be withdrawn and credited in next month's bill.

vii. All categories of LV consumers in whose case power factor surcharge is applicable; shall be eligible for Power Factor incentive for Power Factor of above 0.95. Such incentive shall be payable @ 1% of the energy charges for each 0.01 increase or part thereof in power factor above 0.95 up to unity power factor. For example, consumers with Power Factor of 0.965 shall be considered as 0.97 and be eligible for power factor incentive of 2% of energy charges. Consumers with Power Factor of 0.964 shall be considered as 0.96 and be eligible for power factor incentive of 1% of energy charges.

7.1.8 Provisions of billing in case of Excess Supply

1. For Sanctioned load-based tariff

i. The consumers, except the domestic (LV-1) consumers, availing supply at Sanctioned load-based tariff shall restrict their actual connected load within the Sanctioned load. However, in case the actual connected load in any month exceeds the Sanctioned load, the Sanctioned load-based tariff shall apply only to the extent of Sanctioned load and corresponding units of energy. The connected load in excess of Sanctioned load and corresponding units of energy shall be treated as excess supply except the domestic (LV-1) consumers. The excess supply so consumed in any month, shall be charged at the rate of one and half times of the Sanctioned load based tariff applicable to the consumer (fixed and energy charges and VCA charges, as applicable) for the excess connected load to the extent of 20% of Sanctioned load and at the rate of two times of Sanctioned load based tariff if the excess connected load is found beyond 20% of Sanctioned load for actual period of enhancement of load or 6 months whichever is less, including the month in which the existence of excess load is detected and shall be continued to be billed till excess load is removed or Sanctioned load is enhanced.

ii. Where the recording facility of demand is available, the billing on account of excess supply shall be restricted to the recorded month only.

iii. If the Recorded Demand exceeds the Sanctioned Load for any three consecutive months, then the Sanctioned Load, as applicable, shall automatically be restated to the highest demand recorded in these three months;

iv. If the Recorded Demand is lower than the Sanctioned Load for any three consecutive months, then the Sanctioned Load shall be restated to the highest demand recorded in these three months at the option of the consumer.

2. **Delayed Payment Surcharge**

If the bill is not paid by the consumer within the period (due date) prescribed for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any, but excluding amount of surcharge), subject to minimum of Rs. 5 shall be payable in addition, from the due date of payment as mentioned in the bill.

3. **Additional Charges**

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the Local Body receives supply.

4. **Advance Payment Rebate**

For advance payment made before commencement of consumption period for which bill is to be prepared, a rebate @ 0.5% per month on the amount which remains with the Licensee at the end of the calendar month excluding security deposit, shall be credited to the account of consumer after adjusting any amount payable to the Licensee subject to the net amount of advance being not less than Rs.1000 and shall be adjustable in next month's bill.

5. **Rounding off**

The bill shall be rounded off to the nearest multiple of Rs.10. Difference, if any, between the bill amount before and after rounding off, shall be adjusted in next month's bill.

For example: - If the total amount of bill is Rs. 235.00, then the bill shall be rounded off to Rs. 240 and Rs. 5.00 will be credited in next month's bill, whereas if the total amount of bill is Rs. 234.95, then the bill will be rounded off to Rs. 230 and Rs. 4.95 will be debited in next month's bill. In view of the above provision, no surcharge will be levied on outstanding amount, which is less than Rs. 10.

6. Applicability of tariff

In case of any dispute about applicability of tariff to a particular LV category, the decision of the Commission shall be final and binding.

7. Tax or Duty

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

8. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous charges to all categories of LV consumers except the consumers of domestic light and fan category. Domestic light and fan category consumer shall not be required to pay such charges.

9. Method of payment of Bills

(1) Consumer shall have the option to pay bills online or offline.

(2) Bill amount of more than **five thousand rupees** shall mandatorily be paid online.

(3) For bill amount less than or equal to **five thousand rupees**, consumer may pay the bill through cash or cheque or demand draft or electronic clearing system at designated counters of a bank or through credit or debit cards or online payment through distribution licensees' web portal or any digital mode of payment and any change or further addition in the mode of payment shall be more user friendly for the consumers than the prevailing system.

Provided that the distribution licensee may stipulate a suitable incentive or rebate for payment through online system for consumers who opt to pay bill amount less than or equal to **five thousand rupees**.

(4) The distribution licensee shall establish online portal as well as sufficient number of collection centres or drop boxes at suitable locations with necessary facilities, where consumer can deposit the bill amount with ease.

10. <u>Conditions to have over-riding effect</u>

All the above conditions of tariff shall be applicable to the consumer notwithstanding the provisions, if any, in the agreement entered into by the consumer with the Licensee.

7.2 Tariff Schedule for High Voltage (HV) Consumers

This tariff schedule is for consumers who avail supply at 11 kV or above.

7.2.1 HV-1: Residential

Applicability

This tariff shall be applicable for bulk supply at one point to colonies, multi-storied residential buildings, townships, including townships of industries provided that consumption of non-domestic nature for other general-purpose load (excluding drinking water supply, sewage pumping and street light) shall not be more than 10% of total monthly energy consumption.

In case the consumption of non-domestic nature for other general-purpose load exceeds 10% of total monthly energy consumption, the tariff of HV-3: Other Industrial and General Purpose Non-Industrial, shall be applicable on entire consumption.

This tariff shall also be applicable to hospitals including educational institutions and X-rays, etc., situated within its premises, run by charitable trusts / non-profit organizations / societies registered under the Firms and Societies Act.

Tariff

Category of Consumers	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kWh)
Residential	190	6.70

7.2.2 HV-2: Non-Residential and General Purpose

Applicability

i. This tariff is applicable to other HV categories not covered under HV-1and HV-3 for power, lights, fans, cooling ventilation, etc., which shall mean and include all energy consumption in factory, and consumption for residential and general use therein including offices, stores, canteen compound lighting, etc.

ii. This tariff is also applicable for bulk supply at one point to establishment such as Railways (other than traction), hospitals, offices, hotels, shopping malls, electric charging centres for Vehicles, power supplied to outside of State (border villages), educational institutions, mixture and/or stone crushers and other institutions, etc., having mixed load or non-industrial and/or non-residential load. This tariff is also applicable to all other HV consumers not covered specifically in any other HV tariff category.

iii. This tariff is applicable to consumers availing supply at 220/132/33/11 kV for manufacturing of plant, machinery and equipment used for generation of power from renewable sources of energy including for the manufacturing of hydel turbine, generator and related auxiliaries needed for small hydel plants up to 25 MW.

Tariff

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kWh)
33 kV supply	190	7.00
11 kV supply	190	7.40

Notes:-

i. For charging stations of Electric Vehicles, a flat rate single part tariff of Rs. 5 per unit shall be applicable.

ii. A discount of 15% on Energy Charges shall be applicable for defence establishments under Government of India.

iii. A discount of 5% on Energy Charges shall be applicable for rice mills/Poha and Murmura mills.

iv. A discount of 10% on Energy Charges shall be applicable for exclusive oxygen plants connected up to 33 kV supply voltage.

v. A discount of 25% on Energy Charges shall be applicable for Textile industries including handlooms and powerlooms, Jute industries, and ethanol industries.

7.2.3 HV 3: Public Utilities

Applicability

i. This tariff shall be applicable for Chhattisgarh State Housing Board and agriculture pump connections, irrigation pumps of lift irrigation schemes of

State Government or its agencies/co-operative societies, including colonies developed and energy used for lighting pump houses.

ii. This tariff is also applicable to the consumer availing supply at HV for the purpose of pump/tube well connections, other equipment for tree plantation, fisheries, hatcheries, mushroom cultivation, poultry farms, dairy, cattle breeding farms, sericulture, tissue culture and aquaculture laboratories and milk chilling plant and bakery for power, lights, fans, coolers, etc., which shall mean and include all energy consumed in factory, offices, stores, canteen, compound lighting, etc., and residential use therein.

iii. This tariff shall be applicable for public utility water supply schemes, sewerage treatment plants and sewage pumping installations run by P.H.E. Department, Local Bodies, Gram Panchayat or any organization made responsible by the Government to supply/maintain public water works/sewerage installation including energy used for lighting pump house. This tariff is applicable for supply of power to public water supply schemes, sewerage treatment and pumping installations including the energy used for lighting purposes.

Tariff

Supply Voltage	Demand Charge (Rs./kVA/month)	Energy Charge (Rs. per kVAh)
Irrigation, Agriculture Allied Activities & Public Water Works	190	7.40

Determination of Demand

The maximum demand of supply in each month shall be two times the largest number of kilo Volt Ampere hours delivered at the point of supply during any consecutive 30 minutes in the month as per sliding window principle of measurement of demand.

7.2.4 HV-4: Temporary Connection at H.V.

Applicability

This tariff is applicable to all HV connections.

Provided that for construction purpose, a consumer shall be given a temporary connection only.

Temporary supply cannot be demanded by a prospective consumer as a matter of right but will normally be arranged by the Licensee when a requisition is made subject to technical feasibility.

Tariff:

One and half times of the normal Tariff applicable for the corresponding category of consumer for demand and energy charge shall be applicable.

Notes:

- An amount equal to estimated bill for 3 months or for the period requisitioned, whichever is less, shall be payable in advance before the temporary connection is served subject to replenishment from time to time and adjustment in the last bill after disconnection.
- If maximum demand is found more than the contract demand in any billing month, the billing shall be done at one and half times/two times of the energy charges and Demand Charges as applicable, in case of exceeding contract demand in permanent connection, and shall be calculated as per Clause 10 of Terms & Conditions of HV tariff.
- Any expenditure made by BSP-TEED up to the point of supply for giving temporary connection shall be payable by the consumer as per prescribed procedure.
- Connection and disconnection charges shall be paid separately.
- No rebates/concessions under any head shall be applicable to temporary connections.
- Month for the purpose of billing of temporary supply shall mean 30 days from the date of connection or for part thereof.
- Other terms and conditions of the relevant category of tariff shall also be applicable.

Surcharge at 2% per month or part thereof on the outstanding amount of the bill shall be payable in addition from the due date of payment of bill, if the bill is not paid by the consumer within the period prescribed.

7.2.5 Terms and Conditions of HV Tariff

The maximum and minimum contract demand for different supply voltages is governed as per provisions of the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof. Presently, the minimum and maximum permissible load at respective supply voltage are as below except for independent distributed renewable energy system plants (IDRES) which will be governed by CSERC (Grid Interactive Distributed Renewable Energy Sources) Regulations, 2019:

Supply Voltage	Minimum	Maximum
11 kV	60 kVA	500 kVA
33 kV	60 kVA	15 MVA
132 kV	4 MVA	40 MVA
220 kV	15 MVA	150 MVA

Deviation in contract demand, if any, in respect of the above provisions on account of technical reasons, may be permitted with the approval of the Commission and billing shall be done accordingly. The HV consumers having contract demand exceeding the maximum limit mentioned above for respective voltage of supply shall be billed as specified at Clause 7 of Terms and Conditions of HV Tariff.

1. Point of Supply

Power will be supplied to consumers ordinarily at a single point for the entire premises. In certain categories like coal mines, power may be supplied at more than one point on the request of consumer subject to technical feasibility. HV industrial consumers can avail separate LV supply as per Clause 4.40 of the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof, in the same premises.

2. Billing demand

The billing demand for any month shall be the maximum demand (in kVA) of the consumer recorded during the billing month or 80% of the contract demand whichever is higher. The billing demand shall be rounded off to the next whole number.

3. Determination of Demand

The maximum demand means the highest load measured by sliding window principle of measurement in average kVA at the point of supply of a consumer during any consecutive period of 15 minutes during the billing period.

4. Minimum Charge

The demand charge on contract demand (CD) is a monthly minimum charge whether any energy is consumed during the month or not.

5. Rounding off

The amount of HV energy bill shall be rounded off to the nearest multiple of Rs.10.

For example - the amount of Rs. 12345 will be rounded off to Rs. 12350 and Rs. 12344.95 shall be rounded off to Rs. 12340.

In view of the above provision no surcharge will be levied on outstanding amount, which is less than Rs. 10.

6. Delayed Payment Surcharge

If the bill is not paid by the consumer within the period prescribed (due date) for payment of the bill, a surcharge @ 1.5% per month or part thereof, on the total outstanding amount of the bill (including arrears, if any but excluding amount of surcharge), shall be payable in addition, from the due date of payment as mentioned in the bill.

7. Additional charges for Local Bodies

Every Local Body shall pay an additional charge equivalent to any tax or fee levied by it under the provisions of any law including the Corporation Act, District Municipalities Act or Gram Panchayat Act on the poles, lines, transformers and other installations through which the Local Body receives supply.

8. Advance Payment Rebate

For advance payment made before commencement of consumption period for which bill is to be prepared, a rebate @ 0.5% per month on the amount, which remains with the Licensee at the end of calendar month excluding security deposit, shall be credited to the account of consumer after adjusting any amount payable to the Licensee, subject to the net amount of advance being not less than Rs.20,000 and shall be adjustable in next month's bill.

9. Additional Charge for Exceeding Contract Demand

The consumers should restrict their maximum demand to the extent of contract demand. In case the maximum demand during any month exceeds the contract demand, the tariff at normal rate shall apply only to the extent of the contract demand and corresponding units of energy. The demand in excess of contract demand and corresponding units of energy shall be treated as excess supply. The excess supply so availed, if any, in any month shall be charged at one and half times of the normal tariff applicable to the consumer (demand and energy charges) for the excess demand to the extent of 20% of contract demand and at the rate of two times of normal tariff if the excess demand is found beyond 20% of contract demand.

For all other consumer, where TOD is applicable:

i. During Off-Peak Hours, no additional charge will be levied on exceeding Contract Demand up to a maximum limit of 20%.

ii. Beyond 120% of contract demand, excess supply will be billed as per prescribed formula.

iii. Maximum recorded demand during off peak load period will not be considered for the purpose of demand charges billing, i.e., demand charges will be levied on maximum recorded demand during normal and peak load period.

For the purpose of billing of excess supply, the billing demand and the units of energy shall be determined as under:-

i. **Billing Demand / Contract Demand:**

The demand in excess of the contract demand in any month shall be the billing demand/ contract demand of the excess supply.

ii. **Units Energy:**

The units of energy corresponding to kVA of the portion of the demand in excess of the contract demand shall be:

EU= TU (1-CD/MD)

Where

EU - denotes units corresponding to excess supply,

TU - denotes total units supplied during the month,

CD - denotes contract demand, and

MD - denotes maximum demand.

The excess supply availed in any month shall be charged along with the monthly bill and shall be payable by the consumer.

The billing of excess supply at one and half times/two times of the normal tariff applicable to consumer is without prejudice to BSP-TEED's right to discontinue the supply in accordance with the provisions contained in the Chhattisgarh State Electricity Supply Code, 2011 and its amendments thereof.

i. No rebates/incentive is payable on such excess supply.

10. Additional Charge

The HV consumers having contract demand exceeding the maximum limit as prescribed in Clause 1 of terms and conditions of HV tariff shall be levied additional charges at the rate of 5% on Energy Charges of the respective consumer category.

11. Meter Hire

Meter hire shall be charged as per the schedule of miscellaneous and general charges of the H.V. Category consumers.

12. Tax or Duty

The tariff does not include any tax or duty, etc., on electrical energy that may be payable at any time in accordance with any law/State Government Rules in force. Such charges, if any, shall be payable by the consumer in addition to tariff charges.

13. Dispute on applicability of tariff

In case of any dispute on applicability of tariff on a particular category of HV industry/ consumer, the decision of the Commission shall be final and binding.

All the above conditions of tariff shall be applicable to the consumer notwithstanding the provisions, if any, in the agreement entered into by the consumer with the Licensee.

14. Method of payment of Bills

(1) Consumer shall have the option to pay bills online or offline.

(2) The distribution licensee shall establish online portal as well as sufficient number of collection centres or drop boxes at suitable locations with necessary facilities, where consumer can deposit the bill amount with ease.

8 DIRECTIVES

8.1 Directive to BSP-TEED

The Commission has given specific directives to BSP-TEED in this Order, in order to facilitate improvement in operational efficiency. BSP-TEED should comply with all these directives and submit quarterly reports to the Commission regarding status of compliance of these directives. BSP-TEED should also include a Chapter on Compliance of Directives along with its future ARR and Tariff Petitions.

Directives

i. The Commission directs BSP-TEED strictly to adhere with the Supply Code, Standard of Performance Regulation and Tariff order so that quality services to the consumers be assured.

ii. The Commission directs BSP-TEED to immediately take action to upgrade its existing distribution system so as to meet the growing demand in the Bhilai township area and provide safe and reliable electricity supply to the consumers. For this purpose, BSP-TEED should file Petition for approval of Capital Investment Plan with next tariff petition for the consideration of the Commission.

iii. BSP-TEED is directed to make the Consumer Grievance Redressal Forum functional.

iv. BSP TEED is directed to ensure that all relevant data for revenue computations are made available, in line with the revised tariff structure approved by the Commission in this Order, along with the subsequent ARR and Tariff Petition. Further, kVAh consumption data should be submitted for all HV categories.

Annexure - I – List of persons who submitted written submissions

S. No.	Name
1.	Shri Gyan Chand Jain, President, Bhilai Steel City Chamber of Commerce
2.	Shri P. R. Verma, General Secretary, Bhilai Lok Shrijan Samiti
3.	Shri Bashishth Narayan Mishra, Parshad, Bhilai Nagar Palik Nigam

Annexure-II – List of persons who submitted comments during hearing

S. No.	Name
1.	Shri Vijay Baghel, Member of Parliament, Durg Lok Sabha
2.	Shri Gyan Chand Jain, President, Bhilai Steel City Chamber of Commerce
3.	Shri Bashishth Narayan Mishra, Parshad, Bhilai Nagar Palik Nigam