Bihar Electricity Regulatory Commission

Case No.25 of 2023

Tariff Order

Truing up for FY 2022-23,
Annual Performance Review for FY 2023-24,
determination of Annual Revenue Requirement (ARR)
and Transmission Tariff for FY 2024-25

for

Bihar State Power Transmission Company Limited

(BSPTCL)

Issued on 1st March 2024

(With effect from 1st April, 2024)

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ABBREVIATIONS

A&G	Administration and General Expenses
ACT	Electricity Act. 2003
ARR	Annual Revenue Requirement
BERC	Bihar Electricity Regulatory Commission
BSHPS	Bihar State Hydro Power Station
BSEB	Bihar State Electricity Board
BSPHCL	Bihar State Power (Holding) Company Limited
BSPTCL	Bihar State Power Transmission Company Limited
BTPS	Barauni Thermal Power Station
CAGR	Compounded Annual Growth Rate
CAPEX	Capital Expenditure
CEA	Central Electricity Authority
CERC	Central Electricity Regulatory Commission
CGS	Central Generating Station
CTU	Central Transmission Utility
CWIP	Capital Work in Progress
DISCOM	Distribution Company
FC	Fixed Charges
FY	Financial Year
GFA	Gross Fixed Asset
KBUNL	Kanti Bijlee Utpadan Nigam Limited
KVA	Kilo Volt Ampere
KVAH	Kilo Volt Ampere Hour
KWH	Kilo Watt Hour
MoP	Ministry of Power
MU	Million Unit
MVA	Mega Volt Ampere
MW	Mega Watt
MYT	Multi-Year Tariff
NBPDCL	North Bihar Power Distribution Company Limited
NFA	Net Fixed Asset
NHPC	National Hydro Power Corporation
NTPC	National Thermal Power Corporation
O&M	Operation and Maintenance
PLF	Plant Load Factor
R&M	Repairs and Maintenance
RE	Revised Estimates
RoE	Return on Equity
SBPDCL	South Bihar Power Distribution Company Limited
SERC	State Electricity Regulatory Commission
TPS	Thermal Power Station

Bihar Electricity Regulatory Commission
Ground floor, Vidyut Bhawan –II
Nehru Marg, Patna – 800021

Case No: 25 of 2023

In the matter of:

Truing-up for FY 2022-23, Annual Performance Review (APR) for FY 2023-24 and determination of Annual Revenue Requirement (ARR) and Transmission tariff for FY 2024-25 for Bihar State Power Transmission Company Limited (BSPTCL).

AND

Bihar State Power Transmission Company Limited ……Petitioner

Present:
Arun Kumar Sinha- Member (Technical)
Parshuram Singh Yadav- Member (Legal)

ORDER

(Passed on 1st March 2024)

In exercise of the powers vested with Bihar Electricity Regulatory Commission under Section 62(1)(b) read with Section 64 (3) of the Electricity Act, 2003, Bihar Electricity Regulatory Commission (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021 (hereinafter referred to as 'Transmission Tariff Regulations') and other enabling provisions in this behalf, the Commission is issuing this order, Truing-up ARR for FY 2022-23, reviewing ARR for FY 2023-24, determining the ARR and Transmission Tariff for FY 2024-25 for transmission of electricity by Bihar State Power Transmission Company Limited (BSPTCL) in the State of Bihar.

As per Regulation 11.10 of the Tariff Regulations and for providing adequate opportunities to all stakeholders and general public for making comments/suggestions/objections on the petition as mandated under section 64(3) of the Electricity Act, 2003, the Commission directed BSPTCL to publish the petition in an abridged form as "Public Notice" in newspapers having wide circulation in the State inviting comments/suggestions/objections on the tariff petition. Accordingly, BSPTCL published the tariff petition in an abridged form as public notice in various newspapers. The petition was also placed on the BSPTCL's website and BERC's website as well. The last date for submission of comments/suggestions/objections was fixed as 15.01.2024.

The Commission, in order to ensure transparency in the process of dealing with the above petition and for providing proper opportunity to all stakeholders and general public for making suggestions/objections on the tariff petition, decided to hold the public hearing in its Court room at Patna on 01.02.2024.

The Commission took into consideration the facts presented by the BSPTCL in its petition and subsequent filings, comments/suggestions/objections received from stakeholders/consumer organizations/ general public and response of the petitioner BSPTCL there upon, has trued up the ARR for FY 2022-23, reviewed the APR for FY 2023-24, determined the ARR and Transmission tariff for FY 2024-25.

The Commission had approved net ARR of Rs.1231.36 Crore for FY 2022-23 in Tariff order dated 25.03.2022. BSPTCL has claimed the Annual Revenue Requirement (ARR) of Rs.1193.61 Crore in the true-up for FY 2022-23 against which the Commission after prudence check has approved only Rs.1163.82 Crore resulting in revenue surplus of Rs.67.54 Crore which is carried forward to the ARR of FY 2024-25 with applicable carrying cost.

BSPTCL has estimated ARR of Rs.1287.74 Crore in the review for FY 2023-24 against which the Commission has approved Rs.1238.66 Crore.

BSPTCL has projected the Annual Revenue Requirement of Rs.1812.40 Crore for FY 2024-25 against which the Commission has approved Rs.1720.84 Crore which includes carried forward revenue surplus of Rs.80.70 Crore (Rs.67.54 Crore + carrying cost of Rs.13.16 Crore) of FY 2022-23 to the ARR of FY 2024-25.

The Commission directs BSPTCL to recover the above ARR of Rs. 1720.84 Crore for FY 2024-25 in the form of transmission charges on monthly basis to the Distribution Companies i.e., NBPDCL, SBPDCL and all other long term/medium term transmission system users in the ratio of their respective contracted capacity in accordance with Regulation 16, 33 and 34 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021. The monthly Transmission charges shall be fully recovered from NBPDCL, SBPDCL and other transmission system users only if BSPTCL achieves at least 98% of Transmission system availability, else recovery of monthly Transmission charges shall be on pro-rata basis in terms of Regulation 16 and 33 of the BERC (Multi Year Transmission Tariff and SLDC charges) Regulations, 2021.

This order shall be effective from 1st April 2024 and shall remain in force till 31st March, 2025 or till the next tariff order of the Commission.

This order will be placed on the website of the Commission and copies will be sent to BSPHCL, BSPGCL, BSPTCL BGCL, NBPDCL, SBPDCL, Department of Energy/ Government of Bihar, Central Electricity Regulatory Commission and Central Electricity Authority.

Pronounced in the open court on this day of 1st March 2024.

Sd/-	**Sd/-**
Parshuram Singh Yadav	**Arun Kumar Sinha**
Member (Legal)	**Member (Technical)**

1. Introduction

1.1. Bihar Electricity Regulatory Commission (BERC)

The Bihar Electricity Regulatory Commission (hereinafter referred to as "Commission" or "BERC") was constituted by the Government of Bihar under Section 17 of the Electricity Regulatory Commission Act, 1998 vide Government of Bihar notification No.1284 dated 15th April 2002.

Section 82(1) of the Electricity Act 2003 specifies that the State Electricity Regulatory Commission established by the State Government under Section 17 of the Electricity Regulatory Commission Act, 1998 and functioning as such, immediately before the appointed date, shall be the State Electricity Regulatory Commission for the purpose of the Act.

1.2. Functions of BERC

As per Section 86 (1) of the Electricity Act 2003, the State Commission shall discharge the following functions, namely:

a) Determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State. Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
b) Regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
c) Facilitate intra-state transmission and wheeling of electricity;
d) Issue licenses to persons seeking to act as transmission licensee, distribution licensees and electricity traders with respect to their operations within the State;
e) Promote co-generation and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;

f) Adjudicate upon the disputes between the licensees, and generating companies and to refer any dispute for arbitration
g) levy fee for the purposes of this Act;
h) specify State Grid Code consistent with the Indian Electricity Grid Code specified with regard to grid standards;
i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
j) fix the trading margin in the intra-state trading of electricity, if considered, necessary; and
k) discharge such other functions as may be assigned to it under this Act.

1.3. Profile of BSPTCL

BSPTCL is a company registered under the Companies Act 1956 in June 2012, to which the State Government through the Department of Energy has vested transmission undertakings in Bihar of the erstwhile Bihar State Electricity Board and is a fully owned subsidiary company of BSPHCL. As per section 14 of the Electricity Act, the BSPTCL is a Transmission Licensee.

BSPTCL owns and operates the transmission system above 33kV i.e., at 132kV and 220kV system in Bihar state. The existing transmission system as on 30th September, 2023 is as given below:

Table 1.1: GSS and Power Transformer capacity (MVA)

Voltage level	As on 31.03.2023		Up to September 2023	
	No. of GSS	Capacity (MVA)	No. of GSS	Capacity (MVA)
220/132 kV	24	9850	24	10140
132/33 kV	127	15780	129	16090
Total	151	25630	153	26230

Table 1.2: Transmission line length (Ckt KM)

Transmission lines (Ckt. KM)	As on 31.03.2023	Up to September 2023
220 kV	5102.53	5138.87
132 kV	12182.16	12232.26
Total	17284.69	17371.13

1.4. Admission of Current Petition and Public Hearing Process

BSPTCL has filed the present petition dated on 13th November 2023 for Truing-up for FY 2022-23, Annual Performance Review (APR) for FY 2023-24, determination of Annual Revenue Requirement (ARR) and Transmission Tariff for FY 2024-25 under Section 62 of Electricity Act 2003 read with BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021.

On preliminary verification of the petition, the Commission required certain clarifications/additional data/information to be furnished by the Petitioner. Accordingly, the Commission directed the Petitioner to submit such additional data/information and clarification vide letter No. BERC Tariff Case No-25/2023-1001 dated 27.11.2023. The Petitioner has submitted additional data/information and clarifications vide Letter No.T/STU/Tariff Petition-10/2023-75 dated 04.12.2023. The Commission has admitted the petition as Case No.25 of 2023 on 19.12.2023. In accordance with section 64 of the Electricity Act, 2003 and clause 11(10) of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021, the Commission directed the BSPTCL to publish the petition in an abridged form in at least two daily newspapers, one in English and the other in Hindi, having wide circulation in the State inviting objections and suggestions from stakeholders and consumers on the Tariff Petition.

BSPTCL was also directed to publish the schedule for Public Hearing along with the public notice inviting objections/suggestions.

The public notice was published in the following newspapers as given below:

Sl. No.	Name of the News Paper	Language	Date of Publication
1	Dainik Bhaskar	Hindi	23.12.2023
2	The Indian Express	English	23.12.2023
3	Prabhat Khabar	Hindi	30.12.2023
4	The Indian Express	English	06.01.2024

The tariff petition was also placed on the website of BSPTCL for inviting objections and suggestions on the petition and copies of the petition along with Annexures were also made available for sale in the Office of the Chief Engineer (STU), Bihar State Power Transmission Company Limited, 4th Floor, Vidyut Bhawan-I, Nehru

Marg, Patna-800021. The interested parties/stakeholders were asked to file their objections/ suggestions on the Petition on or before 15.01.2024.

The Commission has received written objections/suggestions from Bihar Industries Association, Patna. The Commission directed the Petitioner to submit the replies/response to the suggestions/objections to the objector with a copy to the Commission. The Petitioner has submitted the reply vide letter no.T/STU-Tariff petition-10/2023 (PART-1)-10 dated 06.02.2024.

The public hearing was conducted as scheduled on 01.02.2024 in the Court Hall, BERC office, Patna. A note on the main issues raised by the objectors in written submissions and also in the public hearing on the petition, along with the response of BSPTCL and the Commission's views on the response are given in **Chapter-3**.

1.5. Approach of this Order

The Commission has examined the petition and observed that certain additional data/information and clarifications are required for taking up detailed analysis of the Petition. The Commission directed the petitioner to submit the additional data/ information and clarifications vide the following references:

1. letter No. BERC Tariff Case No-25/2023-1001 dated 27.11.2023
2. letter No. BERC Tariff Case No-25/2023-11 dated 03.01.2024

The Petitioner has submitted additional information/data/clarifications as per the following:

1. Letter No. T/STU-Tariff Petition-10/2023-75 dated 04.12.2023
2. Letter No. T/STU-Tariff Petition-10/2023-03 dated 10.01.2024.

The Commission has undertaken Truing-up for FY 2022-23, Review for FY 2023-24, determination of Annual Revenue Requirement (ARR) and Transmission Tariff for FY 2024-25 in accordance with Regulation 1.2 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021.

1.6. Contents of this order

The order is divided into Seven (7) chapters for BSPTCL as detailed below:

1. **Chapter 1** provides background of BSPTCL, admission of the Petition, details of public hearing process and the approach adopted for this order.
2. **Chapter 2** contains summary of present Tariff petition of BSPTCL.
3. **Chapter 3** provides brief account of the public hearing process, including the objections raised by stakeholders, Petitioner's response and Commission's views on the same.
4. **Chapter 4** deals with the Truing-up for FY 2022-23.
5. **Chapter 5** deals with the Annual Performance Review for FY 2023-24.
6. **Chapter 6** deals with the Annual Revenue Requirement and Transmission Tariff for FY 2024-25.
7. **Chapter 7** deals with the compliance of directives issued in Tariff Order dated 21.03.2023.

2. Summary of Tariff Petition

2.1. Truing-up for FY 2022-23, Review for FY 2023-24 and determination of Aggregate Revenue Requirement (ARR) for FY 2024-25

The summary of Truing-up for FY 2022-23, Review for FY 2023-24 and determination of Aggregate Revenue Requirement (ARR) for FY 2024-25 as filed by BSPTCL is given in Table below:

Table 2.1: Summary of petition

(Rs. Crore)

Sl. No.	Particulars	FY 2022-23 (Actual)		FY 2023-24 (Estimated)		FY 2024-25 (Projections)	
		Approved in Tariff Order dated 25.03.2022	Now claimed in True up for FY 2022-23	Approved in Tariff Order dated 21.03.2023	Revised Estimates for APR for FY 2023-24	Approved in MYT Tariff Order dated 25.03.2022	Projected for FY 2024-25
1	Transmission system availability factor	98.50%	99.42%	98.50%		98.50%	
2	Intra-state transmission loss %	3.00%	2.57%	3.00%	3.00%	3.00%	3.00%
3	Capital Expenditure	1146.22	1694.02	803.63	1247.69	541.65	645.17
4	Capitalisation	1429.67	1318.31	2311.51	3070.52	1795.64	1413.48
5	Employee Cost	194.59	228.82	242.64	249.37	245.10	262.84
6	R&M expenses	70.19	64.84	76.72	73.97	91.94	95.47
7	A&G expenses	46.37	45.96	48.32	49.53	51.59	52.46
8	Holding company expenses	11.44	16.08	16.40	16.08	11.44	16.08
9	Depreciation	463.53	410.65	453.99	520.57	638.51	634.07
10	Interest on loan capital	355.69	348.21	408.21	447.48	475.42	543.38
11	Return on Equity	278.24	264.18	306.61	321.21	356.12	303.64
12	Interest on working capital	17.98	19.54	22.55	25.38	23.85	29.92
13	Incentive for TAF		12.27				
14	Less: Sharing of Gains / Losses on O&M expenses		12.72				
15	Less: Sharing of Gains / Losses on interest on working capital		(9.77)				
16	Less: Sharing of Gains / Losses on incentive on reduction of transmission availability		(6.14)				
17	Less : Non-tariff Income	(65.80)	(71.87)	(59.46)	(75.46)	(72.54)	(79.24)
18	Less: Income from other business (OPGW cable)		(1.03)		(1.03)		(1.03)
19	**ARR Sub-total (5 to 18)**	**1372.23**	**1334.48**	**1515.98**	**1627.10**	**1821.42**	**1857.59**
20	**Add**: Trued-up revenue gap / (surplus) of earlier year including carrying cost	(140.87)	(140.87)	(339.36)	(339.36)		(45.19)

Sl. No.	Particulars	FY 2022-23 (Actual)		FY 2023-24 (Estimated)		FY 2024-25 (Projections)	
		Approved in Tariff Order dated 25.03.2022	Now claimed in True up for FY 2022-23	Approved in Tariff Order dated 21.03.2023	Revised Estimates for APR for FY 2023-24	Approved in MYT Tariff Order dated 25.03.2022	Projected for FY 2024-25
21	**Annual Revenue Requirement (19+20)**	**1231.36**	**1193.61**	**1176.62**	**1287.74**	**1821.42**	**1812.40**
22	**Less**: Transmission charges received / approved	1231.36	1231.36	1176.62	1176.62		
23	**Revenue Gap/(Surplus) (21-22)**	**0.00**	**(37.75)**	**0.00**	**111.12**		

2.2. Request to the Commission

The Petitioner requested the Commission to:

a) Admit the petition filed;

b) Examine the proposal submitted by the Petitioner in the enclosed petition for a favourable dispensation;

c) Pass suitable orders with respect to True-up for FY 2022-23, APR for FY 2023-24 and ARR and tariff for FY 2024-25.

d) Approve open access charges to be recovered from open access consumers

e) Permit to propose suitable changes to the petition prior to approval by the BERC

f) Condone any inadvertent omissions/errors/short comings and permit to add/change/modify/alter the filings and make further submission as may be required at a future date

g) Pass impact of appeals and review alongwith carrying cost in case the issues raised in appeals and review are ruled infavour of BSPTCL.

h) Pass such Order as the Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

3. Stakeholders Objections/suggestions, Petitioner's Response and Commission's view

3.1. Background

In response to the public notice (abridge form of the petition) inviting objections / suggestions of the stakeholders on the Tariff Petition filed by BSPTCL, written objections were received from Bihar Industries Association (BIA), Patna.

3.2. Public Hearing

The public hearing, as scheduled was held on 01.02.2024 in the Court Room of BERC office, Patna wherein the representatives of Bihar Industries Association (BIA), Patna and representatives of NBPDCL and SBPDCL have put forth their objections and suggestions before the Commission in the presence of the Petitioner, BSPTCL. The list of participants in the public hearing is appended to this order as Annexure –I.

BSPTCL has submitted their reply on the objections/suggestions vide their letter no.T/STU-Tariff petition-10/2023 (PART-1)-10 dated 06.02.2024. The Commission has examined the objections/suggestions submitted by the Stakeholders in response to the petition, the replies given by the Petitioner and the views of the Commission have been summarized under various sub-heads as given below.

Issue 1: Transmission charges

Transmission charges are high and shall be made competitive compared to the transmission charges prevailing in the neighbouring states. Increase in BSPTCL charges lead to heavy burden on the consumers.

Petitioner's response:

ARR and transmission tariff is claimed in line with BERC Transmission Tariff Regulations 2021.

Commission's view:

The Commission has noted the views of the stakeholder and the Petitioner's response. The Commission with due diligence, validation of claims and prudence check is approving the ARR and the transmission charges year on year in accordance with the applicable BERC Transmission MYT Regulations.

Issue 2: Participation of Discoms

Discoms shall participate and represent the power utilities and make suggestions during the transmission tariff process. For maintaining economical distribution system, the prices of power purchase and transmission charges should be reasonable and economical.

Petitioner's response:

The matter pertains to Discoms.

Commission's view:

The Commission has noted the views of the stakeholder and the Petitioner's response. The representatives of the Discoms have participated in the public hearings on the petition of the BSPTCL. The power purchase is made by Discoms and the Power Management Cell (PMC) of BSPHCL (Holding Company of Discoms), is assisting the Discoms in power planning, procurement and other regulatory matters related to power procurement, etc.

The Commission with due diligence, validation of claims and prudence check is approving the ARR parameters year on year scrupulously adhering to the applicable BERC MYT Transmission Tariff Regulations.

Issue 3: Revenue and other income

Revenue from Transmission charges and other income shall be considered at actuals as reported in the audited annual accounts.

Petitioner's response:

Transmission charges and other income is claimed in true up at actuals based on audited accounts.

Commission's view:

The Commission has noted the views of the stakeholder and the Petitioner's response. The transmission charges and other income is considered at actuals in true up as reported in the annual accounts. BSPTCL maintains consolidated accounts including revenue and expenses of SLDC function, as such the revenue and expenses attributable to SLDC function are considered in SLDC tariff order separately and revenue and expenses pertaining to transmission function is considered for BSPTCL.

The Commission with due diligence, validation of claims and prudence check is approving the ARR parameters in accordance with the applicable BERC MYT Transmission tariff Regulations.

Issue 4: Employee cost

Employee cost is very high and should be allowed after examining the number of employees at different levels with their average salary.

Petitioner's response:

Employee expenses are computed and claimed on normative basis in accordance with the provisions of BERC MYT Transmission tariff regulations, 2021. The normative expenses claimed are lower than the actual employee expenses for FY 2022-23.

Commission's view:

The Commission has noted the views of the stakeholder and the Petitioner's response. The Commission, in accordance with the BERC MYT Transmission Tariff Regulations 2021, has determined norms for employee expenses for the control period of FY 2022-23 to FY 2024-25 in tariff order dated 25.03.2022. Accordingly, considering the norms the employee expenses are considered in instant tariff order. The Commission has aptly deliberated the subject in the relevant paragraphs in this order.

The Commission with due diligence, validation of claims and prudence check is approving the ARR parameters year on year in accordance with the applicable Regulations.

Issue 5: Gross fixed assets and Depreciation

Depreciation should be considered after reducing the accumulated depreciation on the related asset. Depreciation should be calculated on straight-line method considering the 10% of residual value. BSPTCL should be directed to submit Fixed Assets Register showing details of date of asset put to use and date of attaining full life of the asset.

Petitioner's response:

Depreciation is claimed at the rates prescribed in accordance with the regulations. BSPTCL has taken initiatives to prepare and maintain fixed asset register and the same will be submitted after completion.

Commission's view:

The Commission has noted the views of the stakeholder and the Petitioner's response. The tariff regulations and the accounting principles specify that the depreciation shall be computed on straight-line method considering the original cost of the asset at which the asset is acquired and useful life of the asset. Depreciation shall be provided year on year and the accumulated depreciation shall be limited to 90% of the value of asset.

The Commission with due diligence, validation of claims and prudence check is approving the ARR parameters in accordance with the applicable BERC MYT Transmission tariff Regulations.

Issue 6: Interest on loan

Interest on loan should be allowed confirming the project-wise source of loan and not on normative basis as the transmission charges per unit are increasing.

Petitioner's response:

BSPTCL has considered actual loans on consolidated basis and computed the actual weighted average rate of interest and claimed interest on normative loan in line with the BERC MYT Transmission Tariff Regulations, 2021.

Commission's view:

The Commission has noted the views of the stakeholder and the Petitioner's response.

Issue 7: Return on Equity

Return on equity should not be allowed on normative basis.

Petitioner's response:

Return on equity is claimed at 10.00% and with tax the rate works out to 12.27% for FY 2022-23 and FY 2023-24 and the rate of return on equity is claimed 8% in ARR for FY 2024-25.

Commission's view:

The Commission has noted the views of the stakeholder and the Petitioner's response.

4. True-up for FY 2022-23

4.1. Background

BSPTCL has submitted the tariff petition dated 13th November, 2023 which includes Truing-up for FY 2022-23. Regulation 13 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021 specify;

13. True-Up and Annual Performance Review:

The Commission shall True-Up expenses of the previous year either as part of the Tariff order or issue Order/s for True-Up of expenses preceding the Tariff order of ensuing year.

(a) An order for True-Up of expenses shall be issued on annual basis.

(b) An order for True-Up of expenses shall be on the basis of expense estimates made in the beginning of the year under consideration, actual expenses booked in the audited books of accounts of the Transmission Licensee or SLDC, as the case may be, for the year, and after prudence check of data by the Commission.

The Commission, accordingly, has undertaken the Truing-up for FY 2022-23 on the basis of audited annual accounts for FY 2022-23 and on prudence check of expenses.

4.2. Transmission Losses

BSPTCL has submitted that the Commission had approved Transmission Loss target of 3.00% for FY 2022-23 in Tariff Order dated 25.03.2022. BSPTCL has submitted that the actual transmission loss for FY 2022-23 is 2.57% as shown in the Table below:

Table 4.1: Actual Transmission Loss for FY 2022-23

SL. No.	Particulars	Approved in Tariff order dated 25.03.2022	Claimed by BSPTCL for FY 2022-23 in true up
1	Energy Input (in MU)		38747.13
2	Energy Output (in MU)		37752.43
3	Transmission Loss (in MU)		994.70
4	Transmission Loss (%)	3.00%	2.57%

Commission's analysis

The Commission had approved the transmission loss trajectory at 3.00% for each year of the control period of FY 2022-23 to FY 2024-25 in the MYT order dated 25.03.2022.

BSPTCL has claimed transmission loss at 2.57% in truing up for FY 2022-23, however, it is observed from the tariff petitions of the Discoms, the transmission loss considered by Discoms is at 3.32%. The Discoms have provided detailed calculations of intra state transmission loss in annexure 1 enclosed to their tariff petitions.

The Commission considers the transmission loss at 2.57% in the transmission network and overall transmission loss at 3.32% in the state transmission network for FY 2022-23 in true up., for computation of Energy Balance/requirement for Discoms. BSPTCL has not claimed incentive for achieving lower transmission loss (2.57%) than the target (3.00%) approved for FY 2022-23. Accordingly, the Commission has not considered incentive for transmission loss reduction in true up for FY 2022-23.

4.3. Capitalisation

Petitioner's submission

BSPTCL has submitted that opening balance of CWIP for FY 2022-23 is considered based on the closing balance of CWIP approved for FY 2021-22 in truing up in Tariff Order dated 21.03.2022.

BSPTCL has also submitted that several schemes for augmentation & strengthening of the existing transmission system are undertaken, therefore, addition to CWIP during the FY 2022-23 has been considered as per actual.

It is further, submitted that a separate Petition (Case No. 17 of 2023) is filed, as directed in Tariff order dated 21.03.2023, seeking prior regulatory approval for the projects which were not the part of the MYT Tariff Order for the Control Period of FY 2022-23 to FY 2024-25, orders are awaited.

Capital expenditure and capitalization during the year is considered as per annual accounts for FY 2022-23. BSPTCL has provided work-wise break-up of capitalization for FY 2022-23 as Annexure III.

The Petitioner has claimed the capital expenditure and capitalisation in truing up for FY 2022-23 as shown in the Table below:

Table 4.2: Capital expenditure and Capitalisation claimed for FY 2022-23

(Rs. Crore)

SL. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23
1	Opening CWIP	2398.97	3050.63
2	New Investment	1146.22	1694.02
3	Less: Capitalisation	1429.67	1258.77
4.	Less: IDC capitalised	--	59.54
4	Closing CWIP	2115.52	3426.34

Commission's analysis:

The Commission had approved closing CWIP at Rs.3050.63 Crore in true up for FY 2021-22 in the Tariff Order dated 21.03.2023 and the same is considered as opening CWIP for FY 2022-23.

According to the audited accounts for FY 2022-23, the capital expenditure is at Rs.1694.02 Crore and capitalisation at Rs.1318.31 Crore. BSPTCL has submitted the work-wise details of capital expenditure and capitalisation in Annexure-III.

It is observed from the list of projects/works furnished in the Annexure-III, IDC of Rs.59.54 Crore for FY 2022-23 is claimed to be capitalised relating to ADB and State Plan works. However, according to the audited accounts for FY 2022-23, no amount is depicted towards capitalisation of IDC. It was also noticed that there are certain works under which negative CWIP closing balances have resulted due to excess capitalisation proposed against the Opening CWIP and additions during the year and also due to no opening CWIP and investment during the year but capitalisation shown.

As such, the petitioner was addressed vide letter no.BERC-Tariff/Case no.25/2023/001 dated 27.11.2023 to reconcile the values and to substantiate the capex and capitalisation claimed in truing up for FY 2022-23.

The Petitioner vide letter dated 10.01.2024 has submitted that BSPTCL has received loans on consolidated basis and it is not project specific loan, accordingly, IDC in respect of each project has been computed only at the time of capitalization of the same. In respect of CWIP under "Common Pool" it is submitted that in absence of Fixed Assets Register, Opening Balance of some of the old projects lying in common pool is reflected as opening CWIP. However, BSPTCL is making all efforts to reconcile & resolving the issues of Common Pool. BSPTCL has requested to consider and allow the same.

According to the audited accounts, the capitalisation is at Rs.1318.31 Crore. The petitioner has submitted the work-wise/scheme-wise statement (Annexure-III) as per which the total capitalisation is at Rs.1318.31 Crore (capex Rs.1258.77 Crore and IDC Rs.59.54 Crore). The Commission has approved capex of Rs.1694.02 Crore and capitalisation of Rs.1318.31 Crore for FY 2022-23 in true up based on audited accounts.

It is observed from the work-wise/scheme-wise statement (Annexure-III), the petitioner has made capital investment of Rs.348.15 Crore and capitalised Rs.334.05 Crore towards reconductoring of 12 nos. of 132kV transmission lines with HTLS (NIT no.14/PR/BSPTCL/2022) under the Special Central Funding Scheme (New scheme). BSPTCL has filed (Case no.17/2023) capital investment plan for a total capex of Rs.2861.27 Crore (21 schemes) for FY 2022-23 to FY 2025-26 which includes the above scheme along with other new schemes. The Commission, vide orders dated 05.02.2024 in Case No.17/2023, has accorded approval of the capex plan for Rs.2806.07 Crore (total 20 schemes) and one scheme/work of Rs.55.20 crore pertaining to construction of 220 KV D/C Transmission Line from PGCIL Banka to BGCL Goradih with ACSR Zebra Conductor (Line Length 39 KM) against NIT.No.49/PR/BSPTCL/2022, is kept on hold in view of Grid substation of both ends are being owned, operated and maintained by two different entities namely PGCIL and BGCL.

The scheme-wise capital expenditure, capitalisation and source of funding for FY 2022-23 is shown in the table hereunder:

Table 4.3: Scheme-wise funding of capitalisation approved for FY 2022-23 in truing up

(Rs. Crore)

Sl. No.	Name of the scheme	Capitalisation	IDC	Total capitalisation	Equity	Loan	Grant
A	**12th Plan (ongoing projects)**						
1	State Plan	0.90		0.90	0.27	0.63	
2	IRF schemes	0.27		0.27		0.27	
	Sub-Total – A	**1.17**	**0.00**	**1.17**	**0.27**	**0.90**	**0.00**

Sl. No.	Name of the scheme	Capitalisation	IDC	Total capitalisation	Equity	Loan	Grant
B	**12th Plan (old projects)**						
3	IRF schemes	17.26		17.26		17.26	
4	State Plan	0.21		0.21	0.06	0.15	
5	Deposit schemes	1.03		1.03			1.03
	Sub-Total – B	**18.50**	**0.00**	**18.50**	**0.06**	**17.41**	**1.03**
C	**13th Plan (other projects)**						
6	State Plan	722.07	59.54	781.61	156.32	625.29	
7	IRF schemes	0.85		0.85		0.85	
8	Deposit schemes	44.22		44.22			44.22
	Sub-Total – C	**767.14**	**59.54**	**826.68**	**156.32**	**626.14**	**44.22**
D	**Spl. Central funded scheme**						
9	Spl. Central funded scheme	334.05		334.05	100.21	233.84	
	Sub-Total – D	**334.05**	**0.00**	**334.05**	**100.21**	**233.84**	**0.00**
E	**New projects**						
10	ADB	0.10		0.10		0.10	
11	IRF	10.75		10.75		10.75	
12	State plan	81.13		81.13	16.23	64.90	
13	BRGF	10.48		10.48	2.10	8.38	
14	Deposit works	35.45		35.45			35.45
	Sub-Total – E	**137.91**	**0.00**	**137.91**	**18.32**	**84.14**	**35.45**
	Total (A+B+C+D+E)	**1258.77**	**59.54**	**1318.31**	**275.19**	**962.42**	**80.70**

The Commission has approved the opening CWIP, capital expenditure and capitalisation during the year and closing CWIP for FY 2022-23 in truing up as given in the table below:

Table 4.4: Capital investment and capitalization approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2022-23 in Tariff Order dated 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23	Now approved in truing up for FY 2022-23
1	Opening CWIP	2398.97	3050.63	3050.63
2	Capital expenditure during the year	1146.22	1694.02	1694.02
3	Capitalisation during the year	1429.67	1318.31	1318.31
4	**Closing CWIP (1+2-3)**	**2115.52**	**3426.34**	**3426.34**

4.4. Gross Fixed Assets

Petitioner's submission:

BSPTCL has submitted the closing GFA approved in true up for FY 2021-22 in Tariff Order dated 21.03.2023 is considered as Opening GFA for FY 2022-23. Scheme-wise additions to GFA and IDC is as given hereunder:

Table 4.5: Scheme-wise additions to GFA claimed in true up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed by BSPTCL in truing-up for FY 2022-23
1	Schemes under State Plan	804.31
2	Schemes under BRGF	10.48
3	Schemes under IRF	29.13
4	Schemes under ADB	0.10
5	Schemes under Deposit Works	80.70
6	Schemes under Special Central Fund	334.05
	Total Scheme-wise Capitalization	**1258.77**
7	Interest during Construction (IDC)	59.54
	Total Capitalization transferred from CWIP	**1318.31**

Additions to GFA and withdrawal of asset on account of sale/disposal/transfer of assets based on the annual accounts for FY 2022-23 and arrived the closing GFA as detailed in the Table below:

Table 4.6: Gross Fixed Assets claimed in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2022-23 in Tariff Order dated 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23
1	Opening GFA	11475.78	10785.97
2	Additions during the year	1429.67	1248.29
3	Addition to Land		10.48
3	Interest during construction (IDC)		59.54
4	Less: Disposal/sale/transfer of assets		3.00
5	**Closing GFA (1+2+3-4)**	**12905.45**	**12101.28**

Commission's analysis:

The Commission had approved closing GFA at Rs.10785.97 Crore in true up for FY 2021-22 in Tariff Order dated 21.03.2023 and the same is adopted as opening GFA for FY 2022-23.

The Commission has approved capitalisation of Rs.1318.31 Crore (including IDC) truing up for FY 2022-23 as shown in the Table 4.3 above. Withdrawal of assets on account of sale/disposal/transfer is considered at Rs.3.00 Crore as reported in the audited annual accounts for FY 2022-23.

The Commission, accordingly, has considered the opening GFA, additions to GFA and closing GFA for FY 2022-23 in true up as detailed in the Table below:

Table 4.7: Gross Fixed Assets approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2022-23 in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23	Now approved in truing up for FY 2022-23
1	Opening GFA	11475.78	10785.97	10785.97
2	Additions during the year (incl. IDC)	1429.67	1307.83	1307.83
3	Add: Cost of Land		10.48	10.48
4	Less: Sale/disposal/transfer of assets		3.00	3.00
5	**Closing GFA (1+2+3-4)**	**12905.45**	**12101.28**	**12101.28**

4.5. Depreciation

Petitioner's submission:

BSPTCL has submitted that depreciation for FY 2022-23 is computed in accordance with Regulation 23 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021 as extracted hereunder:

"23 Depreciation

(i) Depreciation shall be calculated for each year of the control period on the original cost of the fixed assets of the corresponding year. No advance shall be granted against depreciation.

(ii) Depreciation shall not be allowed on assets funded by capital subsidies, beneficiary contributions or grants.

(iii) Depreciation shall be calculated annually on the basis of assets capitalised and put to use based on the straight-line method over the useful life of the asset and at the rate not exceeding the rate specified by the Central Electricity Regulatory Commission from time to time as provided in Appendix-III of these Regulations.

…….. Provided that freehold land shall not be treated as a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset. …..

BSPTCL has submitted the closing GFA approved in Truing-up of FY 2021-22 in Tariff order dated 21.03.2023 is considered as opening GFA for FY 2022-23.

BSPTCL has computed the depreciation for FY 2022-23 based on weighted average depreciation rate on average depreciable GFA. BSPTCL has considered weighted average rate of 5.23% on opening GFA and 2.65% on addition during the year worked out on the basis of annual accounts of FY 2022-23 as given below.

Table 4.8: Weighted average rate of Depreciation claimed in truing up for FY 2022-23

Sl. No.	Particulars	Rate of Depreciation	Opening Assets for FY 2022-23	Depreciation on opening assets for FY 2022-23	Additions during the year	Depreciation on asset additions during FY 2022-23
1	Land & Land Rights	0.00%	1664.25	0.00	10.48	0.00
2	Buildings	3.34%	70.82	2.37	0.50	0.01
3	Hydraulic Works	5.28%	0.06	0.00	0.00	0.00
4	Other Civil Works	3.34%	313.06	10.46	3.00	0.05
5	Plant and Machinery	5.28%	4701.52	248.24	346.04	9.14
6	Lines and Cable Network	5.28%	4284.08	226.20	952.72	25.15
7	Vehicles	6.33%	0.45	0.03	0.00	0.00
8	Furniture and Fixtures	6.33%	10.80	0.68	0.48	0.02
9	Office Equipment	6.33%	3.72	0.24	1.64	0.05
10	Computers & Accessories	15.00%	30.28	4.54	3.45	0.26
11	**Total other than Land & Land Rights**		**11079.04**	**492.75**	**1318.31**	**34.67**
12	**Weighted average rate of Depreciation (%)**			**5.23%**		**2.65%**

BSPTCL has separately computed depreciation on assets created out of Grants/Consumer Contribution/deposit works and adjusted the same in the gross depreciation to arrive at net depreciation to be charged in ARR of FY 2022-23. BSPTCL has claimed depreciation in truing up for FY 2022-23 as detailed in the Table below:

Table 4.9: Depreciation claimed in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2022-23 in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23
1	Opening GFA	11475.78	10785.97
2	Less: Value of Land	1448.32	1523.27
3	Value of GFA net of Land (1-2)	10027.46	9262.70
4	Addition during the year (excluding land and IDC)	1429.67	1248.29
5	Add: IDC	--	59.54
6	Less: Adjustment for assets sold/disposed		3.00
7	Closing GFA (3+4+5-6)	11457.13	10567.53
8	Average GFA (Average of 3 and 7)	10742.30	9915.11
9	Weighted average rate of depreciation on opening GFA	5.21%	5.23%
10	Weighted average rate of depreciation on addition during the year	3.89%	2.65%
11	Depreciation ((3*9) + ((4+5-6) *10))	577.86	519.39

Sl. No.	Particulars	Approved for FY 2022-23 in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23
12	Opening Grants	2136.05	2036.65
13	Assets capitalised funded through grants	79.54	--
14	Asset capitalised through deposit works		80.70
15	Total Grants	2215.59	2117.35
16	Average Grants	2175.82	2077.00
17	Weighted average rate of depreciation on opening grants	5.21%	5.23%
18	Weighted average rate of depreciation on addition during the year	3.89%	2.65%
19	Deprecation on Grants ((12*17) + (13+14) *18))	114.34	108.73
20	**Net Depreciation claimed in ARR (11-19)**	**463.53**	**410.65**

Commission's analysis:

The Commission has examined the computation of depreciation as submitted by the Petitioner.

The petitioner has claimed weighted average rate of depreciation of 5.23% on opening depreciable assets and prorate weighted average rate of depreciation of 2.65% on asset additions made during the year.

It is observed, the depreciation is at Rs.514.22 Crore as per Note No.2 of the audited annual accounts for FY 2022-23. However, the petitioner has considered total depreciation at Rs.527.57 Crore (492.90+34.67 Table 3.5 and 3.6 of the petition) while computing the weighted average rate of depreciation. The Commission vide letter no.BERC-Tariff Case no.25/2023/11 dated 03.01.2024 has addressed the petitioner to reconcile the total depreciation claimed in the petition vis-à-vis reported in the audited accounts for FY 2022-23. BSPTCL vide letter no.03 dated 10.01.2024 has submitted that the GFA balance approved by the Commission and GFA balance as per audited accounts is not same and depreciation in the audited accounts is calculated based on the GFA balance of audited accounts, hence, difference in calculation of weighted average rate of depreciation. BSPTCL has requested to consider the weighted average rate of depreciation as claimed in truing up for FY 2022-23.

The Commission has considered the depreciation during the year at Rs.514.22 Crore as reported in the audited accounts (Note 2). Accumulated depreciation withdrawn consequent to sale of assets/disposal is at Rs.2.20 Crore. The Commission has not considered withdrawal of accumulated depreciation since the amount represent the depreciation allowed for past years towards cost of repayment of loans and if adjusted against the depreciation for the year results in recovery of depreciation i.e. cost of repayment of loan. Accordingly, the weighted average rate of depreciation is calculated for FY 2022-23 considering the depreciation for the year and the depreciable GFA.

The Commission has considered the opening original cost of depreciable GFA exactly the same as closing balance of original cost of depreciable GFA approved in Table 4.11 of the true up for FY 2021-22 in Tariff Order dated 21.03.2023. Further, the value of asset disposals/sale/transfer during FY 2022-23, as depicted in the audited accounts, is adjusted against the opening GFA. Asset additions to depreciable GFA is considered as per accounts. The Commission has computed the weighted average rate of depreciation for FY 2022-23 as detailed hereunder:

Table 4.10: Weighted average rate of Depreciation computed for FY 2022-23

Sl. No.	Particulars	Rate of Depreciation	Opening Assets for FY 2022-23	Depreciation on opening assets for FY 2022-23	Additions during the year	Depreciation on asset additions during FY 2022-23
1	Land & Land Rights	0.00%	1523.09		10.48	
2	Buildings	3.34%	70.82	2.36	0.50	0.01
3	Hydraulic Works	5.28%	0.06		0.00	0.00
4	Other Civil Works	3.34%	313.06	10.66	3.00	0.05
5	Plant and Machinery (P&M)	5.28%	4701.52*	250.83	346.04	9.14
6	Lines and Cable Network (LCNW)	5.28%	4284.08*	206.40	952.72	25.15
7	Vehicles	6.33%	0.45		0.00	0.00
8	Furniture and Fixtures	6.33%	10.80	0.63	0.47	0.01
9	Office Equipment	6.33%	3.72	0.23	1.64	0.05
10	Computers & Accessories	15.00%	30.28	8.43	3.45	0.26
11	**Total**		**10937.88**	**479.54**	**1318.30**	**34.67**
	GFA excluding Land		**9414.79**		**1307.82**	
12	**Weighted average rate of Depreciation (%)**			**5.09%**		**2.65%**

* after adjustment of asset withdrawal Rs.1.50 cr in P&M and Rs.1.32 crore in LCNW as shown in audited accounts.

The Commission has approved closing Grant at Rs.2036.65 Crore in true up for

FY 2021-22 and the same is considered as opening Grant for FY 2022-23. Addition to grants is considered at Rs.80.70 Crore based on capitalisation as shown in Table 4.3 above. In absence of complete information, the rate of depreciation on assets created out of grant is considered exactly the same that was applicable on depreciable assets at 5.09% on opening grants and 2.65% on addition to grants during FY 2022-23.

The Commission has considered the depreciation in true up for FY 2022-23 as detailed in the Table below:

Table 4.11: Depreciation approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Now approved in truing up for 2022-23
1	Opening depreciable assets (as per the closing depreciable assets approved in true up for FY 2021-22 in TO dt. 21.03.2023)	9317.45
2	Additions during the year (excluding land Rs.10.30 Crore and sale/disposals of assets Rs.3.00 Crore))	1304.83
3	Closing GFA (1+2)	10622.28
4	Weighted average rate of depreciation on opening GFA	5.09%
5	Weighted average rate of prorate depreciation on addition during the year	2.65%
6	Depreciation (1*4)+(2*5)	508.84
7	Opening Grants	2036.65
8	Grants/consumer contribution during the year	80.70
9	Total Grants (7+8)	2117.35
10	Weighted average rate of depreciation on opening Grant	5.09%
11	Weighted average rate of prorate depreciation on addition during the year	2.65%
12	Depreciation on assets created out of grants (7*10) + (8*11)	105.80
13	Net Depreciation allowed in ARR (6-12)	**403.03**

The Commission approves depreciation of Rs.403.03 Crore for FY 2022-23 in truing up.

4.6. Interest and Finance Charges

Petitioner's submission:

BSPTCL has submitted that regulation 24 of BERC MYT Transmission Regulations, 2021 specifies provisions for computing the interest on loan. The relevant extracts are as follows:

"24. Interest and finance charges on loan capital

….

(e) The repayment for the control period shall be deemed to be equal to the depreciation allowed for the year.

…

(g) The rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the control period, in accordance with terms and conditions of relevant loan agreements, or bonds or nonconvertible debentures …..”

BSPTCL has submitted that normative opening balance of loan for FY 2022-23 is considered based on the closing balance of normative loan approved in Truing-up of FY 2021-22. Repayment of loan is considered equivalent to Depreciation in terms of regulation 24 (e). Loan addition is considered as per means of finance for FY 2022-23 as given hereunder:

Table 4.12: Loan and Equity additions claimed during FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Amount (Rs. Crore)
1	Capitalization during FY 2022-23	1318.31
2	Less: Grant and Deposit Works	80.70
3	Net Capitalization (A)	1237.61
4	**12th Plan Projects**	
5	Equity Considered	8.74
6	Debt Considered	20.49
7	**13th Plan Projects**	
8	Equity Considered	275.08
9	Debt Considered	933.30
10	**Total Equity**	**283.82**
11	**Total Debt**	**953.79**

As per regulations 24(g), rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of the year. BSPTCL has outstanding loan from ADB and financial institutions in FY 2022-23 and accordingly, considered weighted average rate of interest based on the rate of interest applicable on loan. BSPTCL has considered the effective rate of interest of 7.85% for loan from Financial Institutions. Rate of interest of ADB loan is 13.00%. BSPTCL has computed the weighted average rate of interest as shown in the table below:

Table 4.13: Weighted Average Interest rate claimed for FY 2022-23

Sl. No.	Particulars	Amount Outstanding (Rs. Crore)	Applicable Interest rate
1	Loans from Financial Institutions	2550.00	7.85%
2	Loans from ADB	464.13	13.00%
	Weighted Average Interest Rate		**8.56%**

BSPTCL has claimed other finance charges Rs.1.04 Crore based on the annual accounts of FY 2022-23.

The Petitioner has claimed interest and finance charges for FY 2022-23 in truing up as given in the table below:

Table 4.14: Interest on Loan claimed in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed in Truing-up of FY 2022-23
1	Opening Loan	**4169.17**	**3782.63**
2	Addition during the year	1094.94	953.79
3	Normative Repayment (Equal to Depreciation)	463.53	410.65
4	Closing Loan (1+2-3)	**4800.58**	**4325.77**
5	Average Loan	**4484.88**	**4054.20**
6	Interest Rate (%)	7.93%	8.56%
7	Interest on Loan	**355.65**	**347.17**
8	Other Finance Charges	0.04	1.04
9	**Interest and Finance Charges (7+8)**	**355.69**	**348.21**

Commission's analysis:

The Commission has considered normative opening loan at Rs.3782.63 Crore for FY 2022-23 based on the normative closing loan approved in true up for FY 2021-22 in Tariff order dated 21.03.2023.

The Commission, in terms of Regulations 24 (b) read with Regulation 22(a) of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021, has validated the source of funding of the schemes and capitalisation as detailed in Table 4.3. The Commission, accordingly considered loan additions during FY 2022-23 as given below:

Table 4.15: Source of funding of Capitalisation approved in truing up for FY 2022-23

(Rs. Crore)

Particulars	Capitalisation during FY 2022-23	Source of funding		
		Equity	Loan	Grant
Capitalisation as per accounts of BSPTCL	1318.31	275.19	962.42	80.70
Less: Assets disposed off	3.00	0.90	2.10	
Net capitalisation	**1315.31**	**274.29**	**960.32**	**80.70**

The Commission, in terms of Regulation 24 (e), has considered repayment of loans equivalent to Depreciation allowed in truing up for year 2022-23.

Regulation 24 (g) specify; t*he rate of interest shall be the weighted average rate of interest calculated on the basis of actual loan portfolio at the beginning of each year of the control period, in accordance with terms and conditions of relevant loan agreements, or bonds or non-convertible debentures:*

The Commission observed that Note 15 to the audited accounts states that rate of interest applicable for "Loans from financial institutions – Canara Bank" loan is MCLR. The Commission based on the applicable MCLR of Canara Bank has computed the weighted average rate on Loan from Financial Institutions-Canara Bank for FY 2022-23 as detailed in the table below.

Table 4.16: Weighted average rate of interest on Canara Bank Loan for FY 2022-23

MCLR rate applicable for the period from	MCLR rate applicable for the up to	MCLR rate%	No. of Days	FY 2022-23 (Weightage %)
01.04.2022	06.05.2022	7.25%	36	0.72%
07.05.2022	06.06.2022	7.35%	31	0.62%
07.06.2022	06.07.2022	7.40%	30	0.61%
07.07.2022	06.08.2022	7.50%	31	0.64%
07.08.2022	06.09.2022	7.65%	31	0.65%
07.09.2022	06.10.2022	7.75%	30	0.64%
07.10.2022	06.11.2022	7.90%	31	0.67%
07.11.2022	06.12.2022	8.10%	30	0.67%
07.12.2022	06.01.2023	8.15%	31	0.69%
07.01.2023	11.02.2023	8.35%	36	0.82%
12.02.2023	11.03.2023	8.50%	28	0.65%
12.03.2023	31.03.2023	8.60%	20	0.47%
			365	**7.85%**

Accordingly weighted average rate of interest calculated for FY 2022-23 is as detailed in table given below:

Table 4.17: Weighted average rate of interest on loans for FY 2022-23

Name of the institution	Opening loan balance (Rs. Crore)	Closing loan balance (Rs. Crore)	Average Loan balance (Rs. Crore)	Rate of interest %	FY 2022-23 (Weight age %)
Financial Institutions-Canara Bank	2550.00	3200.00	2875.00	7.85%	6.76%
ADB	464.13	464.13	464.13	10.50%	1.46%
Total Loans	3014.13	3664.13	3339.13		
Weighted average rate of interest (%)					**8.2157% (say 8.22%)**

The Commission, accordingly has computed interest on loan in the truing up for FY 2022-23 as detailed in the Table below:

Table 4.18: Interest on loans approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2022-23 in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23	Now approved in truing up for FY 2022-23
1	Opening Loan	4169.17	3782.63	3782.63
2	Addition during the year	1094.94	953.79	960.32
3	Normative Repayment	463.53	410.65	403.03
4	**Closing Loan (1+2-3)**	**4800.58**	**4325.77**	**4339.92**
5	**Average Loan (1+4)/2**	**4484.88**	**4054.20**	**4061.27**
6	Interest Rate (%)	7.93%	8.56%	8.22%
7	**Interest on Loan (5*6)**	**355.65**	**347.17**	**333.66**
8	Other Finance Charges	0.04	1.04	1.04
9	**Interest and Finance Charges (7+8)**	**355.69**	**348.21**	**334.70**

The Commission, accordingly, approves the interest on loans of Rs.333.66 Crore for FY 2022-23 in truing up.

The Commission also approves Rs.1.04 Crore towards other interest and Bank charges based on the audited accounts for FY 2022-23.

Thus, the Commission approves the Interest & Finance Charges of Rs.334.70 Crore for FY 2022-23 in truing up as detailed in the table above.

4.7. Return on Equity

Petitioner's submission

BSPTCL has submitted that it has considered opening equity based on closing equity approved in true up for FY 2021-22 in Tariff Order dated 21.03.2023. Addition to equity during FY 2022-23 is considered at Rs.283.82 Crore.

BSPTCL in terms of Regulation 22 read with Regulation 27, has considered rate of return on equity on pre-tax basis. The relevant extracts are as follows:

"22 (b) The return on the equity invested shall be allowed from the date of start of commercial operation and after put to use:

(c) Return on equity shall be computed at the rate of 15.5% for the project which is commissioned w.e.f. 01.04.2015 and further incentive equivalent to 0.5% will be allowed in the form of RoE, if the project is completed within schedule as per the

Annexure A or original schedule period as the case may be. However, Return on Equity for the project commissioned prior to 01.04.2015 shall be allowed at the rate of 14%.....

27 (2) Rate of return on equity shall be rounded off to two decimal places and shall be computed as per the formula given below:
Rate of pre-tax return on equity = Base rate / (1-t)

Where "t" is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of licensee/SLDC paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess…"

BSPTCL had claimed Rate of Return at 10% for FY 2022-23. BSPTCL has considered the MAT rate of 17.47% in line with the actual MAT rate applicable for FY 2022-23 and claimed return on equity for FY 2022-23 in truing up as given in the table below:

Table 4.19: Return on Equity claimed for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed in Truing-up of FY 2022-23
1	Equity as on 31.03.2015	375.41	375.41
2	Rate of Return on Equity	10.00%	10.00%
3	Tax/MAT rate %	17.47%	17.47%
4	Pre-tax Rate of return on equity (2/ (1-3)	12.12%	12.12%
5	Return on Equity (1*4)	45.50	45.49
6	Opening equity	1792.73	1662.91
7	Addition during the year	255.19	283.82
8	**Closing Equity (6+7)**	**2047.92**	**1946.73**
9	Average equity (6+8)/2	1920.33	1804.82
10	Rate of Return on Equity	10.00%	10.00%
11	Tax/MAT rate %	17.47%	17.47%
12	Pre-tax Rate of return on equity (10/ (1-11)	12.12%	12.12%
13	Return on Equity (9*12)	232.74	218.69
14	**Total Return on Equity (5+13)**	**278.24**	**264.18**

Commission's analysis:

The Commission has considered the closing equity of Rs.375.41 Crore as on 31st March 2015 (approved in the true up for FY 2014-15) in respect of assets capitalised upto 31st March 2015.

In respect of projects commissioned with effect from 1st April 2015, the opening equity is considered at Rs.1662.91 Crore based on the closing equity approved in true up for FY 2021-22 in Tariff order dated 21.03.2023. The addition to equity during FY 2022-23 is considered at Rs.241.93 Crore as approved in Table 4.15 above.

27. *Tax on Return on Equity*

1) *The base rate of return on equity as allowed by the Commission under Regulation 22 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned the transmission licensee or SLDC, as the case may be. The actual tax on income from other business including deferred tax liability (i.e. income on business other than business of transmission or SLDC, as the case may be) shall not be considered for the calculation of effective tax rate.*
2) *Rate of return on equity shall be rounded off to two decimal places and shall be computed as per the formula given below:*

   Rate of pre-tax return on equity = Base rate / (1-t)

   Where "t" is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of licensee/SLDC paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

   Illustration:-

   (i) In case of the licensee paying Minimum Alternate Tax (MAT) @ 20.96%

including surcharge and cess:

Rate of return on equity = 15.50/(1-0.2096) = 19.61%

(ii) In case of licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from the licensee business for FY 2017-18 is Rs 1000 Crore.

(b) Estimated Advance Tax for the year on above is Rs 240 Crore.

(c) Effective Tax Rate for the year 2017-18 = Rs 240 Crore/Rs 1000 Crore = 24%

(d) Rate of return on equity = 15.50/ (1-0.24) = 20.39%

(3) The Licensee or SLDC, as the case may be, shall true up the grossed-up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-20 to 2021-22 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the Licensee or SLDC as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries on year-to-year basis.

It is observed from the audited accounts for FY 2022-23, the petitioner has paid Rs.60.46 Crore towards tax on the profit of Rs.346.03 Crore. The Commission accordingly has calculated the effective tax rate at 17.47% considering the book profits and actual tax paid for FY 2022-23.

The Commission in terms of Regulation 27(1) and (3) considers effective rate of tax at 17.47% for FY 2022-23.

The Commission, accordingly, has approved Return on Equity in true up for FY 2022-23 as detailed in the Table below:

Table 4.20: Return on Equity approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed in Truing-up of FY 2022-23	Now approved for FY 2022-23 in true up
1	Equity as on 31.03.2015	375.41	375.41	375.41
2	Rate of Return on Equity	10.00%	10.00%	10.00%
3	Tax/MAT rate %	17.47%	17.47%	17.47%
4	Pre-tax Rate of return on equity (2/ (1-3)	12.12%	12.12%	12.12%
5	Return on Equity (1*4)	45.50	45.49	45.49
6	Opening equity	1792.73	1662.91	1662.91
7	Addition during the year	255.19	283.82	274.29
8	Closing Equity (6+7)	2047.92	1946.73	1937.20
9	Average equity (6+8)/2	1920.33	1804.82	1800.06
10	Rate of Return on Equity	10.00%	10.00%	10.00%
11	Tax/MAT rate %	17.47%	17.47%	17.47%
12	Pre-tax Rate of return on equity (10/ (1-11)	12.12%	12.12%	12.12%
13	Return on Equity (9*12)	232.74	218.69	218.11
14	**Total Return on Equity (5+13)**	**278.24**	**264.18**	**263.60**

The Commission accordingly approves Return on Equity at Rs.263.60 Crore in truing up for FY 2022-23.

4.8. Operation and Maintenance expenses

4.8.1. Employee cost

Petitioner's submission:

BSPTCL has submitted that normative employee cost for FY 2022-23 is computed based on the value of norms approved (revised) in Tariff Order dated 21.03.2023 in terms of No. of personnel per Ckt/km and No. of personnel per substation and annual expenses per personnel.

The Commission has approved the norms for the control period FY 2022-23 to FY 2024-25 in Tariff order dated 21.03.2023 as given below:

Particulars	Base Value
No. of personnel per Ckt KM	0.0823
No. of personnel per SS	7.2218
Annual expenses per personnel (Rs. Lakhs)	8.8320

Regulation 21.1 of BERC MYT Transmission Regulations, 2021 provides for escalation of base value norms for consideration of employee expenses. The relevant extracts are as follows:

"21.1 Employee Cost

Employee cost shall be computed as per the approved norm escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Transmission Licensee and one-time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears and Interim Relief, governed by the following formula:

*EMPn = (EMPb * CPI inflation) + Provision*

Where:

EMPn : Employee expense for the year n

EMPb : Employee expense as per the norm

CPI inflation: is the average increase in the Consumer Price Index (CPI) for immediately preceding three years……"

BSPTCL, in accordance with regulations 21.1, has considered CPI inflation of average of preceding three years (i.e., FY 2019-20, FY 2020-21 and FY 2021-22) for escalating base norms of employee expenses for FY 2022-23 as given in the table below:

Table 4.21: CPI Inflation computed by the petitioner for FY 2022-23

Particulars	**Actual**			
	FY 2018-19	**FY 2019-20**	**FY 2020-21**	**FY 2021-22**
Annual Average CPI	300	323	339	356
CPI Inflation		7.53%	5.02%	5.13%
Average CPI Inflation for last three years				**5.89%**

BSPTCL has accordingly computed employee expenses for FY 2022-23 as given in the table below.

Table 4.22: Employee expenses claimed in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	**Particulars**	**Base Norm**	**Approved in TO dated 25.03.2022**	**Claimed in Truing Up for FY 2022-23**
1	Average annual CPI index		6.00%	5.89%
2	Norms-Number of personnel per Ckt/km	0.0823	0.0823	0.0823
3	Norms-Number of personnel per substation	7.2218	7.2218	7.2218
4	Transmission line in Ckt km		17285	16653
5	No. of substations		152	149
6	Norms-Annual expenses per personnel (Rs. lakh)	8.8320	7.72	9.3525

Sl. No.	Particulars	Base Norm	Approved in TO dated 25.03.2022	Claimed in Truing Up for FY 2022-23
7	Employee cost (Number of personnel per Ckt/km basis) (2*4*6)/100 (Rs. Crore)		109.85	128.18
8	Employee cost (Number of personnel per substation basis) (3*5*6)/100 (Rs. Crore)		84.73	100.64
9	**Total Employee cost for the year (7+8) (Rs. Crore)**		**194.59**	**228.82**

Commission's analysis:

The Commission, in terms of regulation 21 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021, has approved (revised) Norms for employee expenses for the MYT control period of FY 2022-23 to FY 2024-25 in the Tariff order dated 21.03.2023 as given below:

Particulars	Base Value
No. of personnel per Ckt KM	0.0823
No. of personnel per SS	7.2218
Annual expenses per personnel (Rs. Crore)	0.08832

Regulation 21(g) specifies that the norms determined at constant prices of base year shall be escalated on account of inflation.

The Commission has examined the computation of the average increase in the Consumer Price Index (CPI) for the immediately preceding three years claimed by the petitioner and found correct. Accordingly, the Commission has considered average increase in the Consumer Price Index (CPI) 5.89% and escalated the base Annual expenses per personnel to arrive the normative Annual expenses per personnel for FY 2022-23.

The petitioner has furnished the details of total number of personnel, total no. of substations and total length of lines in Ckt KM for FY 2022-23 in Notes to Accounts Sl. No.14 – Quantitative details of Transmission lines, GSS and Personnel in audited accounts. The No. of GSS at 149, lines at 16653 Ckt KM and no. of employees at 2270 to end of FY 2022-23.

The Commission considering the approved norm and based on quantitative details has computed the employee expenses with CPI inflationary indexation of 5.89% for FY 2022-23 as detailed in the table below:

Table 4.23: Employee expenses approved for FY 2022-23 in true up

(Rs. Crore)

Sl. No.	Particulars	Base Norm	Approved (Revised) in TO dated 21.03.2023	Claimed in Truing Up for FY 2022-23	Now approved for FY 2022-23 in truing up
1	Average annual CPI index		5.89%	5.89%	5.89%
2	Norms-Number of personnel per Ckt/KM	0.0823	0.0823	0.0823	0.0823
3	Norms-Number of personnel per substation	7.2218	7.2218	7.2218	7.2218
4	Transmission line in Ckt/KM		16608	16653	16653
5	No. of substations		150	149	149
6	Norms-Annual expenses per personnel (Rs. lakh)	8.832	9.353	9.3525	9.352
7	Employee cost (Number of personnel per Ckt/KM basis) (2*4*6)/100 (Rs. Crore)		127.83	128.18	128.18
8	Employee cost (Number of personnel per substation basis) (3*5*6)/100 (Rs. Crore)		101.31	100.64	100.63
9	**Total Employee cost for the year (7+8) (Rs. Crore)**		**229.14**	**228.82**	**228.81**

The Commission approves employee cost at Rs.228.81 Crore for FY 2022-23 in true up as detailed in the table above.

4.8.2. Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

BSPTCL has submitted that regulation 21.2 specifies R&M expenses as percentage of opening gross fixed assets (excluding land cost). The Commission has determined the R&M norm 'K' factor at 0.70% in Tariff Order dated 25.02.2022 applicable for each year of the control period FY 2022-23 to FY 2024-25.

BSPTCL has considered 'K factor' of 0.70% and applied the same on the Opening GFA (net of Land) and claimed R&M expenses for FY 2022-23 as given in the table below:

Table 4.24: R&M expenses claimed in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed in Truing-up for FY 2022-23
1	Opening GFA (net of land)	10027.46	9262.70
2	% on GFA	0.70%	0.70%
3	**R&M expenses for the year**	**70.19**	**64.84**

Commission's analysis:

Regulation 21.2 read with regulation 21 specifies that the Commission shall stipulate a separate trajectory of norms as a percentage of gross fixed assets (excluding land cost) for Repair and Maintenance (R&M) expenses.

The Commission had determined the R&M norm 'K' factor at 0.70% for each year of the control period of FY 2022-23 to FY 2024-25 in the Tariff Order dated 25.03.2022 and same is considered for computing the R&M expenses for FY 2022-23 in truing up. The Commission has approved opening depreciable GFA at Rs.9317.45 Crore (net of land value) and the same is considered for determining the R&M expenses in true up for FY 2022-23.

The Commission accordingly considered the opening GFA (net of land value) and 'K' factor of 0.70% and approves the R&M expenses for FY 2022-23 in truing up as detailed in the Table below:

Table 4.25: R&M expenses approved for FY 2022-23 in true up

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed in Truing-up for FY 2022-23	Now approved for FY 2022-23 in truing up
1	Opening GFA (net of land)	10027.46	9262.70	9317.45
2	'K' factor (%)	0.70%	0.70%	0.70%
3	**R&M expenses for the year**	**70.19**	**64.84**	**65.22**

The Commission, accordingly, approves Rs.65.22 Crore towards R&M expenses for FY 2022-23 in truing up.

4.8.3. Administrative & General (A&G) Expenses

Petitioner's submission:

BSPTCL has submitted that the Commission in Tariff Order dated 25.03.2022 stipulated a separate trajectory of norm for A&G expenses defined in terms of A&G expense per personnel and A&G expense per Substation and annual expenses per personnel as given below:

Sl. No.	Particulars	Norm (Rs. In lakhs)
1	A&G Expenses per personnel	1.0400
2	A&G Expenses per sub-station	13.6600

Regulation 21.3 of BERC MYT Transmission Regulations, 2021 provides for escalation of base value norms for consideration of A&G expenses. The relevant extracts are as follows:

"21.3 Administrative and General (A&G) Expense

A&G expense shall be computed as per the norm escalated by wholesale price index (WPI) and Consumer Price Index (CPI) in the ratio 60:40 and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Transmission Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:

*A&Gn = (A&Gb * WPI inflation) + Provision*

Where:

A&Gn: A&G expense for the year n

A&Gb: A&G expense as per the norm

WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years……"

BSPTCL, in accordance with regulations 21.3, has considered CPI and WPI indices with weightage of 40:60 respectively of preceding three years (i.e., FY 2019-20, FY 2020-21 and FY 2021-22) for escalating base norms of A&G expenses for FY 2022-23 as given in the table below:

Table 4.26: CPI : WPI Inflation computed by the petitioner for FY 2022-23

Particulars	Actual			
	FY 2018-19	**FY 2019-20**	**FY 2020-21**	**FY 2021-22**
Annual Average CPI Index	300	323	339	356
CPI Inflation		7.53%	5.02%	5.13%
Annual Average WPI Index	120	122	123	139
WPI Inflation		1.68%	1.29%	13.00%
Average WPI : CPI (60:40) Inflation for preceding three years				**5.55%**

BSPTCL has considered base norm for Annual A&G expenses per personnel and WPI CPI inflation rate of 5.55% on base norms for Annual Expenses per personnel and accordingly computed A&G expenses for FY 2022-23 in true up as given in the table below.

Table 4.27:A&G expenses claimed in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Base Norm	Approved in TO dated 25.03.2022	Claimed in Truing up for FY 2022-23
1	Average annual CPI&WPI index		3.85%	5.55%
2	Norms-A&G Expenses per personnel	1.0400	1.0800	1.0977

Sl. No.	Particulars	Base Norm	Approved in TO dated 25.03.2022	Claimed in Truing up for FY 2022-23
3	Norms-A&G Expenses per substation (Rs. Lakh)	13.6600	14.1859	14.4182
4	No. of employees		2298	2230
5	No. of substations		152	149
6	A&G Expenses (No. of employee basis) (2*4) (Rs. Crore)		24.81	24.48
7	A&G Expenses (No of substations basis) (3*5) (Rs. Crore)		21.56	21.48
8	**Total A&G Expenses for the year (Rs. Crore) (6+7)**		**46.37**	**45.96**

Commission's analysis:

Regulation 21.3 read with regulation 21 specifies that the Commission shall stipulate a separate trajectory of norms for A&G expenses in terms of A&G expense per personnel and A&G expense per SS.

The Commission has determined the norm for A&G expenses for the control period of FY 2022-23 to FY 2024-25 in the Tariff order dated 25.03.2022 as given below:

Particulars	Base Value
A&G expense per personnel	1.0400
A&G expense per SS	13.6600

Regulation 21(g) specifies that the norms determined at constant prices of base year shall be escalated on account of inflation.

The Commission has computed the average increase in the Wholesale Price Index (WPI) and Consumer Price Index (CPI) for the immediately preceding three years as given hereunder.

Particulars	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22
Annual Average CPI Index	299.92	322.50	338.69	356.06
CPI Inflation		7.53%	5.02%	5.13%
Annual Average WPI Index	119.79	121.80	123.38	139.41
WPI Inflation		1.68%	1.29%	13.00%
Average WPI: CPI (60:40) Inflation for preceding three years				**5.55%**

The Commission, accordingly, has considered the average increase in the WPI CPI at 5.55% and escalated the base A&G expenses per personnel and A&G expenses per SS for computation of A&G expenses for FY 2022-23.

The petitioner has furnished the quantitative details of total number of personnel and total no. of substations in the audited annual accounts for FY 2022-23 in Notes to Accounts Note No.14 -Quantitative details of transmission lines, substations and Personnel. The No. of GSS at 149 and no. of employees at 2270 to end of FY 2022-23

The Commission considering the above has computed the A&G expenses with inflationary indexation of 5.55% for FY 2022-23 as detailed in the Table below:

Table 4.28:A&G expenses approved for FY 2022-23 in true up

(Rs. Crore)

Sl. No.	Particulars	Base Norm	Approved in TO dated 25.03.2022	Claimed in Truing up for FY 2022-23	Now approved for FY 2022-23 in truing up
1	Average annual CPI&WPI index		3.85%	5.55%	5.55%
2	Norms-A&G Expenses per personnel	1.0400	1.0800	1.0977	1.098
3	Norms-A&G Expenses per substation (Rs. Lakh)	13.6600	14.1859	14.4182	14.418
4	No. of employees		2298	2230	2230
5	No. of substations		152	149	149
6	A&G Expenses (No. of employee basis) (2*4) (Rs. Crore)		24.81	24.48	24.48
7	A&G Expenses (No of substations basis) (3*5) (Rs. Crore)		21.56	21.48	21.48
8	**Total A&G Expenses for the year (Rs. Crore) (6+7)**		**46.37**	**45.96**	**45.96**

The Commission approves A&G expenses at Rs.45.96 Crore for FY 2022-23 in true up as detailed in the table above.

4.8.4. Holding Company Expenses

Petitioner's submission:

BSPTCL has claimed the Holding Company expenses as per amount reflected in the annual accounts for FY 2022-23, as shown in the Table below:

Table 4.29: Holding Company Expenses claimed for FY 2022-23

(Rs Crore)

Particulars	Approved in TO dated 25.03.2022	Claimed in Truing-up for FY 2022-23
Holding Company Expenses	11.44	16.08

Commission's analysis:

The Commission observes that the audited annual accounts for FY 2022-23 depict Rs.16.08 Crore towards holding company expenses. Based on the audited annual accounts for FY 2022-23, the Commission considers the holding company expenses in truing up as detailed in the Table below:

Table 4.30: Holding company expenses approved in true up for FY 2022-23

(Rs. Crore)

Particulars	Approved in TO dated 25.03.2022	Claimed in Truing-up for FY 2022-23	Now approved in true up for FY 2022-23
Holding Company Expenses	11.44	16.08	16.08

The Commission, accordingly, approves Rs.16.08 Crore towards holding company expenses for FY 2022-23 in the truing up.

4.8.5. Total O & M expenses

Table 4.31: Total O&M Expenses claimed and approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed in Truing-up for FY 2022-23	Now approved in true up for FY 2022-23
1	Employee cost	228.82	228.81
2	R & M Expenses	64.84	65.22
3	A & G expenses	45.96	45.96
4	Holding Company expenses	16.08	16.08
5	**Total O&M expenses**	**355.70**	**356.07**

The Commission, accordingly, approves total normative O&M expenses at Rs.356.07 Crore for FY 2022-23 in the truing up.

4.8.6. Actual O&M Expenses

Petitioner's submission:

The Petitioner has submitted that the actual employee expenses, Repairs and Maintenance (R&M) expenses and Administration and General (A&G) expenses as per the audited accounts for FY 2022-23 are as given in the table below:

Table 4.32: Actual O&M expenses for FY 2022-23

Sl. No.	Particulars	Amount (Rs. Crore)
1	Employee expenses	242.80
2	R&M expenses	52.22
3	A&G expenses	70.04
	Total O&M Expenses	**365.07**

The Petitioner has requested the Commission to consider actual O&M expenses in truing up for FY 2022-23.

Commission's analysis:

The Commission has verified the actual employee expenses reported (Note 24) in the

Audited Accounts for FY 2022-23 to be Rs.249.04 Crore. The R&M expenses and A&G expenses reported (Note 27) in the audited accounts are at Rs.53.59 Crore and Rs.86.71 Crore (incl. Holding company expenses, CSR expenses and Donation to CM relief fund) respectively.

The Commission has approved O&M expenses based on the norms except for holding company expenses which are actuals and accordingly reduced from the A&G expenses for computing sharing of gains/losses in terms of regulation 9 and 10.

The audited accounts of BSPTCL for FY 2021-22 includes the SLDC business revenue and expenses (which is considered in SLDC true up in SLDC tariff order separately) and accordingly, the SLDC costs are excluded from the O&M expenses to arrive at the actual O&M expenses of BSPTCL for FY 2022-23 as given in the table below:

Table 4.33: Actual O&M expenses approved for FY 2022-23 in true up for the purpose of sharing gain or losses

(Rs. Crore)

Particulars	Employee cost	R&M expenses	A&G expenses	Total O&M cost
Cost/expenses as per audited accounts of BSPTCL for FY 2022-23	249.04	53.59	86.71	389.34
Less: Cost related to SLDC	6.24	1.37	0.58	8.19
Less: CSR expenses (Rs.6.00 Crore) and Donation to CM Relief fund (Rs.10 Crore)			16.00	16.00
Less: Holding company expenses which are considered separately			16.08	16.08
O & M Cost related to BSPTCL	**242.80**	**52.22**	**54.05**	**349.07**

The Commission, accordingly, has considered the actual O&M cost for FY 2022-23 in truing up for the purpose of computing sharing of gains/(losses) in terms of regulation 9 and 10.

4.9. Non-Tariff Income

Petitioner's submission

BSPTCL has considered the non-tariff income for truing up for FY 2022-23 as detailed in the Table below:

Table 4.34: Non-tariff income claimed in truing up for FY 2022-23

(Rs. Crore)

Particulars	Approved in Tariff Order dated 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23
Non-tariff income	65.80	71.87

Commission's analysis:

It is observed from the audited accounts that nontariff income is at Rs.72.35 Crore excluding Lease rent on OPGW (other business income) and deferred income towards amortization of grants on account of proportionate depreciation on the assets created out of grants. The Commission has already considered the deferred income (i.e. depreciation on assets created out of grant) as a part of depreciation in Table 4.11. Further, NTI of Rs.0.48 Crore is considered relating to SLDC business in truing up as detailed hereunder.

Description	NTI as per BSPTCL accounts	NTI considered relating to SLDC in true up	NTI considered for BSPTCL in true up
Interest from Banks	45.93	0.10	45.83
Interest from Income tax refund	3.14		3.14
Misc. receipts	1.24	0.01	1.23
Application fee received	0.12	0.04	0.08
STU Charges	0.42		0.42
Supervision charges	5.56		5.56
Other transmission charges	15.45	0.33	15.12
Administrative charges for deposit works	0.49		0.49
Total	**72.35**	**0.48**	**71.88**

Thus, the NTI of Rs.71.88 Crore is considered relating to BSPTCL in true up for FY 2022-23 as detailed in the Table below:

Table 4.35:Nontariff income approved in truing up for FY 2022-23

(Rs. Crore)

Particulars	Approved in Tariff Order dated 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23	Now approved in truing up for FY 2022-23
Non-tariff income	65.80	71.87	71.88

The Commission approves the non-tariff income at Rs.71.88 Crore in truing up for FY 2022-23.

4.10. Income from other Business (OPGW Cable)

Petitioner's submission

BSPTCL has submitted that it has leased out Dark Fiber of OPGW Network laid on EHV Line of BSPTCL transmission network of existing link.

The Commission vide order dated 20.10.2023 (Case No. 11 of 2023) has accorded approval for the OPGW Cable business and has also specified the sharing mechanism of the revenue derived from the business. The relevant extract is as follows:

"……………. and accordingly, it is decided that "Two third of the amount of Gain from the other business as proposed in the instant petition be allowed to pass through as an adjustment in the tariff of the petitioner and the balance one third of the amount of such gain shall be on account of the petitioner and shall be liable to be utilised at the discretion of the petitioner, BSPTCL."

It is submitted that AMC and other O&M expenses for the OPGW cable business are to be incurred and BSPTCL is in the process of tendering. During the year no expenses are incurred for OPGW Cable business.

The Commission vide order dated 20.10.2023 (Case No. 11 of 2023) has specify for sharing of gains from other business i.e. OPGW cable business. BSPTCL has proposed sharing of actual income received from other business in true-up of FY 2022-23. BSPTCL submitted that the gains from OPGW business shall be calculated after accounting for the expenditures from FY 2023-24 onwards.

BSPTCL has computed sharing of the gains derived from the other business in true up as detailed in the table below.

Table 4.36: Sharing of Gain of Other Business for the FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed by BSPTCL in truing up for FY 2022-23
1	Income From Other Business	1.54
2	Expenses of Other Business	0.00
3	Net Gain/(Loss) from Other Business (1-2)	1.54
4	Sharing of Gain (2/3 of Gain) as per Order dated 20.10.2023 (Case No. 11/2023)	1.03
5	**Net amount pass through Tariff**	**1.03**

Commission's analysis:

According to the audited accounts for FY 2022-23, BSPTCL has received Rs.1.54 Crore towards lease rental income on OPGW cable business/other business.

The Commission vide order dated 20.10.2023 in case no.11/2023 has "…………

decided that "Two third of the amount of gain from the other business as proposed in the instant petition be allowed to pass through as an adjustment in the tariff of the petitioner and the balance one third of the amount of such gain shall be on account of the petitioner and shall be liable to be utilized at the discretion of the petitioner, BSPTCL".

BSPTCL in accordance with the orders dated 20.10.2023 as above, has proposed sharing of income from other business.

The Commission has examined the computation of the petitioner for sharing of gains of other business and found in order and accordingly approves Rs.1.03 Crore as pass through in the ARR of FY 2022-23 in truing up.

The Commission approves sharing of other business income at Rs.1.03 Crore in truing up for FY 2022-23.

4.11. Incentive for achieving higher Transmission System Availability Target

Petitioner's submission

BSPTCL has claimed incentive for Transmission Availability Factor (TAF) for FY 2022-23 as per Regulation 16 of the BERC (Multi Year Transmission Tariff and SLDC charges) Regulations, 2021. BSPTCL has claimed the actual (average) TAF achieved at 99.42% and furnished the month-wise Transmission availability achieved during FY 2022-23 as given below:

Table 4.37: Month-wise Transmission Availability

April-22	May-22	June-22	July-22	Aug-22	Sep-22
99.26%	99.45%	99.50%	99.64%	99.33%	99.42%
Oct-22	**Nov-22**	**Dec-22**	**Jan-23**	**Feb-23**	**Mar-23**
99.46%	99.58%	99.10%	99.51%	99.10%	99.69%

BSPTCL has considered the target availability at 99.50% as specified in Regulation 16.1 (b)(iii) for computation of Incentive on account of achieving higher target TAF during FY 2022-23 than target and accordingly claimed incentive as shown in Table below:

Table 4.38: Incentive Claimed for TAF in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed by BSPTCL in truing up for FY 2022-23
1	Transmission Availability for FY 2022-23	99.42%
2	Target Availability for incentive	98.50%
3	Additional Achievement	0.92%
4	Annual Transmission Charges (Rs. Crore)	1334.48
5	Incentive for Target Availability (Rs. Crore)	12.27

Commission's analysis:

The Commission has examined the incentive claim of the Petitioner for FY 2022-23 in truing-up. The Petitioner has furnished the detailed month-wise computation of Transmission system availability and has claimed the incentive as per the formula prescribed in Regulation 16.3 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021. The Petitioner has considered target availability at 98.50% for claiming incentive for FY 2022-23 as specified in regulation 16.1 (b)(iii).

Regulation 16.3 specifies the formula for computation of incentive as given hereunder:

Incentive = Annual Transmission Charges x (Annual availability achieved – Target Availability) / Target Availability;

The Commission in terms of regulation has approved incentive for achieving higher transmission availability factor (TAF) of 99.42% vis-à-vis target TAF of 98.50% for FY 2022-23 in truing up as given in the table below:

Table 4.39: Incentive approved for TAF in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed by BSPTCL in truing up for FY 2022-23	Approved for FY 2022-23 in truing up
A	Transmission Availability for FY 2022-23	99.420%	99.42%
B	Target Availability	98.50%	98.50%
C	Additional Achievement	0.92%	0.92%
D	Annual Transmission Charges/ARR	1334.48	1304.69
E	**Incentive for Target Availability ((A-B)/B)*D)**	**12.27**	**12.19**

The Commission approves the incentive for achieving higher Transmission System Availability during FY 2022-23 in truing up as detailed in the table above.

4.12. Interest on working capital

Petitioner's submission

BSPTCL has submitted that regulation 26 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021 specifies the methodology for computation of Interest on Working Capital for the control period. The relevant extracts are as follows:

"26 Interest on working Capital

(a). The Transmission Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

i). Receivables equivalent to two (2) month of transmission charges calculated on target availability level.

ii). O&M Expenses of one (01) month.

iii). Maintenance spares @ 40% of R&M expenses for one month.

Less:

iv). Return on equity and contribution to contingency reserves equivalent to two months.

v). Amount of security deposits from Transmission System users, if any, held during the year except the security deposits held in the form of Bank Guarantee from Transmission System Users.

(b). Interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank one-year Marginal Cost of Funds-based Lending Rate ('MCLR') as of the date on which petition for determination of tariff is filed plus 150 basis points. The rate of interest for the purpose of Truing-up shall be the weighted average MCLR of the concern Financial Year plus 150 basis points.

(c). Interest shall be allowed on the amount held as security deposit from Transmission System Users at the Bank Rate as at the date on which the application for determination of tariff is filed. The interest allowed shall be subject to true up at weighted average Bank Rate of the concern Financial Year.

(d). If the State Government is providing resource gap grant and/or subsidy, the working capital shall be reduced by two months equivalent of that amount."

BSPTCL has submitted that in accordance with the provisions, has computed the interest on working capital for FY 2022-23. Regulation 26 (b) specifies that for the purpose of True-up, the rate of interest shall be State Bank of India (SBI) weighted average one-year MCLR for concerned financial year plus 150 basis points i.e. 1.50%.

BSPTCL has computed the weighted average of SBI 1-year MCLR for FY 2022-23 as detailed hereunder:

Sl. No.	From Date	To date	No. of Days	Base Rate	Amount
1	01-04-2022	14-04-2022	14	7.00%	0.98
2	15-04-2022	14-05-2022	30	7.10%	2.13
3	15-05-2022	14-06-2022	31	7.20%	2.23
4	15-06-2022	14-07-2022	30	7.40%	2.22
5	15-07-2022	14-08-2022	31	7.50%	2.33
6	15-08-2022	14-09-2022	31	7.70%	2.39
7	15-09-2022	14-10-2022	30	7.70%	2.31
8	15-10-2022	14-11-2022	31	7.95%	2.46
9	15-11-2022	14-12-2022	30	8.05%	2.42
10	15-12-2022	14-01-2023	31	8.30%	2.57
11	15-01-2023	14-02-2023	31	8.40%	2.6
12	15-02-2023	14-03-2023	28	8.50%	2.38
13	15-03-2023	31-03-2023	17	8.50%	1.45
14	Weighted average rate of interest				7.80%

BSPTCL has considered weighted average SBI MCLR 1 year tenor interest rate at 9.30% (7.80%+1.50%) for computation of interest on working capital for FY 2022-23. In accordance with the regulation 26(a)(ii), Maintenance spares are considered at 40% of 1-month R&M expenses of FY 2022-23.

BSPTCL has claimed the working capital and interest on working capital in truing up for FY 2022-23 as given in the Table below:

Table 4.40: Interest on Working Capital claimed for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed by BSPTCL in Truing-up for FY 2022-23
1	Receivables equivalent to two (2) months of Transmission Charges	228.71	222.41
2	O&M Expenses of one month	26.88	29.64
3	Maintenance spares @40% of 1 month R&M Expenses	2.34	2.16
4	Less: RoE and Contribution to Contingency Reserves for 2 months	46.37	44.03
5	**Total Working Capital**	**211.55**	**210.19**
6	Rate of Interest on working Capital (%)	8.50%	9.30%
7	**Interest on Working Capital**	**17.98**	**19.54**

Commission's analysis:

The Commission has examined the computation of interest on working capital submitted by the Petitioner. The Commission observes that the Petitioner has computed the working capital requirement and interest on working capital for FY 2022-23 as per the norms specified in regulation 26 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021.

The rate of interest on working capital is considered at 9.30% (weighted average SBI MCLR of 7.80% plus 1.50%) and maintenance spares are considered at 40% of one month R&M expenses as specified in the regulation 26.

The Commission, as per norms has computed the working capital requirement and interest on working capital based on the approved expenses at an interest rate of 9.30% for FY 2022-23 in truing up as given in the Table below:

Table 4.41: Interest on working capital approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed by BSPTCL in Truing-up for FY 2022-23	Approved in truing up for FY 2022-23
1	Receivables equivalent to two (2) months of Transmission Charges	228.71	222.41	217.45
2	O&M Expenses of one month	26.88	29.64	29.67
3	Maintenance spares @40% of 1 month R&M Expenses	2.34	2.16	2.17
4	Less: RoE and Contribution to Contingency Reserves for 2 months	46.37	44.03	43.93
5	**Total Working Capital**	**211.55**	**210.19**	**205.36**
6	Rate of Interest on working Capital (%)	8.50%	9.30%	9.30%
7	**Interest on Working Capital**	**17.98**	**19.54**	**19.10**

The Commission approves interest on working capital in truing up for FY 2022-23 as detailed in the table above.

4.13. Sharing of Gains / (Losses)

Petitioner's submission

BSPTCL has submitted that regulation 10 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021 specifies the mechanism for sharing of gains and losses on account of controllable factors. The relevant Regulations are as follows:

"10.1 The approved aggregate gain or loss to the Licensee or SLDC, as the case may be, on account of controllable factors shall be dealt with separately for aggregate

gain and aggregate loss in the following manner:

(a) Aggregate gain:

(i) 50% of the amount of such gain shall be a pass through as an adjustment in the tariff of the Licensee or SLDC, as the case may be, as specified in these Regulations and as may be determined in the Order of the Commission passed under these Regulations;

(ii) The balance 50% of the amount of such gain shall be on account of Licensee or SLDC, as the case may be, and such amount shall be utilized at the discretion of Licensee or SLDC, as the case may be.

(b) Aggregate Loss:

(i) 50% of the amount of such loss shall normally be a pass through as an adjustment in the tariff of the Licensee or SLDC, as the case may be, as specified in these Regulations and as may be determined in the Order of the Commission passed under these Regulations, provided the Commission is satisfied that such loss is not on account of deliberate action of the Licensee or SLDC, asthe case may be;

(ii) The balance 50% of the amount of such loss shall be on account of Licensee or SLDC and shall be absorbed by the Licensee or SLDC, as the case may be."

BSPTCL has claimed sharing of gains and losses on account of O&M expenses, Interest on Working Capital and Incentive on Transmission Availability Factor in True-up of FY 2022-23 as discussed hereunder:

Sharing of gains/(losses) on account of variation in O&M expenses

BSPTCL has claimed the sharing of gains on O&M expenses with respect to the difference between the actual and normative O&M expenses as shown in the Table below:

Table 4.42: Sharing of Losses / (Gains) on O&M expenses for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Basis	Claimed by BSPTCL in truing up for FY 2022-23
1	Normative expenses	A	339.62
2	Actual expenses	B	365.07
3	Losses/(Gains)	C=A-B	25.45
4	Losses/(Gains) to be passed on as	D=50% of C	12.72

Sl. No.	Particulars	Basis	Claimed by BSPTCL in truing up for FY 2022-23
	adjustment in Tariff		
5	Losses/(Gains) on O&M Expenses to be borne by the licensee	E=C-D	12.72

Sharing of gains/(losses) on account of variation in Working Capital Requirement

BSPTCL submitted that working capital is considered Nil as there is no actual working capital for FY 2022-23 and accordingly sharing of gains/(loss) has been worked out based on normative Interest on working capital claimed in Truing-up of FY 2022-23. BSPTCL has claimed sharing of gains and losses on account of Interest on Working Capital for FY 2022-23 as shown in the Table below:

Table 4.43: Sharing of Losses / (Gains) on Interest on Working capital for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Basis	Claimed by BSPTCL in truing up for FY 2022-23
1	Normative Interest on Working Capital	A	19.54
2	Actual Interest on Working Capital	B	0.00
3	Interest on Working Capital Losses / (gains)	C=A-B	(19.54)
4	50% of (gains) to be retained by the Licensee	D=50% of C	(9.77)
5	50% of (gains) to be passed through as an adjustment in Tariff	E=C-D	(9.77)

Sharing of gains/(losses) on account of Incentives on Transmission Availability Factor

BSPTCL has claimed incentive on account of higher Transmission Availability factor achieved in Truing up for FY 2022-23 and accordingly, has computed the sharing of gains/(losses) towards incentives on Transmission availability as shown in the Table below:

Table 4.44: Sharing of Loss/(Gain) of Incentive on Transmission Availability Factor for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Basis	Claimed by BSPTCL in truing up for FY 2022-23
1	Incentives on Transmission Availability Factor	A	12.27
2	50% of gains to be on account of Licensee	B=50% of A	6.14
3	50% of gains to be passed-on as adjustment through Tariff	C=A-B	6.14

BSPTCL requested the Commission to consider the gains on account of O&M

expenses, Interest on Working Capital and incentive for Transmission Availability Factor in True-up of FY 2022-23 as shown in the above Tables.

Commission's analysis:

Sharing of gains/(losses) on account of variation in O&M expenses

BSPTCL has claimed the sharing of gains on O&M expenses with respect to the difference between the actual and normative O&M expenses approved in true up. The Commission has approved the normative O&M expenses at Rs.339.62 Crore in true up for FY 2022-23. The actual O&M expenses are at Rs.349.07 Crore as per the audited annual accounts of FY 2022-23 (Table 4.33 above). The Commission in terms of regulation 10 has considered the sharing of gains/(losses) in true up for FY 2022-23 as given in the Table below:

Table 4.45: Sharing of Losses / (Gains) of O&M expenses for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed by BSPTCL in truing up for FY 2022-23	Approved in truing up for FY 2022-23			
			Employee cost	R&M expenses	A&G expenses	Total
1	Normative O&M expenses approved in true up	339.62	228.81	65.22	45.96	339.99
2	Actual O&M expenses as per audited accounts	365.07	242.80	52.22	54.05	349.07
3	(Gains) / Losses (2-1)	25.45	13.99	-13.00	8.09	9.08
4	50% of (Gains) / losses to be passed-on as adjustment through Tariff	12.73	6.99	-6.50	4.04	4.54
5	50% of (Gains) or losses to be retained/borne by the licensee	12.73	6.99	-6.50	4.04	4.54

Sharing of gains/(losses) of incentive for Transmission Availability Factor (TAF)

The Commission has approved the incentives for achieving higher Transmission Availability factor as shown in Table 4.39 above. The Commission accordingly has computed the sharing of Gains / (Losses) of incentives for TAF as shown in the Table below

Table 4.46: Sharing of Losses / (Gains) of incentives for TAF for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed by BSPTCL in truing up for FY 2022-23	Approved in truing up for FY 2022-23
1	Incentives for TAF approved in true up for FY 2022-23	12.27	12.19

Sl. No.	Particulars	Claimed by BSPTCL in truing up for FY 2022-23	Approved in truing up for FY 2022-23
2	50% of Gains to be passed-on as adjustment through Tariff	6.14	6.095
3	50% of Gains to be retained by the licensee	6.14	6.095

Sharing of gains/(losses) on account of variation in interest on working capital

The Commission observes from the Audited Accounts, that there are no working capital borrowings by the BSPTCL and no interest expenses incurred on working capital borrowings during FY 2022-23.

Regulation 8.2(e) specify that working capital requirements and interest on working capital are controllable factors. Regulation 10.1 states the gain or loss on account of controllable factors shall be shared as per mechanism specified in Regulation 10.1 (a) and (b). Sharing of gains/ (loss) shall be computed by comparing the normative expenses to actual expenses. According to the annual accounts for FY 2022-23, the BSPTCL has not incurred any expenses towards interest on working capital. As such, sharing of gains/ (loss) shall be considered based on the normative interest on working capital approved (Table 4.41) in truing up for FY 2022-23 vis-à-vis the actual Nil interest on working capital reported through audited accounts.

The Commission, accordingly has considered sharing of gains/(losses) of variation in interest on Working Capital as given in the table below:

Table 4.47: Sharing of Losses / (Gains) of interest on working capital for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Claimed by BSPTCL in truing up for FY 2022-23	Approved in truing up for FY 2022-23
1	Normative interest on working capital approved in true up	19.54	19.10
2	Actual interest on working capital as per audited accounts	--	--
3	Gains / (Losses) (1-2)	19.54	19.10
4	50% of gains to be retained by the licensee	9.77	9.55
5	50% of gains to be passed through tariff as adjustment	9.77	9.55

4.14. Revenue from transmission charges for FY 2022-23

Petitioner's submission

BSPTCL has submitted that the revenue earned by BSPTCL from Transmission Charges during FY 2022-23 as given in the table below:

Table 4.48: Revenue from Transmission Charges for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed by BSPTCL in Truing-up for FY 2022-23
1	Revenue from NBPDCL		557.31
2	Revenue from SBPDCL		654.23
3	Revenue from Railways		19.82
4	**Total Revenue from Transmission Charges**	**1231.36**	**1231.36**

Commission's analysis:

The Commission observes that according to the audited accounts, the petitioner has booked revenue from transmission charges at Rs.1231.36 Crore for FY 2022-23 as detailed in the Table below:

Table 4.49: Revenue from Transmission Charges for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in TO dated 25.03.2022	Claimed by BSPTCL in Truing-up for FY 2022-23	Approved in truing up for FY 2022-23
1	Revenue from NBPDCL		557.31	557.31
2	Revenue from SBPDCL		654.23	654.23
3	Revenue from other transmission system users		19.82	19.82
4	**Total Revenue from Transmission Charges**	**1231.36**	**1231.36**	**1231.36**

The Commission, accordingly, approves revenue from transmission charges at Rs.1231.36 Crore in truing up for FY 2022-23.

4.15. Annual Transmission Charges / ARR for FY 2022-23

Petitioner's submission

BSPTCL has claimed the revised ARR in true up for FY 2022-23 as detailed in the Table below:

Table 4.50: ARR claimed in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23
1	Employee cost	194.59	228.82
2	R&M expenses	70.19	64.84
3	A&G Expenses	46.37	45.96
4	Holding company expenses allocated	11.44	16.08
5	Interest and finance charges	355.69	348.21
6	Interest on working capital	17.98	19.55
7	Depreciation	463.53	410.65
8	Return on Equity	278.24	264.18
9	Incentive for TAF		12.28
10	sharing of losses/(Gains) on account of variation in O&M expenses		12.72
11	sharing of losses/(Gains) on account of variation in interest on working capital		(9.77)
12	sharing of losses/(Gains) on account of variation in TAF		(6.14)
13	**Less**: Non-tariff income	65.80	72.90
14	**ARR for the year**	**1372.23**	**1334.49**

Commission's analysis:

The Commission, based on the detailed analysis, has approved the annual transmission charges in truing-up for FY 2022-23 as detailed in the Table below:

Table 4.51: Annual Fixed Charges approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23	Now approved in truing up for FY 2022-23
1	Employee cost	194.59	228.82	228.81
2	R&M expenses	70.19	64.84	65.22
3	A&G Expenses	46.37	45.96	45.96
4	Holding company expenses allocated	11.44	16.08	16.08
5	Interest and finance charges	355.69	348.21	334.70
6	Interest on working capital	17.98	19.55	19.10
7	Depreciation	463.53	410.65	403.03
8	Return on Equity	278.24	264.18	263.60
9	Incentive for TAF		12.28	12.19
10	Sharing of 50% losses/(Gains) on account of variation in O&M expenses		12.72	4.54
11	sharing of 50% losses/(Gains) on account of variation in interest on working capital		(9.77)	(9.55)

Sl. No.	Particulars	Approved in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23	Now approved in truing up for FY 2022-23
12	Sharing of 50% losses/(Gains) on account of variation in TAF		(6.14)	(6.09)
13	**Less**: Non-tariff income	65.80	72.90	72.91
14	**ARR for the year**	**1372.23**	**1334.49**	**1304.69**

The Commission approves annual Transmission charges/ARR at Rs.1304.69 Crore in truing up for FY 2022-23.

4.16. Revenue Gap / (Surplus) for FY 2022-23

Petitioner's submission

BSPTCL has computed the revenue gap for FY 2022-23 in true up as detailed in the Table below:

Table 4.52: Revenue Gap projected in true up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2022-23 in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23
1	Aggregate Revenue Requirement for FY 2022-23	1372.23	1334.49
2	Add: Trued up Gap of FY 2020-21 including carrying cost	(140.87)	(140.87)
3	Net Annual Transmission Charges (1+2)	1231.36	1193.62
4	Less: Transmission charges approved/recovered	1231.36	1231.36
5	**Revenue Gap / (Surplus) for FY 2022-23 (3-4)**	**--**	**(37.74)**

Commission's analysis:

The Commission based on the audited annual accounts of BSPTCL for FY 2022-23 has considered revenue from transmission charges at Rs.1231.36 Crore as given in Table 4.49 above.

The Commission, based on the detailed analysis, has considered the annual Transmission charges/ARR and the revenue gap for FY 2022-23 in true up as detailed in the Table below:

Table 4.53: Revenue Gap approved in truing up for FY 2022-23

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2022-23 in Tariff Order 25.03.2022	Claimed by BSPTCL in truing up for FY 2022-23	Now approved in truing up for FY 2022-23
1	Aggregate Revenue Requirement for FY 2022-23	1372.23	1334.49	1304.69
2	Add: Trued up Gap of FY 2020-21 including carrying cost	(140.87)	(140.87)	(140.87)
3	Net Annual Transmission Charges (1+2)	1231.36	1193.62	1163.82
4	Less: Transmission charges approved/recovered	1231.36	1231.36	1231.36
5	**Revenue Gap / (Surplus) for FY 2022-23 (3-4)**	**--**	**(37.74)**	**(67.54)**

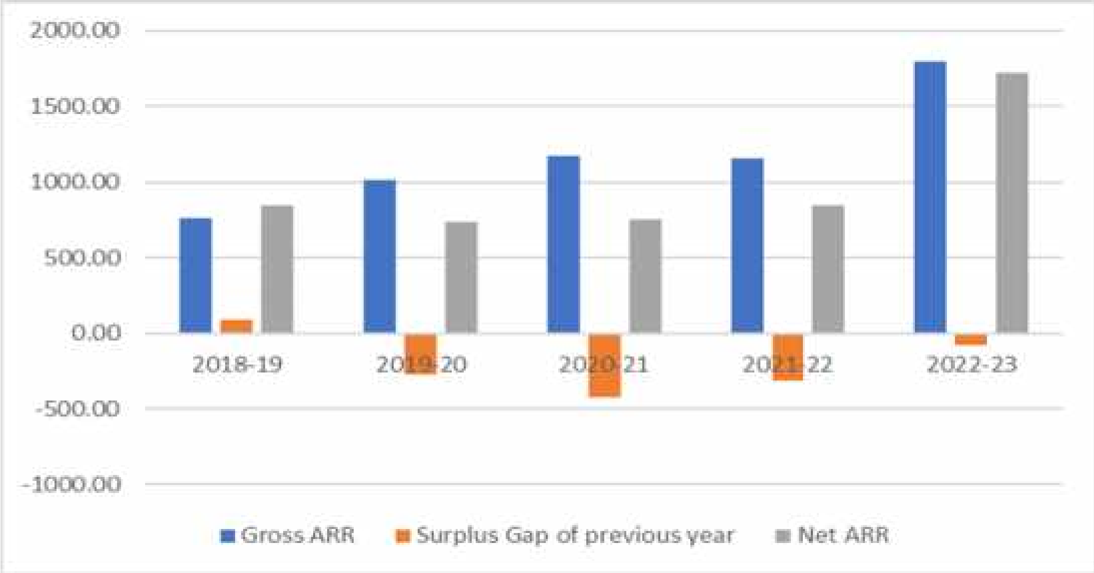
The Commission, accordingly, has approved **revenue surplus** of Rs.67.54 Crore in truing-up for FY 2022-23 as detailed in the table above.

The Regulation 13(f) of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021, specifies "*the revenue gap/surplus arising out of Truing up shall be considered by the Commission while determining the ARR of ensuing year(s). While approving adjustments towards revenue/expenses in future years, arising out of Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues*".

Accordingly, the revenue surplus of Rs.67.54 Crore arising out of the truing up for FY 2022-23 is adjusted in the ARR for FY 2024-25 along with applicable carrying cost.

The historical transmission charges for the period FY 2016-17 to FY 2021-22 (Trued-up ARRs) are as shown below:

Year	Gross ARR	Trued up (Surplus) Gap of previous year	Net ARR
2016-17	380.16	-74.12	306.04
2017-18	365.31	34.06	399.37
2018-19	760.84	85.09	845.93
2019-20	1014.95	-276.89	738.06
2020-21	1172.04	-421.28	750.76
2021-22	1160.35	-310.81	849.54
2022-23	1304.69	-140.87	1163.82


2000.00
1500.00
1000.00
500.00
0.00
-500.00
-1000.00
2018-19
2019-20
2020-21
2021-22
2022-23
Gross ARR
Surplus Gap of previous year
Net ARR

5. Annual Performance Review (APR) for FY 2023-24

5.1. Background

BSPTCL has filed the present petition dated 13th November, 2023, which includes Annual Performance Review (APR) for FY 2023-24.

The Commission in terms of Regulation 13 (d) of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021 has undertaken "Annual Performance Review (APR)" for FY 2023-24 on the basis of annual accounts for FY 2022-23 and revised estimates for FY 2023-24 submitted by the Petitioner.

5.2. Transmission Loss

Petitioner's submission

BSPTCL has submitted that transmission loss of 3.00% is considered for FY 2023-24 in review as approved in Tariff Order dated 25.03.2022 for each year of the control period FY 2022-23 to FY 2024-25. It is submitted that the actual transmission losses are at 2.60% during the period from April 2023 to August 2023 of FY 2023-24 as given in the table:

Table 5.1: Transmission Loss during April 2023 to August 2023

Sl. No.	Particulars	FY 2023-24 (April'23 to Sept'23)
1	Total Energy delivered by generating stations and inter-State/Intra-State tie links at the interface points of the Intra-State Transmission System – As received from Energy Accounting (MU)	19777.35
2	Sum of all the energy delivered to the state Distribution System – From energy meter readings in GSS (MU)	19262.62
3	Transmission loss in system (MU) (1-2)	514.72
4	Transmission loss in (Transco) system (%) ((3/1)x100)	2.60%

BSPTCL has requested to approve transmission loss of 3.00% for FY 2023-24 as approved in the MYT order dated 25.03.2022 and actual Transmission Losses shall be claimed at the time of Truing-up.

Table 5.2: Transmission Loss Trajectory Projected by the Petitioner

Particulars	Approved for FY 2023-24 in Tariff order dated 25.03.2022	Projected for FY 2023-24 (RE)
Transmission Loss	3.00%	3.00%

Commission analysis:

The Commission had approved the transmission loss trajectory at 3.00% for each year of the control period FY 2022-23 to FY 2024-25 in the Multi Year Tariff Order dated 25.03.2022.

The Commission accordingly, considers the transmission loss trajectory at 3.00% for FY 2023-24 in review.

5.3. Capital Investment Plan

Petitioner's submission:

BSPTCL has submitted capital investment and capitalisation plan for FY 2023-24 is projected based on the current status of all ongoing project. BSPTCL has submitted that capital investment plan for the new projects to be taken up from FY 2022-23 to FY 2024-25 has been submitted vide Case no.17/2023 for approval of the Commission.

Details of the projects expected to be completed and capitalised during FY 2023-24 is provided in Annexure-III submitted along with the petition.

BSPTCL has estimated capital expenditure of Rs.1247.69 Crore and capitalization of Rs.3070.52 Crore and furnished the status of CWIP for FY 2023-24 as given in the table below:

Table 5.3: Projected Capital Expenditure and Capitalization for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	Opening CWIP (A)	2980.06	3426.34
2	Investment during the Year (B)	803.63	1247.69
3	Less: Capitalization (excluding IDC) (C)	2311.51	3070.52
4	Less: IDC (C)		--
5	Closing CWIP (A+B-C-D)	1472.18	1603.51

Commission's analysis:

The Commission has approved closing CWIP of Rs.3426.34 Crore in truing up for FY 2022-23 and the same is considered as opening CWIP for FY 2023-24.

BSPTCL has furnished the list of schemes/works in Annexure-III. According to the work-wise statement (Annexure-III), BSPTCL has projected capital expenditure of Rs.1247.69 Crore and capitalisation of Rs.3070.52 Crore towards transmission system development with addition of substations (220/132/33 KV and 132/33 KV level), lines (220 KV, 132 KV and 33 KV level), bays (220 KV, 132 KV and 33 KV level), augmentation of transformer capacities and other associated/related equipment, works, etc. for FY 2023-24 under 12th plan, 13th plan and New projects/works as given in the table below.

Table 5.4: Capex and capitalisation projected by BSPTCL for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Name of the scheme	Capex	Capitalisation	IDC	Total capitalisation
	12th Plan (ongoing projects)				
1	State Plan	0.47	0.98		0.98
2	ADB Schemes		4.05		4.05
3	BRGF	0.31			
	Sub-Total – A	**0.78**	**5.03**	**0**	**5.03**
	12th Plan (old projects)				
4	State Plan	11.87	67.74		67.74
5	BRGF	0.61			
	Sub-Total – B	**12.48**	**67.74**	**0**	**67.74**
	13th Plan (upcoming projects)				
6	State Plan	7.96	63.84		63.84
	Sub-Total – C	**7.96**	**63.84**	**0**	**63.84**
	13th Plan (other projects)				
7	BRGF Schemes	94.62	34.6		34.6
8	State Plan	471.55	2109.5		2109.5
9	IRF schemes	31.79	83.11		83.11
10	Deposit schemes	22.19	106.18		106.18
11	ADB		0.72		0.72
	Sub-Total – D	**620.15**	**2334.11**	**0**	**2334.11**
	New projects				
12	State Plan	89.36	61.54		61.54
13	IRF schemes	102.23			
14	Spl central funded scheme	363.81	385.34		385.34
15	Deposit schemes	10.86	10.86		10.86
16	ADB		0.61		0.61
	Sub-Total – E	**566.26**	**458.35**	**0**	**458.35**
17	**Others - F**	**40.06**	**141.45**		**141.45**
	Total (A+B+C+D+E+F)	**1247.69**	**3070.52**	**0**	**3070.52**

It is observed from the half year accounts for the period from 1st April 2023 to 30th September 2023 submitted by the petitioner in response to BERC letter dated 27.11.2023 that the capex incurred is Rs.127.79 Crore and capitalisation is almost nil.

The Commission vide letter no. BERC-Tariff Case No.25/2023/11 dated 03.01.2024, directed BSPTCL to justify the proposed capex and capitalisation for FY 2023-24 duly furnishing the work-wise status/progress along with value (to end of November 2023) along with documentary evidence.

BSPTCL vide letter no.03 dated 10.01.2024 has submitted that it has estimated the capex and capitalisation based on the work schedule, physical progress and target completion dates. It is further stated that all expenses are booked only after receiving /acceptance of the invoices from the respective contractors which shall be raised before the end of the financial year as per the schedule of work completion/terms of payment. Therefore, the amount booked in the accounts upto 30.09.2023 may not be reflective of the actual progress of the projects. All the scheme wise capex shall be reconciled with the invoices raised by the end of FY 2023-24 along with physical progress status and shall be booked in the accounts. BSPTCL estimates that it shall be able to achieve the projected capex/capitalisation plan for the year and requested to allow the capex and capitalisation as proposed subject to claiming variation in capex and capitalisation in truing up of the respective years.

The submissions made by BSPTCL are un tenable, instead of what is stated, they should have submitted the physical progress of each of the scheme along with value of work completed and documentary evidence.

The capex and capitalisation in respect of ongoing schemes under 12th plan and 13th plan is considered as estimated by the petitioner for FY 2023-24.

BSPTCL has estimated Capex of Rs.282.62 Crore relating to one (1) scheme Reconductoring work of 02 Nos. 220 KV & 06 Nos. 132 KV Transmission Line with HTLS Conductor NIT 18/PR/BSPTCL/2023 under Spl. Central funded scheme and the entire capex of the scheme is proposed to be capitalised during FY 2023-24 itself. Transmission lines/SS have gestation period, as such the capex of the scheme is considered, however, capitalisation is not considered for FY 2023-24.

The Commission provisionally considers the scheme-wise capital investment and capitalisation for FY 2023-24 in review as given below:

Table 5.5: Scheme wise Capex and capitalisation considered for FY 2023-24

(Rs. Crore)

Sl. No.	Name of the scheme	Estimated by BSPTCL for FY 2023-24		Considered in review for FY 2023-24	
		Capex	Capitalisation	Capex	Capitalisation
	12th Plan (ongoing projects)				
1	State Plan	0.47	0.98	0.47	0.98
2	ADB Schemes		4.05		4.05
3	BRGF	0.31		0.31	
	Sub-Total – A	**0.78**	**5.03**	**0.78**	**5.03**
	12th Plan (old projects)				
4	State Plan	11.87	67.74	11.87	67.74
5	BRGF	0.61		0.61	
	Sub-Total – B	**12.48**	**67.74**	**12.48**	**67.74**
	13th Plan (upcoming projects)				
6	State Plan	7.96	63.84	7.96	63.84
	Sub-Total – C	**7.96**	**63.84**	**7.96**	**63.84**
	13th Plan (other projects)				
7	BRGF Schemes	94.62	34.60	94.62	34.60
8	State Plan	471.55	2109.50	471.55	2109.50
9	IRF schemes	31.79	83.11	31.79	83.11
10	Deposit schemes	22.19	106.18	22.19	106.18
11	ADB		0.72		0.72
	Sub-Total – D	**620.15**	**2334.11**	**620.15**	**2334.11**
	New projects				
12	State Plan	89.36	61.54	89.36	61.54
13	IRF schemes	102.23		102.23	
14	Spl central funded scheme	363.81	385.34	363.81	102.72
15	Deposit schemes	10.86	10.86	10.86	10.86
16	ADB		0.61		0.61
	Sub-Total – E	**566.26**	**458.35**	**566.26**	**175.73**
17	**Others - F**	**40.06**	**141.45**	**40.06**	**141.45**
	Total (A+B+C+D+E+F)	**1247.69**	**3070.52**	**1247.69**	**2787.90**

Funding of projects under 12th Plan is considered in Debt Equity ratio of 70:30 and the State plan projects under the 13th Plan are funded through 80% Debt and 20% Equity and as per regulations actual equity and debt is considered. Capitalisation of other scheme (3x180MVA, 132KV GIS GSS Mithapur & 132 KV Tr. line from GSS Mithapur to GSS Karbigahia NIT No.38/PR/BSPTCL/2021) is considered through IRF funding and is considered through Debt as considered in truing up of earlier years.

The scheme wise Debt Equity of the projects projected to be capitalized during FY 2023-24 is shown in the Table below:

Table 5.6: Scheme wise source of funding of capitalisation considered for FY 2023-24

(Rs. Crore)

Sl. No.	Name of the scheme	Capex	Capitalisation	Equity	Loan	Grant
	12th Plan (ongoing projects)					
1	State Plan	0.47	0.98	0.29	0.69	
2	ADB Schemes		4.05		4.05	
3	BRGF	0.31				
	Sub-Total – A	**0.78**	**5.03**	**0.29**	**4.74**	**0.00**
	12th Plan (old projects)					
4	State Plan	11.87	67.74	20.32	47.42	
5	BRGF	0.61				
	Sub-Total – B	**12.48**	**67.74**	**20.32**	**47.42**	**0.00**
	13th Plan (upcoming projects)					
6	State Plan	7.96	63.84	12.77	51.07	
	Sub-Total – C	**7.96**	**63.84**	**12.77**	**51.07**	**0.00**
	13th Plan (other projects)					
7	BRGF Schemes	94.62	34.60	6.92	27.68	
8	State Plan	471.55	2109.50	421.90	1687.60	
9	IRF schemes	31.79	83.11		83.11	
10	Deposit schemes	22.19	106.18			106.18
11	ADB		0.72		0.72	
	Sub-Total – D	**620.15**	**2334.11**	**428.82**	**1799.11**	**106.18**
	New projects					
12	State Plan	89.36	61.54	12.31	49.23	
13	IRF schemes	102.23			0.00	
14	Spl central funded scheme	363.81	102.72	30.82	71.90	
15	Deposit schemes	10.86	10.86			10.86
16	ADB		0.61		0.61	
	Sub-Total – E	**566.26**	**175.73**	**43.12**	**121.75**	**10.86**
17	**Others – F**	**40.06**	**141.45**		141.45	
	Total (A+B+C+D+E+F)	**1247.69**	**2787.90**	**505.33**	**2165.53**	**117.04**

Table 5.7:Debt Equity considered for FY 2023-24

(Rs. Crore)

Particulars	Amount
Capitalization during FY 2023-24	2787.90
Less: Grant / Deposit Works	117.04
Net Capitalization	2670.86
Equity considered	505.33
Debt Considered	2165.53

The Commission accordingly, has provisionally considered capital investment and capitalisation of capital expenditure/transferred to fixed assets i.e. GFA based on the capital investment considered for FY 2023-24 in review as given in the Table below:

Table 5.8: CWIP and Capitalisation considered for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered in review for FY 2023-24
1	Opening CWIP	2980.06	3426.34	3426.34
2	Add: Investment during the Year	803.63	1247.69	1247.69
3	Less: Capitalization	2311.51	3070.52	2787.90
4	**Closing CWIP (1+2-3)**	**1472.18**	**1603.51**	**1886.13**

5.4. Gross Fixed Assets

Petitioner's submission:

BSPTCL has projected GFA for FY 2023-24 as detailed in the Table below:

Table 5.9: Gross Fixed Assets projected for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	**Opening GFA**	12429.21	12101.28
2	Additions during the year	2311.51	3070.52
3	**Closing GFA (1+2)**	**14740.72**	**15171.79**

Commission's analysis

The Commission has approved closing GFA at Rs.12101.28 Crore for FY 2022-23 in true up and the same is considered as opening GFA for FY 2023-24. Addition to the GFA during FY 2023-24 is considered as deliberated in paragraph 5.3 above.

The Commission, accordingly considers the opening GFA, addition to GFA (capitalisation) and closing GFA for FY 2023-24 in review as given in the Table below:

Table 5.10: Gross Fixed Assets considered in review for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered in review for FY 2023-24
1	**Opening GFA**	12429.21	12101.28	12101.28
2	Additions during the year	2311.51	3070.52	2787.90
3	**Closing GFA (1+2)**	**14740.72**	**15171.79**	**14889.18**

5.5. Depreciation

Petitioner's submission

BSPTCL has projected the depreciation for FY 2023-24 (RE) as detailed in the Table below:

Table 5.11: Depreciation projected for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 21.03.2023	Estimated by BSPTCL for FY 2023-24 (RE)
1	**Opening depreciable assets**	**10960.69**	**10567.53**
2	Additions during the year	2311.51	3070.52
3	**Closing depreciable assets (1+2)**	**13272.20**	**13638.05**
4	Weighted average rate of depreciation on opening GFA	4.55%	5.23%
5	Weighted average rate of depreciation on addition during the year	2.77%	2.65%
6	Depreciation (1*4)+(2*5)	562.79	634.49
7	Opening Grants	2105.33	2117.35
8	Grants during the year	469.21	117.04
9	**Total Grants (7+8)**	**2574.54**	**2234.39**
10	Weighted average rate of depreciation on opening Grant	4.55%	5.23%
11	Weighted average rate of depreciation on addition during the year	2.77%	2.65%
12	Depreciation on assets created out of grants (7*10)+(8*11)	108.80	113.92
13	**Net Depreciation considered (6-12)**	**453.99**	**520.57**

Commission's analysis

The Commission has approved closing depreciable assets at Rs.10622.28 Crore in truing up for FY 2022-23 and the same is considered as opening depreciable assets in review for FY 2023-24.

The Commission has considered the weighted average rate of depreciation at 5.09% on opening depreciable assets and 2.65% on depreciable assets addition in truing up for FY 2022-23 and the same weighted average rate of depreciation is considered for FY 2023-24 in review.

The Commission has approved closing value of Grants at Rs.2117.35 Crore in the true up for FY 2022-23, accordingly, the same is considered as opening Grants in review for FY 2023-24. Addition to grants is considered at Rs.117.04 Crore based on source of funding of capitalisation considered for FY 2023-24.

The opening value of depreciable assets, additions and closing depreciable assets vis-à- vis the Grants considered by the Commission and proportionate depreciation on assets created out of Grants and depreciation on GFA is given in the Table below:

Table 5.12: Depreciation considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 21.03.2023	Estimated by BSPTCL for FY 2023-24 (RE)	Considered in review for FY 2023-24
1	**Opening depreciable assets**	**10960.69**	**10567.53**	**10622.28**
2	Additions during the year	2311.51	3070.52	2787.90
3	**Closing depreciable assets (1+2)**	**13272.20**	**13638.05**	**13410.18**
4	Weighted average rate of depreciation on opening GFA	4.55%	5.23%	5.09%
5	Weighted average rate of depreciation on addition during the year	2.77%	2.65%	2.65%
6	Depreciation (1x4)+(2x5)	562.79	634.49	614.55
7	Opening Grants	2105.33	2117.35	2117.35
8	Grants during the year	469.21	117.04	117.04
9	**Total Grants (7+8)**	**2574.54**	**2234.39**	**2234.39**
10	Weighted average rate of depreciation on opening Grant	4.55%	5.23%	5.09%
11	Weighted average rate of depreciation on addition during the year	2.77%	2.65%	2.65%
12	Depreciation on assets created out of grants (7x10)+(8x11)	108.80	113.92	110.87
13	**Net Depreciation (6-12)**	**453.99**	**520.57**	**503.68**

The Commission, accordingly, considers depreciation in review for FY 2023-24 as detailed in the table above.

5.6. Interest on Loans

Petitioner's Submission

The Petitioner has submitted that interest on loans is projected in accordance with the Regulation 24 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021. Normative opening loan for FY 2023-24 is considered based on the closing loan balance approved for FY 2022-23 in truing up. Addition to loan during the year is considered based on funding pattern of capitalisation. Repayment of loans is considered equivalent to depreciation for FY 2023-24 in accordance with the Regulations. The weighted average rate of interest has been considered at 8.56% as given hereunder.

Sl. No.	Particulars	Amount of loan outstanding (Rs. Crore)	Applicable Interest rate
1	Loans from Financial Institutions	3200.00	7.85%
2	Loans from ADB	464.13	13.00%
Weighted Average Interest Rate			**8.56%**

BSPTCL has projected the interest and other finance charges for FY 2023-24 in review as detailed in the Table below:

Table 5.13: Projected Interest on Loan for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 21.03.2023	Estimated by BSPTCL for FY 2023-24 (RE)
1	Opening loan balance	4670.62	4325.77
2	Additions during the year	1482.56	2296.00
3	Repayment	453.99	520.57
4	Closing Loan (1+2-3)	5699.19	6101.20
5	Average Loan {(1+4)/2}	5184.91	5213.48
6	Interest rate	7.87%	8.56%
7	Interest & Finance Charges (5*6)	408.05	446.44
8	Finance Charges	0.16	1.04
9	Total interest and finance charges	408.21	447.48

Commission's analysis

The Commission has approved closing normative loan at Rs.4339.92 Crore in truing up for FY 2022-23 and the same is considered as opening normative loan in review for FY 2023-24.

The Commission, in terms of Regulations 24, has considered loan addition based on source of funding of capitalisation during FY 2023-24 as given in Table 5.6 above. The repayment is considered equivalent to depreciation considered for FY 2023-24. The capitalisation and funding of capitalisation for FY 2023-24 is shown hereunder:

Capitalisation

Sl. No.	Particulars	FY 2023-24
1	Capitalisation during the year	2787.90
2	Less: Grants	117.04
3	Net capitalisation	2670.86
4	Equity	505.33
5	Debt	2165.53

The Commission has considered the rate of interest provisionally at 8.22% for FY 2023-24 in line with the rate of interest considered in true up for FY 2022-23.

Other finance charges are considered at Rs.1.04 Crore for FY 2023-24 as was approved based on the actual expenses reported through audited accounts in truing up for FY 2022-23.

The Commission, accordingly, has considered interest for FY 2023-24 in review as detailed in the Table below:

Table 5.14: Interest & finance charges considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 21.03.2023	Estimated by BSPTCL for FY 2023-24 (RE)	Considered in review for FY 2023-24
1	Opening loan balance	4670.62	4325.77	4339.92
2	Additions during the year	1482.56	2296.00	2165.53
3	Normative Repayment	453.99	520.57	503.68
4	Closing Loan (1+2-3)	5699.19	6101.20	6001.76
5	Average Loan {(1+4)/2}	5184.91	5213.48	5170.84
6	Interest rate	7.87%	8.56%	8.22%
7	**Interest & Finance Charges (5 * 6)**	**408.05**	**446.44**	**424.82**
8	other finance charges	0.16	1.04	1.04
9	**Total interest and finance charges (7+8)**	**408.21**	**447.48**	**425.86**

The Commission accordingly, considers interest & finance charges for FY 2023-24 in review as detailed in the table above.

5.7. Return on Equity

Petitioner's submission:

BSPTCL has submitted that it has considered closing equity balance of FY 2022-23 as opening equity balance for FY 2023-24.

Regulation 22 read with Regulation 27 has considered rate of return on equity on pre-tax basis.

BSPTCL had proposed Rate of Return at 10% for FY 2023-24 and stated that claiming of lower RoE shall not imply and continue to claim RoE at 10% in perpetuity and at liberty to claim RoE at lower rate or in accordance with the applicable regulations. BSPTCL has considered MAT rate of 17.47%, in line with the actual MAT rate of FY 2022-23 and computed pre-tax RoE of 12.12% (10.00%/ (1-17.47%)).

The Petitioner has projected the Return of Equity for FY 2023-24 in review as given in the table below:

Table 5.15: Return on Equity projected for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 21.03.2023	Estimated by BSPTCL for FY 2023-24 (RE)
1	Opening Equity as on 1.4.2015	375.41	375.41
2	Rate of Return on Equity	10.00%	10.00%
3	Tax/MAT rate %	17.47%	17.47%
4	Rate of Return on Equity (Pre-tax)	12.12%	12.12%
5	Return on Equity (1*4)	45.50	45.49
	Equity on projects commissioned w.e.f. 1.4.2015		
6	Opening Equity	1974.55	1946.73
7	Addition during the year	359.74	657.48
8	Closing Equity (6+7)	2334.29	2604.21
9	Average Equity	2154.42	2275.47
10	Rate of Return on Equity	10.00%	10.00%
11	Tax/MAT rate %	17.47%	17.47%
12	Rate of Return on Equity (Pre-tax)	12.12%	12.12%
13	Return on Equity (9*12)	261.12	275.72
14	**Total Return on Equity (5+13)**	**306.61**	**321.21**

Commission's analysis:

The Commission has considered the closing equity of Rs.375.41 Crore as on 31st March 2015 (approved in the true up for FY 2014-15) in respect of assets capitalised before 31st March 2015.

In respect of projects commissioned with effect from 1st April 2015, the opening equity is considered at Rs.1937.20 Crore based on the closing equity approved in true up for FY 2022-23. The addition to equity during FY 2023-24 is considered at Rs.495.06 Crore as approved in Table 5.6 above.

The Commission has considered rate of return at 10% as approved for FY 2023-24 in Tariff Order dated 25.03.2022. Further, in accordance with regulation 27 (2) has considered effective tax rate at 17.47% on RoE being MAT at 15%+surcharge at 12% on MAT plus HESC at 4% on Tax+Surcharge in review for FY 2023-24 as per the applicable tax rates.

The Commission, accordingly, has considered Return on Equity for FY 2023-24 in review as detailed in the Table below:

Table 5.16: Return on Equity considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 21.03.2023	Estimated by BSPTCL for FY 2023-24 (RE)	Considered in review for FY 2023-24
1	Equity as on 31.03.2015	375.41	375.41	375.41
2	Rate of Return on Equity	10.00%	10.00%	10.00%
3	Tax/MAT rate %	17.47%	17.47%	17.47%
4	Pre-tax Rate of return on equity (2/ (1-3)	12.12%	12.12%	12.12%
5	Return on Equity (1*4)	45.50	45.49	45.50
	Equity on projects commissioned w.e.f. 1.4.2015			
6	Opening equity	1974.55	1946.73	1937.20
7	Addition during the year	359.74	657.48	505.33
8	Closing Equity (6+7)	2334.29	2604.21	2442.53
9	Average equity (6+8)/2	2154.42	2275.47	2189.87
10	Rate of Return on Equity	10.00%	10.00%	10.00%
11	Tax/MAT rate %	17.47%	17.47%	17.47%
12	Pre-tax Rate of return on equity (10/ (1-11)	12.12%	12.12%	12.12%
13	Return on Equity (9*12)	261.12	275.72	265.41
14	**Total Return on Equity (5+13)**	**306.61**	**321.21**	**310.91**

The Commission accordingly considers Return on Equity for FY 2023-24 in review as detailed in the table above.

5.8. Operation and Maintenance (O&M) Expenses

5.8.1. Employee Expenses

Petitioner's submission:

BSPTCL has submitted that it has considered the employee norm determined by the Commission in previous Tariff order as given in the table below:

Table 5.17: Base value norms for Employee Expenses

Sl. No.	Particulars	FY 2023-24
1	Number of personnel per Ckt/km (55%)	0.0823
2	Number of personnel per substation (45%)	7.2218
3	Annual expenses per personnel (Rs. Lakh)	7.3525

BSPTCL has submitted that it has considered the base norms for computation of employee expenses for FY 2023-24.

BSPTCL has estimated Transmission Line in Ckt. KM, number of sub-stations for FY 2023-24 as given below.

Table 5.18: Transmission Line, No. of sub-stations and Number of Employees for FY 2023-24

Sl. No.	Particulars	FY 2023-24 (Estimated)
1	Transmission Line in Ckt. Km	17,312
2	No. of sub-stations	153
3	Number of employees	2,211

Based on the above parameters and the base values has estimated employee expenses for FY 2023-24 with CPI inflationary index increase of 5.40% for consideration of employee expenses.

Table 5.19: CPI Inflation considered for FY 2023-24

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24 (Estimate)
Annual Average CPI Index	323	339	356	378	
CPI Inflation		5.02%	5.13%	6.05%	
Average CPI inflation for last three years					**5.40%**

BSPTCL accordingly has estimated the employee expenses adopting CPI inflationary index on the base norm of employee expense and considering the transmission lines, no. of substations and no. of employees for FY 2023-24 in accordance with Regulation 21.1 as given below:

Table 5.20: Employee Expenses estimated for FY 2023-24

Sl. No.	Particulars	Base Norms	Approved in Tariff order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	CPI Inflation		5.89%	5.40%
2	Norms-Number of personnel per ckt. Km	0.082	0.0823	0.0823
3	Norms-Number of personnel per substation	7.222	7.222	7.2218
4	Transmission line length in ckt. Km		16608	17312
5	No. of Sub-stations		150	153
6	Norms-Annual expenses per personnel (Rs. lakh)	9.352	9.900	9.858
7	Employee cost (Number of personnel per ckt. km) (2*4*6)/100 (Rs. Crore)		135.36	140.45
8	Employee cost (Number of personnel per substation) (3*5*6)/100 (Rs. Crore)		107.28	108.92
9	**Total Employee cost for the year (7+8) (Rs. Crore)**		**242.64**	**249.37**

Commission's analysis:

Regulation 21.1 read with regulation 21 specifies that the Commission shall stipulate a separate trajectory of norms for employee expenses in terms of number of personnel per Ckt/km, number of personal per bay and annual expenses per personnel.

The Commission, in terms of regulation 21 had determined the norm for employee expenses in the Table 6.22 of the Tariff Order dated 21.03.2023 as given below:

Particulars	Base Value
No. of personnel per Ckt KM	0.0823
No. of personnel per SS	7.2218
Annual expenses per personnel (Rs. Crore)	0.08832

Regulation 21(g) specifies that the norms determined at constant prices of base year shall be escalated on account of inflation.

The Commission has examined the computation of the average increase in the Consumer Price Index (CPI) for the immediately preceding three years claimed by the petitioner and found correct. The Commission, accordingly has considered average increase in the Consumer Price Index (CPI) 5.40% and inflated the base Annual expenses per personnel to arrive the normative Annual expenses per personnel for FY 2023-24. The normative annual expenses per personnel approved in true up for FY 2022-23 is at Rs.9.352 lakhs/per employee and the same is considered as based norm and further considered inflationary increase of 5.40% for estimating the employee expenses for FY 2023-24.

The petitioner has furnished the details of total number of personnel, total no. of substations and total length of lines in Ckt KM for FY 2023-24.

The Commission considering the above has computed the employee expenses with inflationary indexation of 5.40% for FY 2023-24 as detailed in the Table below:

Table 5.21: Employee expenses considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Base Norm	Projected by BSPTCL for FY 2023-24 in review	Considered in review for FY 2023-24
1	Average annual CPI index		5.40%	5.40%
2	Norms-Number of personnel per Ckt/KM	0.0823	0.0823	0.0823
3	Norms-Number of personnel per substation	7.2218	7.2218	7.2218
4	Transmission line in Ckt KM		17312	17312
5	No. of substations		153	153

Sl. No.	Particulars	Base Norm	Projected by BSPTCL for FY 2023-24 in review	Considered in review for FY 2023-24
6	Norms-Annual expenses per personnel (Rs. lakh)	9.352	9.858	9.857
7	Employee cost (Number of personnel per Ckt/KM basis) (2*4*6)/100 (Rs. Crore)		140.45	140.44
8	Employee cost (Number of personnel per substation basis) (3*5*6)/100 (Rs. Crore)		108.92	108.92
9	**Total Employee cost for the year (7+8) (Rs. Crore)**		**249.37**	**249.36**

The Commission approves employee cost for FY 2023-24 in review as detailed in the table above.

5.8.2. Repairs and Maintenance (R&M) Expenses

Petitioner's submission:

BSPTCL has submitted that regulation 21.2 specifies R&M expenses as percentage of opening gross fixed assets (excluding land cost) for estimation of R&M expenses. The Commission determined 'K factor' at 0.70% for the Control Period from FY 2022-23 to FY 2024-25. BSPTCL has considered 'K factor' of 0.70% and applied the same on the Opening GFA (net of Land) and estimated the R&M expenses for FY 2023-24 as given in the table below:

Table 5.22: Repairs and Maintenance expenses estimated for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	Opening GFA	10960.69	10567.53
2	% of GFA	0.70%	0.70%
3	Base R&M expenses	**76.72**	**73.97**

Commission's analysis

The Commission, in terms of regulation 21 (b) had determined 'K' factor at 0.70% for the control period FY 2022-23 to FY 2024-25. Accordingly, the same is considered and R&M expenses computed, as per the formula specified in regulation 21.2 in review for FY 2023-24 as detailed in the table below:

Table 5.23: R&M expenses considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
1	Opening GFA	10960.69	10567.53	10622.28
2	% of GFA	0.70%	0.70%	0.70%
3	R&M expenses considered	**76.72**	**73.97**	**74.36**

The Commission, accordingly, considers R&M expenses in review for FY 2023-24 as detailed in the table above.

5.8.3. Administrative and General (A&G) Expenses

Petitioner's submission

BSPTCL has submitted that the Commission has determined the norms for A&G expenses in terms of A&G expense per personnel and A&G expense per substation as shown hereunder

Table 5.24: Base value of A&G expense norm

Sl. No.	Particulars	Norm (Rs. In lakhs)
1	A&G Expenses per personnel	1.0977
2	A&G Expenses per sub-station	14.4182

BSPTCL has considered the above norms for computation of A&G expenses for FY 2023-24. BSPTCL has considered the estimated number of sub-stations and number of employees for projecting A&G expenses for FY 2023-24. BSPTCL, in terms of regulation 21.3, has considered average escalation in CPI and WPI indices of immediately preceding three years for consideration of escalation of base norm for A&G expenses as given below:

Table 5.25: CPI: WPI Inflation considered for FY 2023-24

Particulars	2019-20	2020-21	2021-22	2022-23	2023-24 (Estimate)
Annual Average CPI Index	323	339	356	378	
CPI Inflation		5.02%	5.13%	6.05%	5.40%
Annual Average WPI Index	122	123	139	153	
WPI Inflation		1.29%	13.00%	9.41%	7.90%
WPI: CPI (60:40)					6.90%

BSPTCL has computed the A&G expenses adopting the A&G expense norm per personnel and per substation with inflation rate of 6.90% on base norms for FY 2023-24 as given in the table below.

Table 5.26: A&G Expenses estimated for FY 2023-24

Sl. No.	Particulars	Base Value	Approved in Tariff order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	Average annual WPI & CPI Index		5.89%	6.90%
2	Norms-A&G Expenses per personnel	1.0977	1.1590	1.1735
3	Norms-A&G Expenses per substation (Rs. Lakh)	14.4182	15.2180	15.4130
4	No. of Employees		2200	2211
5	No. of Sub-stations		150	153
6	A&G Expenses (No. of employees) (2*4) (Rs. Crore)		25.49	25.95
7	A&G Expenses (No of substations) (3*5) (Rs. Crore)		22.83	23.58
8	**Total A&G Expenses for the year (Rs. Crore) (6+7)**		**48.32**	**49.53**

Commission's analysis:

The Commission had determined the norm for A&G expenses in the Table 6.28 of the Tariff Order dated 25.03.2022 as given below:

Particulars	Base Value
Norm - A&G expense per personnel (Rs. Crore)	1.0104
Norm - A&G expense per SS (Rs. Crore)	13.6600

Regulation 21.3 specifies that A&G expense shall be computed as per the norm escalated by Wholesale Price index (WPI) and Consumer Price Index (CPI) in the ratio of 60:40 based on the immediately preceding three years. The Commission has computed the weighted average increase in the WPI and CPI for the immediately preceding three years as given hereunder.

Particulars	2019-20	2020-21	2021-22	2022-23
Annual Average CPI Index	322.50	338.69	356.06	377.62
CPI Inflation		5.02%	5.13%	6.05%
Annual Average WPI Index	121.80	123.38	139.41	152.53
WPI Inflation		1.29%	13.00%	9.41%
Average WPI: CPI (60:40) Inflation for preceding three years				**6.90%**

Accordingly, the Commission has considered the weighted average increase in the WPI CPI at 6.90% and inflated the base Annual A&G expenses per personnel and per substation to arrive the normative Annual A&G expenses for FY 2023-24.

The normative A&G expenses per personnel approved in true up for FY 2022-23 is at Rs.14.418 lakhs/per personnel and A&G expenses for SS is at Rs.1.040 lakh/SS and the same is considered as based norm and further considered inflationary increase of 6.90% for estimating the A&G expenses for FY 2023-24.

The Commission, provisionally, considers the total number of personnel and total no. of substations for FY 2023-24 as projected by the Petitioner.

The Commission considering the above has computed the A&G expenses with inflationary indexation of 6.90% for FY 2023-24 as detailed below:

Table 5.27: A&G Expenses considered for FY 2023-24 in review

Sl. No.	Particulars	Base Value	Approved in Tariff order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
1	Average annual WPI & CPI Index		5.89%	6.90%	6.90%
2	Norms-A&G Expenses per personnel	1.0400	1.1590	1.1735	1.173
3	Norms-A&G Expenses per substation (Rs. Lakh)	14.418	15.2180	15.4130	15.413
4	No. of Employees		2200	2211	2216
5	No. of Sub-stations		150	153	153
6	A&G Expenses (No. of employees) (2*4) (Rs. Crore)		25.49	25.95	25.95
7	A&G Expenses (No of substations) (3*5) (Rs. Crore)		22.83	23.58	23.58
8	**Total A&G Expenses for the year (Rs. Crore) (6+7)**		**48.32**	**49.53**	**49.53**

The Commission considers A&G expenses for FY 2022-23 in review as detailed in the table above.

5.8.4. Holding Company Expenses

Petitioner's submission

BSPTCL has estimated the holding company expenses for FY 2023-24 as furnished in table below:

Table 5.28: Expenses of Holding Company estimated for FY 2023-24

(Rs. Crore)

Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
Holding Company Expenses	16.40	16.08

Commission's analysis:

The Commission considers the Holding Company expenses for FY 2023-24 in review as estimated by the petitioner as given in the Table below:

Table 5.29: Holding Company Expenses approved for FY 2023.24 (RE)

(Rs. Crore)

Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
Holding Company expenses	16.40	16.08	16.08

The Commission considers holding company expenses for FY 2023-24 in review as detailed in the table above.

5.8.5. Summary of Operation and Maintenance (O&M) Expenses

Table 5.30: Total O&M expenses considered in review for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
1	Employee cost	242.64	249.37	249.36
2	R&M expenses	76.72	73.97	74.36
3	A&G Expenses	48.32	49.53	49.53
4	Holding company expenses	16.40	16.08	16.08
5	**Total O& M expenses**	**384.08**	**388.95**	**389.33**

The Commission considers O&M expenses for FY 2023-24 in review as detailed in the table above.

5.9. Non-Tariff Income

Petitioner's submission:

BSPTCL has submitted that non-tariff income for FY 2023-24 is estimated with escalation of 5% on actual non-tariff income of FY 2022-23 as per the methodology adopted by the Commission in previous Tariff Order and variation in non-tariff income shall be submitted at the time of true-up for FY 2023-24.

Table 5.31: Non-Tariff Income estimated for FY 2023-24

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	Non-Tariff Income of FY 2022-23	56.63	71.87
2	Escalation (%)	5%	5%
3	Increase	2.83	3.59
4	**Non-Tariff Income for the Year**	**59.46**	**75.46**

Commission's analysis:

BSPTCL has submitted that non-tariff income has been estimated for FY 2023-24 in review with escalation of 5% on the actual non-tariff income of FY 2022-23. The Commission has approved non-tariff income at Rs.71.88 Crore for FY 2022-23 in true up. The Commission accordingly has considered the nontariff income of Rs.71.88 Crore as base income and estimated the nontariff income for FY 2023-24 with escalation at 5% subject to true up based on audited accounts for FY 2023-24 as detailed in the Table below.

Table 5.32:Nontariff income considered for FY 2023-24 in review

(Rs. Crore)

Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
Non-tariff income approved in truing up for FY 2022-23	56.63	71.87	71.88
Escalation at 5%	5%	5%	5%
Increase	2.83	3.59	3.59
Non-tariff income	**59.46**	**75.46**	**75.47**

The Commission, accordingly, considers Nontariff income for FY 2023-24 in review as detailed above.

5.10. Income from other business

Petitioner's submission:

BSPTCL has submitted, the Commission vide order dated 20.10.2023 (Case No. 11 of 2023) has approved the OPGW Cable business and has also specified the sharing of two third of the amount of Gain from the other business be allowed to pass through as an adjustment in the tariff of the petitioner and the balance one third of the amount of such gain shall be on account of the petitioner and shall be liable to be utilised at the discretion of the petitioner, BSPTCL.

BSPTCL has stated that since gains from the OPGW cable business cannot be quantified with certainty at present, it has claimed sharing of gains derived from other business in the APR of FY 2023-24 on the basis of actual receipt of FY 2022-23. It is further submitted that it shall calculate the gains from OPGW business and claim the variation based on the audited figures in true-up for FY 2023-24.

BSPTCL has estimated the sharing of gains from other business (OPGW cable) at Rs.1.03 Crore in review for FY 2023-24.

Commission's analysis:

The Commission has approved sharing of lease rental income from leasing of OPGW cable at Rs.1.03 Crore for FY 2022-23 in true up. The Commission accordingly has considered the lease rental income from other business for FY 2023-24 subject to true up based on audited accounts for FY 2023-24 as detailed in the Table below.

Table 5.33:Sharing of income from other business considered for FY 2023-24 in review

(Rs. Crore)

Particulars	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
Sharing of Income from other business – lease rentals from OPGW cable	1.03	1.03

The Commission, accordingly, considers sharing of income from other business for FY 2023-24 in review as detailed in the table above.

5.11. Interest on working capital

Petitioner's submission:

BSPTCL has submitted that it has computed the working capital requirement according to applicable norms for transmission function provided in the regulation 26 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021 which are detailed in the following Table:

Table 5.34:Norms for working capital requirement

Sl. No.	Particulars	Norm
1	Receivables	Two months of transmission charges
2	O&M expenses	Equivalent to 1 month
3	Maintenance spares	@40% of R&M expenses for one month
	Less:	
4	Return on equity and contribution to contingency reserve	Equivalent to 2 months

The rate of interest applied on the estimated working capital is @10.05% as per SBI MCLR Rate (8.55%) of 1 year tenor plus 150 basis points.

BSPTCL has estimated interest on working for FY 2023-24 and computed based on the above norms as detailed in the Table below:

Table 5.35:: Interest on working capital estimated for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	Receivables equivalent to two (2) months of Transmission Charges	252.66	271.18
2	O&M Expenses of one month	32.01	32.41
3	Maintenance spares@40% of 1-month R&M expenses	2.56	2.47
4	**Less**: RoE and Contribution to Contingency Reserve for 2 months	51.10	53.53
	Total Working Capital	236.13	252.53
5	Interest on Working Capital (%)	9.55%	10.05%
6	**Interest on Working Capital**	**22.55**	**25.38**

Commission's analysis

The Commission has examined the computation of interest on working capital submitted by the Petitioner which is line with the norms provided in the regulation 26. Regulation 26 (b) specify the Rate of interest shall be equal to SBI 1 year MCLR as of the date on which petition is filed plus 150 basis points. The petitioner has filed the petition on 13.11.2023 and the SBI one (1) year MCLR w.e.f.15.11.2022 is at 8.55%. Accordingly, the rate of interest is considered at 10.05% (SBI MCLR of 8.55% plus 150 basis points (i.e.1.50%)) for computation of interest on working capital for FY 2023-24. The maintenance spares are considered at 40% of 1 month R&M expenses and reduced Return on Equity amount equivalent to two months as specified in the regulations for the purpose of computing working capital requirement and interest on working capital as given in the Table below:

Table 5.36: Interest on working capital considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
1	Receivables equivalent to two (2) months of Transmission Charges	252.66	271.18	263.00

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
2	O&M Expenses of one month	32.01	32.41	32.44
3	Maintenance spares@40% of 1-month R&M expenses	2.56	2.47	2.48
4	**Less**: RoE and Contribution to Contingency Reserve for 2 months	51.10	53.53	51.82
	Total Working Capital	**236.13**	**252.53**	**246.11**
5	Interest on Working Capital (%)	9.55%	10.05%	10.05%
6	**Interest on Working Capital**	**22.55**	**25.38**	**24.73**

The Commission considers interest on working capital in review for FY 2023-24 as detailed in the table above.

5.12. Annual Transmission charges

Petitioner's submission

BSPTCL has submitted that the ARR for transmission business is computed by aggregating all the expenses less non-tariff income for FY 2023-24 as given in the Table below:

Table 5.37: Estimated Annual Transmission Charges/ (ARR) for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	**O&M expenses (a+ b+ c+ d)**	384.08	388.95
	a. Employee cost	242.64	249.37
	b. R&M expenses	76.72	73.97
	c. A&G Expenses	48.32	49.53
	d. Holding Company expenses	16.40	16.08
2	Interest and finance charges	408.21	447.48
3	Interest on working capital	22.55	25.38
4	Depreciation	453.99	520.57
5	Return on Equity	306.62	321.21
6	Less: Non-tariff income	59.46	75.46
7	Less: Sharing of income from other business (OPGW Cable)	--	1.03
8	**ARR for the year**	**1515.98**	**1627.10**

Commission's analysis:

Based on the Commission's detailed analysis, the Aggregate Revenue Requirement/ annual fixed charges/Transmission charges considered by the Commission for FY 2023- 24 (RE) are as detailed in the Table below:

Table 5.38: ARR considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered for FY 2023-24 in review
1	**O&M expenses (a+ b+ c+ d)**	384.08	388.95	389.33
	a. Employee cost	242.64	249.37	249.36
	b. R&M expenses	76.72	73.97	74.36
	c. A&G Expenses	48.32	49.53	49.53
	d. Holding Company expenses	16.40	16.08	16.08
2	Interest and finance charges	408.21	447.48	425.86
3	Interest on working capital	22.55	25.38	24.73
4	Depreciation	453.99	520.57	503.68
5	Return on Equity	306.62	321.21	310.91
6	Less: Non-tariff income	59.46	75.46	75.47
7	Less: Sharing of income from other business (OPGW Cable)	--	1.03	1.03
8	**ARR for the year**	**1515.98**	**1627.10**	**1578.02**

5.13. Revenue Gap / (Surplus) for FY 2023-24 in review

Petitioner's submission:

BSPTCL has submitted that based on the ARR estimated and adjustment of Revenue approved for FY 2023-24 in Tariff Order dated 21.03.2023, has arrived at the Revenue Gap/(Surplus) for FY 2023-24, as shown in the table below:

Table 5.39: Revenue gap / (surplus) estimated for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review
1	Aggregate Revenue Requirement for FY 2023-24	1515.98	1627.10
2	**Add**: Revenue Gap / (Surplus) for FY 2021-22 with carrying cost	(339.36)	(339.36)
3	**Annual Transmission charges (1+2)**	**1176.62**	**1287.74**
4	**Less**: Approved Annual Transmission Charges	1176.62	1176.62
5	**Revenue Gap / (Surplus) for FY 2023-24 (3-4)**	**0.00**	**111.12**

Commission's analysis:

The Commission, based on the approved Aggregate Revenue Requirement, has arrived at the Revenue Gap / (Surplus) for FY 2023-24 in review as detailed in the Table below:

Table 5.40: Revenue gap / (surplus) considered for FY 2023-24 in review

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 21.03.2023	Projected by BSPTCL for FY 2023-24 in review	Considered in review for FY 2023-24
1	Aggregate Revenue Requirement for FY 2023-24	1515.98	1627.10	1578.02
2	**Add**: Revenue Gap / (Surplus) for FY 2021-22 with carrying cost	(339.36)	(339.36)	(339.36)
3	**Annual Transmission charges (1+2)**	**1176.62**	**1287.74**	**1238.66**
4	**Less**: Approved Annual Transmission Charges	1176.62	1176.62	1176.62
5	**Revenue Gap / (Surplus) for FY 2023-24 (3-4)**	**0.00**	**111.12**	**62.03**

The **net Gap *of Rs.62.03 Crore*** worked out in the review for FY 2023-24 is based on revised estimates (RE) of financial and operational performance submitted by the Petitioner.

Regulation 13 (f) of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021 which stipulates "…. the revised estimated gap/surplus as a result of APR may or may not be passed in the ARR of ensuring year". Accordingly, the revenue gap of FY 2023-24 is not considered to be carried forward in to the ARR of FY 2024-25.

6. Annual Revenue Requirement (ARR) and Transmission charges for FY 2024-25

6.1. Background

BSPTCL has submitted the petition dated 13th November, 2023 for approval of Annual Revenue Requirement (ARR) and transmission charges for FY 2024-25.

Determination of ARR and Transmission Charges for FY 2024-25 of BSPTCL has been undertaken by the Commission in accordance with BERC (Multi Year Transmission Tariff and SLDC charges) Regulations 2021.

6.2. Transmission Loss

Petitioner's submission

BSPTCL has submitted that the Commission in Tariff Order dated 25.03.2022 has approved transmission loss at 3.00% for each year of the control period FY 2022-23 to FY 2024-25. BSPTCL has submitted that various initiatives to reduce transmission losses and to achieve the transmission loss target of 3.00% and accordingly considered the transmission loss for FY 2024-25 as given in the table below.

Table 6.1: Transmission loss projected for FY 2024-25

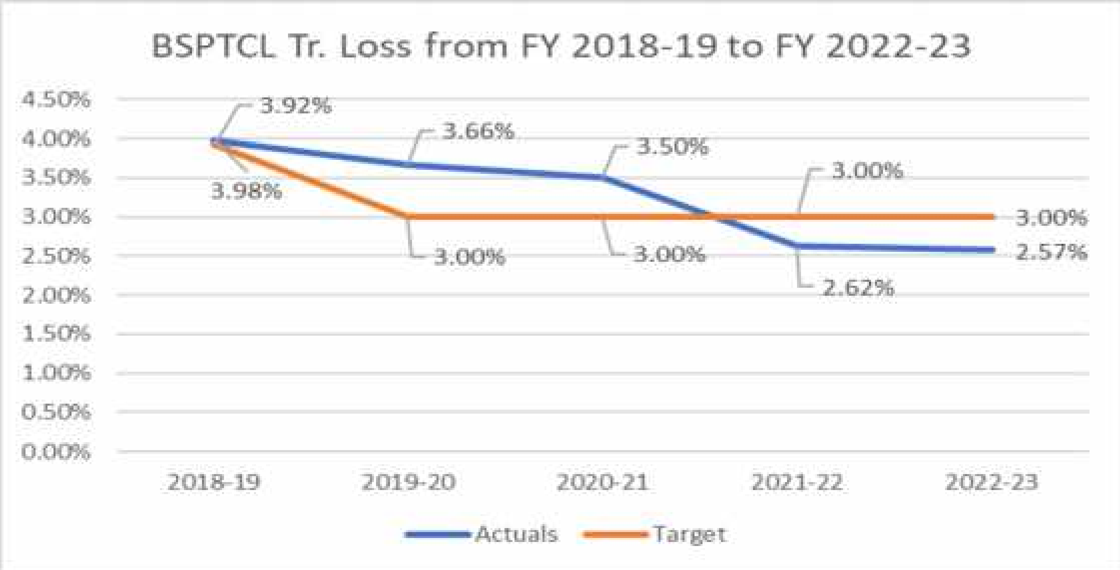
Particulars	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
Transmission loss	3.00%	3.00%

Commission's analysis

The Commission has approved the transmission system availability factor (TAF) at 98% (AC System) for full recovery of transmission charges and incentive at 99% (AC System) for each year of the control period FY 2022-23 to FY 2024-25 as specified in Regulation 16.1 of the BERC (Multi Year Transmission Tariff and SLDC charges) Regulations 2021.

The historical transmission losses for BSPTCL for the period FY 2016-17 to FY 2020-21 are as shown below:

Year	Actuals	Approved
2016-17	4.74%	3.92%
2017-18	4.49%	3.92%
2018-19	3.98%	3.92%
2019-20	3.66%	3.00%
2020-21	3.50%	3.92%
2021-22	2.62%	3.92%
2022-23	2.57%	3.00%



The Commission has approved transmission loss target at 3.00% for each year of the control period FY 2022-23 to FY 2024-25. The Commission accordingly has considered transmission loss at 3.00% for FY 2024-25.

Table 6.2:Transmission Availability Factor (TAF) and Transmission loss approved for FY 2024-25

Particulars	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for 2024-25	Approved for FY 2024-25
Transmission availability factor	98.00%	98.00%	98.00%
Transmission loss target	3.00%	3.00%	3.00%

6.3. Capital Investment Plan

Petitioner's submission:

BSPTCL has submitted that capex and capitalisation is projected based on status of all ongoing projects and significant number of projects are planned for completion within FY 2024-25. The detailed list of projects is furnished in Annexure-III.

BSPTCL has projected capital investment and capitalisation for FY 2024-25 as given in the Table below:

Table 6.3:Capex and Capitalisation projected for FY 2024-25

(Rs. Crore)

Particulars	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
Opening CWIP (A)	1496.20	1603.51
Capital investment during the year (B)	541.65	645.17
Less: Capitalisation during the year (C)	1795.64	1413.48
Closing CWIP (A+B-C)	242.21	835.20

Commission's analysis:

The Commission, in view of the need to develop the transmission system to transmit the additional power from generating stations and to meet the load growth and demand in the State, has provisionally approved the capital investment plan/capital expenditure, Capitalisation as proposed by the Petitioner for FY 2024-25. Further, capitalisation of Rs.282.62 Crore, not considered for FY 2023-24 in review, is considered to be capitalised in FY 2024-25.

The Commission based on the scheme-wise/work-wise statement (Annexure-III) furnished by the petitioner has considered the projected capitalisation and funding for FY 2024-25 as given below:

Table 6.4:Capex and Capitalisation considered for FY 2024-25

(Rs. Crore)

Sl. No.	Name of the scheme	Projected by BSPTCL for FY 2024-25		Considered for FY 2024-25	
		Capex	Capitalisation	Capex	Capitalisation
A	**13th Plan (other projects)**				
1	BRGF Schemes	66.09	165.34	66.09	165.34
2	State Plan	324.26	775.80	324.26	775.80
	Sub-Total – A	**390.35**	**941.14**	**390.35**	**941.14**
B	**New projects**				
3	State Plan	162.06	236.70	162.06	236.70
4	IRF schemes	25.47	127.70	25.47	127.70
5	Spl central funded scheme	57.69	98.34	57.69	380.96
6	Deposit schemes	9.60	9.60	9.60	9.60
	Sub-Total – B	**254.82**	**472.34**	**254.82**	**754.96**
	Total (A+B)	**645.17**	**1413.48**	**645.17**	**1696.10**

Table 6.5:Funding of Capitalisation considered for FY 2024-25

(Rs. Crore)

Sl. No.	Name of the scheme	Capitalisation considered for FY 2024-25	Equity	Loan	Grant
	13th Plan (other projects)				
1	BRGF Schemes	165.34	33.07	132.27	
2	State Plan	775.80	155.16	620.64	
	Sub-Total – A	**941.14**	**188.23**	**752.91**	**0.00**
	New projects				
3	State Plan	236.70	47.34	189.36	
4	IRF schemes	127.70		127.70	
5	Spl central funded scheme	380.96	114.29	266.67	
6	Deposit schemes	9.60			9.60
	Sub-Total – B	**754.96**	**161.63**	**583.73**	**9.60**
	Total (A+B)	**1696.10**	**349.86**	**1336.64**	**9.60**

The Commission has considered opening CWIP at Rs.1886.13 Crore for FY 2024-25 based on the closing CWIP of FY 2023-24 considered in review.

The Commission accordingly provisionally approves capital expenditure, Capitalisation and source of funding of capitalisation for FY 2024-25 as detailed in the Table below:

Table 6.6:Capital Investment and capitalisation approved for FY 2024-25

(Rs. Crore)

Particulars	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2023-24
Opening CWIP	1496.20	1603.51	1886.13
Add: Capex during the year	541.65	645.17	645.17
Less: Capitalisation	1795.64	1413.48	1696.10
Closing CWIP	242.21	835.20	835.20

The Commission accordingly, has considered capital investment and capitalisation for FY 2024-25 as detailed in the table above.

6.4. Funding of Capitalisation

Petitioner's submission:

The Petitioner has projected funding of the capitalisation in the Debt : Equity ratio of in terms of regulation 22 read with regulation 24.

BSPTCL has submitted that it has arrived at the means of finance for the projects in accordance with the Regulations. Accordingly, BSPTCL submits that for the purpose of funding, it has computed Net Asset expected to be capitalized during FY 2024-25 after deducting the amount estimated to be capitalised on account of grant received from PSDF and Deposit works. Further, it has considered the Debt Equity ratio in line with the approach adopted by the Commission in previous Tariff Orders. The details of the Debt Equity of capitalised projects of FY 2024-25 for the purpose of Loan and Equity addition is shown in the Table below:

Table 6.7:Debt Equity projected for FY 2024-25

(Rs. Crore)

Particulars	Projected for FY 2024-25
Capitalisation	1413.48
Less: Grants	9.60
Net capitalisation	1403.88
Equity	305.52
Debt	1098.36

Commission's analysis

Regulation 24 (b) of the BERC (Multi Year Transmission Tariff and SLDC charges) Regulations 2021 specify "if *the equity actually deployed is more than 30 % of the capital cost, equity in excess of 30 % shall be treated as normative loan.*

Provided that where equity actually deployed is less than 30% of the capital cost, the actual loan shall be considered for determination of interest on loan".

The Petitioner has furnished the scheme-wise details of capital investment and the funding is projected in the ratio of Debt Equity of 80 : 20 for State Plan schemes and 70 : 30 in respect of IRF schemes. The Commission in terms of Regulations 24 (b) and based on the detailed funding of schemes furnished by the petitioner has considered the funding of capitalisation through debt in respect projects/works implemented through IRF funding, spl. Central funded schemes in Debt Equity ratio of 70 : 30 and through debt @80% and equity @20% in respect of other projects/works implemented through State Plan funding for FY 2024-25 as given in the Table below:

Table 6.8:Debt Equity approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved for FY 2024-25
1	Capitalisation during the year	1696.10
2	Less: Grants	9.60
3	Net capitalisation	1686.50
4	Equity	349.86
5	Debt	1336.64

6.5. Gross Fixed Assets

Petitioner's submission:

BSPTCL has projected Gross Fixed Asset (GFA) for FY 2024-25 as given in the Table below:

Table 6.9:Gross fixed assets projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1	Opening GFA	14582.40	15171.79
2	Additions to GFA during the year	1795.64	1413.48
3	Closing GFA (1+2)	16378.04	16585.27

Commission's analysis

The Commission has considered closing GFA at Rs.14889.18 Crore for FY 2023-24 in review and the same is considered as opening GFA for FY 2024-25 and further updated with the additions to GFA based on capitalisation approved in Table 6.5 above. The opening value of GFA, additions and closing GFA for FY 2024-25 is as given in the Table below:

Table 6.10:Gross Fixed Assets approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Opening GFA	14582.40	15171.79	14889.18
2	Additions to GFA	1795.64	1413.48	1696.10
3	**Closing GFA (1+2)**	**16378.04**	**16585.27**	**16585.28**

6.6. Depreciation

Petitioner's submission

BSPTCL has submitted that it has projected depreciation for the year in accordance with regulation 23. Opening depreciable GFA for FY 2024-25 is considered equal to the closing depreciable GFA considered in APR of FY 2023-24 and additions to GFA is considered based on the capitalisation approved.

Weighted average depreciation rate of 5.23% on opening GFA and 2.65% on GFA addition during the year is considered as considered in Truing-up of FY 2022-23.

The opening value of Grants for FY 2024-25 is considered same as the closing value of grants considered in APR of FY 2023-24 and addition to grants is considered based on funding of capitalisation approved. BSPTCL has projected the depreciation for FY 2024-25 as given in the table below:

Table 6.11: Depreciation projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected for FY 2024-25
1	Opening depreciable assets	13134.08	13638.05
2	Additions during the year	1795.64	1413.48
3	Closing depreciable assets (1+2)	14929.72	15051.53
4	Weighted average rate of depreciation on opening GFA	5.21%	5.23%
5	Weighted average rate of depreciation on addition during the year	3.89%	2.65%
6	Depreciation (1*4) + (2*5)	753.89	751.27
7	Opening Grants	2215.59	2234.39
8	Grants during the year		9.60
9	Total Grants (7+8)	2215.59	2243.99
10	Weighted average rate of depreciation on opening Grant	5.21%	5.23%
11	Weighted average rate of depreciation on addition during the year	3.89%	2.65%
12	Depreciation on assets created out of grants (7*10) + (8*11)	115.38	117.20
13	Net Depreciation claimed in ARR (6-12)	638.51	634.07

Commission's analysis

The Commission has computed the depreciation in accordance with the Regulation 23 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021.

The Commission has arrived at the weighted average rate of depreciation at 5.09% on opening depreciable assets and 2.65% on asset addition during the year in truing up for FY 2022-23 and same rates have been adopted provisionally for computing depreciation on assets and prorate depreciation on grants for FY 2024-25.

The Commission has considered closing value of depreciable assets at Rs.13410.18 Crore in review for FY 2023-24 and the same is considered as opening depreciable GFA for FY 2024-25. The opening Grants of Rs.2234.39 Crore is considered based on the closing grants considered in review for FY 2023-24. Addition to GFA and grants during the year is considered based on capitalisation approved (Table 6.8).

The Commission, accordingly, has considered opening value of depreciable GFA, additions to GFA and closing GFA and depreciation on assets as given in the Table below:

Table 6.12: Depreciation approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in MYT order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Opening depreciable assets	13134.08	13638.05	13410.18
2	Additions during the year	1795.64	1413.48	1696.10
3	Closing depreciable assets (1+2)	14929.72	15051.53	15106.28
4	Weighted average rate of depreciation on opening GFA	5.21%	5.23%	5.09%
5	Weighted average rate of depreciation on addition during the year	3.89%	2.65%	2.65%
6	Depreciation (1*4) + (2*5)	753.89	751.27	727.52
7	Opening Grants	2215.59	2234.39	2234.39
8	Grants during the year		9.60	9.60
9	Total Grants (7+8)	2215.59	2243.99	2243.99
10	Weighted average rate of depreciation on opening Grant	5.21%	5.23%	5.09%
11	Weighted average rate of depreciation on addition during the year	3.89%	2.65%	2.65%
12	Depreciation on assets created out of grants (7*10) + (8*11)	115.38	117.20	113.98
13	**Net Depreciation considered in ARR (6-12)**	**638.51**	**634.07**	**613.54**

The Commission accordingly, approves depreciation for FY 2024-25 as detailed in the table above.

6.7. Interest on Loans

Petitioner's submission

BSPTCL has submitted that normative opening loan balance for FY 2024-25 is considered equal to the closing balance considered in APR for FY 2023-24. Normative loan addition is considered based on the means of finance. Repayment of loan is considered equivalent to depreciation allowed for the year. Weighted average interest rate is considered 8.56% as claimed in truing up for FY 2022-23 and APR for FY 2023-24 for computing interest on normative loan for FY 2024-25.

BSPTCL has considered other finance charges of Rs.1.04 Crore in line with the actual other finance charges claimed in FY 2022-23.

BSPTCL has projected interest on loans for the year as detailed in the Table below:

Table 6.13:Projected Interest on loans for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1	Opening Loan	**5595.59**	**6101.20**
2	Addition during the year	1436.51	1098.36
3	Normative Repayment (Equal to Depreciation)	638.51	634.07
4	Closing Loan	**6393.59**	**6565.48**
5	Average Loan	**5994.59**	**6333.34**
6	Interest Rate (%)	7.93%	8.56%
7	Interest on Loan	**475.37**	**542.34**
8	Other Finance Charges	0.04	1.04
9	**Interest and Finance Charges (7+8)**	**475.41**	**543.38**

Commission's analysis

The Regulation 24 (j) stipulates "*addition to loan during the year for interest purpose will be restricted to the quantum of assets capitalised ………*".

The Commission, in view of the regulation, has considered the debt as detailed in Table 6.8 based on assets capitalised during the year.

The opening loan for FY 2024-25 is considered based on the closing loan of Rs.6001.76 Crore approved in review for FY 2023-24. Rate of interest is provisionally considered at 8.22% for FY 2024-25 as is considered in truing up for FY 2022-23.

Other finance charges are considered provisionally at Rs.1.04 Crore for FY 2024-25 based on the actual expenses reported in audited accounts for FY 2022-23.

The Commission, accordingly, has considered interest on loans for the year as detailed in the Table below:

Table 6.14:Interest on loans approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in MYT order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Opening loan balance	5595.59	6101.20	6001.76
2	Additions during the year	1436.51	1098.36	1336.64

Sl. No.	Particulars	Approved in MYT order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
3	Normative Repayment	638.51	634.07	613.54
4	Closing Loan (1+2-3)	6393.59	6565.48	6724.86
5	Average Loan {(1+4)/2}	5994.59	6333.34	6363.31
6	Interest rate	7.93%	8.56%	8.22%
7	**Interest on loans (5x6)**	**475.37**	**542.34**	**522.79**
8	other finance charges	0.04	1.04	1.04
9	**Interest and finance charges (7+8)**	**475.41**	**543.38**	**523.83**

The Commission accordingly, approves interest and finance charges for FY 2024-25 as detailed in the table above.

6.8. Return on Equity

Petitioner's submission:

BSPTCL has submitted that Return on Equity is calculated in accordance with Regulation 22 read with Regulation 27 (2) of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021.

BSPTCL has considered opening equity for FY 2024-25 based on the closing equity considered in review for FY 2023-24. Addition to equity during the year is considered based on capitalisation.

BSPTCL has proposed RoE at 8.00% for FY 2024-25 and stated that BSPTCL shall be at liberty to claim RoE either at the reduced rate of 8.00% or 15.50% as per regulations, 2021 at the time of filling the next tariff petition.

BSPTCL has considered the MAT rate of 17.47% in line with the actual MAT rate applicable for FY 2022-23 as per annual accounts to arrive at effective Tax rate. BSPTCL has calculated the RoE as given in the table below:

Table 6.15:Return on Equity projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2023-24
1	Opening Equity as on 1.4.2015	375.41	375.41
2	Rate of Return on Equity	10.00%	8.00%
3	Tax/MAT rate %	17.47%	17.47%
4	Rate of Return on Equity (Pre-tax)	12.12%	9.69%
5	Return on Equity (1*4)	45.50	36.39

Sl. No.	Particulars	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2023-24
	Equity on projects commissioned w.e.f.1.4.2015		
6	Opening Equity	2383.31	2604.21
7	Addition of equity during the year	359.13	305.52
8	Closing Equity (6+7)	2742.44	2909.73
9	Average Equity	2562.88	2756.97
10	Rate of Return on Equity	10.00%	8.00%
11	Tax/MAT rate %	17.47%	17.47%
12	Rate of Return on Equity (Pre-tax)	12.12%	9.69%
13	Return on Equity (9*12)	310.62	267.25
14	**Total Return on Equity (5+13)**	**356.12**	**303.64**

Commission's analysis

The Commission has considered Debt Equity based on the capitalisation as detailed in the Table below:

Table 6.16:Debt-Equity Approved for FY 2024-25

Particulars	Approved for FY 2024-25
Capitalisation	1696.10
Less: Grants	9.60
Net Capitalisation	1686.50
Equity	349.86
Debt	1336.64

The Commission has approved closing equity of Rs.375.41 Crore to end of 31.03.2015. Further, the Commission has considered closing equity of Rs.2442.53 Crore relating to projects commissioned w.e.f.1.4.2015 in review for FY 2022-23. The Commission accordingly has considered the opening equity for computation of RoE. Addition to the equity is considered based on capitalisation Table 6.16 above.

The Petitioner has proposed rate of return on equity at 8.00% accordingly the Commission considers rate of return on equity at 8.00% (post tax) and arrived at the pre-tax Rate of return on equity at 9.69% (8.00%/(1-17.47%). (17.47% represent MAT@15%+Surcharge 12% on 15% and HESC 4% on MAT+Surcharge)).

The Commission accordingly computed the RoE for FY 2024-25 as given in the Table below:

Table 6.17: Approved Return on Equity for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in MYT order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Equity as on 1.4.2015	375.41	375.41	375.41
2	Rate of return on Equity	10.00%	8.00%	8.00%
3	Rate of MAT (incl. Surcharge and HSE Cess)	17.47%	17.47%	17.47%
4	Pre-tax Rate of return on equity	12.12%	9.69%	9.69%
5	Return on equity	45.50	36.39	36.38
	Equity of projects commissioned w.e.f.1.4.2015			
6	Opening equity from FY 2015-16	2383.31	2604.21	2442.53
7	Addition during the year	359.13	305.52	349.86
8	Closing Equity (6+7)	2742.44	2909.73	2792.39
9	Average equity (4+8)/2	2562.88	2756.97	2617.46
10	Rate of Return on equity	10.00%	8.00%	8.00%
11	Rate of MAT (incl. Surcharge and HSE Cess)	17.47%	17.47%	17.47%
12	Pre-tax Rate of return on equity	12.12%	9.69%	9.69%
13	Return on equity (9*12)	310.62	267.15*	253.63
14	**Total Return on equity (5+13)**	**356.12**	**303.54**	**290.01**

* BSPTCL has wrongly considered as 267.25, however correctly adopted and shown in the table incl. total.

The Commission approves the Return on Equity for FY 2024-25 as detailed in the Table above.

6.9. Operation and Maintenance (O&M) expenses

6.9.1 Employee expenses

Petitioner's submission:

BSPTCL has submitted that the Commission, in Tariff order dated 25.03.2022 has approved base value of norms for Employee Expenses for each year of the control period of FY 2022-23 to FY 2024-25 as given below.

Table 6.18: Base value of norm considered by BSPTCL for FY 2024-25

Sl. No.	Particulars	Base value for FY 2024-25
1	Number of personnel per ckt. km (55%)	0.0823
2	Number of personnel per substation (45%)	7.2218
3	Annual expenses per personnel (Rs. Lakh)	9.8576

BSPTCL has considered the escalation on the above base value norms for computing Normative Employee Expenses of FY 2024-25. Further, BSPTCL has projected Transmission Line in Ckt. KM & number of sub-stations based on projections of ongoing projects to be completed by FY 2024-25. The number of employees for FY 2024-25 has been considered based on retirements & planned recruitments during the year. Details of these parameters are provided hereunder.

Table 6.19: Projected transmission lines, substations and employees for FY 2024-25

Sl. No.	Particulars	As on Mar, 2025 (Projected)
1	Transmission Line in Ckt. KM	17,312
2	No. of sub-stations	153
3	No. of employees	2,172

Regulation 21.1 specifies that the employee cost shall be computed as per the approved norms escalated by average increase in CPI for immediately preceding three years. The relevant excerpt of the regulation is as follows:

"21.1 Employee Cost Employee cost shall be computed as per the approved norm escalated by consumer price index (CPI), adjusted by provisions for expenses beyond the control of the Transmission Licensee and one-time expected expenses, such as recovery/adjustment of terminal benefits, implications of pay commission, arrears and Interim Relief, governed by the following formula:

*EMPn = (EMPb * CPI inflation) + Provision*

Where:

EMPn : Employee expense for the year n

EMPb : Employee expense as per the norm

CPI inflation: is the average increase in the Consumer Price Index (CPI)for immediately preceding three years……"

BSPTCL has considered the increase in the CPI indices up to March 2022 and accordingly computed rate of escalation of base year employee expenses as given below

Table 6.20:Computation of CPI Inflation considered for FY 2024-25

Particulars	Actual				Projected	
	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Annual Average CPI Index	323	339	356	378		
CPI Inflation		5.02%	5.13%	6.05%	5.40%	5.40%

BSPTCL submitted that escalation is considered on the base value norms of Annual expenses per personnel and computed the Normative Employee Expenses for FY 2024-25 as given in the table below:

Table 6.21:Normative employee expenses projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Base value Norm	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1	Average annual CPI Inflation		6.00%	5.40%
2	Norms-Number of personnel per Ckt. KM	0.082	0.0824	0.0823
3	Norms-Number of personnel per substation	7.2218	7.2245	7.2218
4	Transmission line length in Ckt. KM		19,850	17,312
5	No. of Sub-stations		165	153
6	Norms-Annual expenses per personnel (Rs. lakh)	9.8576	8.6700	10.3900
7	Employee cost (Number of personnel per Ckt. KM (2*4*6)/100 (Rs. Crore)		141.75	148.03
8	Employee cost (Number of personnel per substation (3*5*6)/100 (Rs. Crore)		103.35	114.80
9	Total Employee cost for the year (7+8) (Rs. Crore)		245.10	262.84

Commission's analysis:

Regulation 21.1 read with regulation 21 specifies that the Commission shall stipulate a separate trajectory of norms for employee expenses in terms of number of personnel per Ckt/km, number of personal per bay and annual expenses per personnel.

The Commission, in terms of regulation 21 had determined the norm for employee expenses in the Table 6.22 of the Tariff Order dated 21.03.2023 as given below:

Particulars	Base Value
No. of personnel per Ckt KM	0.0823
No. of personnel per SS	7.2218
Annual expenses per personnel (Rs. Crore)	0.08832

Regulation 21(g) specifies that the norms determined at constant prices of base year shall be escalated on account of inflation.

The Commission has examined the computation of the average increase in the Consumer Price Index (CPI) for the immediately preceding three years claimed by the petitioner and found correct. The Commission, accordingly has considered average increase in the Consumer Price Index (CPI) 5.40% and inflated the base Annual expenses per personnel to arrive the normative Annual expenses per personnel for FY 2024-25. The normative annual expenses per personnel approved for FY 2023-24 is at Rs.9.857 lakhs/per employee and the same is considered as based norm and further considered inflationary increase of 5.40% for estimating the employee expenses for FY 2024-25.

The petitioner has furnished the details of total number of personnel, total no. of substations and total length of lines in Ckt KM for FY 2024-25.

The Commission considering the above has computed the employee expenses with inflationary indexation of 5.40% for FY 2024-25 as detailed in the Table below:

Table 6.22: Employee expenses approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Base Norm	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Average annual CPI index		5.89%	5.89%
2	Norms-Number of personnel per Ckt/KM	0.0823	0.0823	0.0823
3	Norms-Number of personnel per substation	7.2218	7.2218	7.2218
4	Transmission line in Ckt KM		17312	17312
5	No. of substations		153	153
6	Norms-Annual expenses per personnel (Rs. lakh)	9.857	10.390	10.390
7	Employee cost (Number of personnel per Ckt/KM basis) (2*4*6)/100 (Rs. Crore)		148.03	148.03
8	Employee cost (Number of personnel per substation basis) (3*5*6)/100 (Rs. Crore)		114.80	114.80
9	**Total Employee cost for the year (7+8) (Rs. Crore)**		**262.84**	**262.83**

The Commission approves employee cost for FY 2024-25 as detailed in the table above.

6.9.2 Administrative & General (A&G) expenses

Petitioner's submission:

BSPTCL has submitted that A&G Expenses mainly comprise of rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits. The Commission, in Tariff Order dated

25th March 2022 has approved Base Norms for the control period for computing Normative A&G Expenses. The applicable/escalated norms as considered in the APR for the FY 2023-24 has been escalated further as per provisions stipulated in the BERC MYT Regulations 2021 to arrive at the applicable norm for the FY 2024-25.

Base Value considered for Normative A&G Expenses of FY 2024-25

Sl. No.	Particulars	Base value of norm
1	A&G Expenses per personnel (Rs. Lakh)	1.1735
2	A&G Expenses per sub-station (Rs. Lakh)	15.4130

BSPTCL has considered the escalation on the above base value norms for computing A&G expenses for FY 2024-25. Regulation 21.3 of the BERC MYT Regulations, 2021 provides for escalation of base value norms for consideration of A&G Expenses. The relevant extracts are as follows:

"21.3 Administrative and General (A&G) Expense

A&G expense shall be computed as per the norm escalated by wholesale price index (WPI) and Consumer Price Index (CPI) in the ratio 60:40 and adjusted by provisions for confirmed initiatives (IT etc. initiatives as proposed by the Transmission Licensee and validated by the Commission) or other expected one-time expenses, and shall be governed by following formula:

*A&Gn = (A&Gb * WPI inflation) + Provision*

Where:

A&Gn: A&G expense for the year n

A&Gb: A&G expense as per the norm

WPI inflation: is the average increase in the Wholesale Price Index (WPI) for immediately preceding three years …"

In accordance with the above Regulation, BSPTCL has calculated the weighted average inflation rate of WPI & CPI Indices in the ratio of 60:40 as provided in the following table:

WPI: CPI inflation considered for A&G Expenses of FY 2024-25

Particulars	Actual				Projected	
	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
Annual Average CPI Index	323	339	356	378		
CPI Inflation		5.02%	5.13%	6.05%	5.40%	5.40%
Annual Average WPI Index	122	123	139	153		
WPI Inflation		1.29%	13.00%	9.41%	7.90%	7.90%
WPI: CPI (60:40)					6.90%	6.90%

BSPTCL has computed A&G expenses in accordance with Regulation 21.3 considering the base norms and escalation for FY 2024-25 as given in the table below.

Table 6.23: A & G expenses projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Base value of norm	Approved in Tariff order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1	Average annual WPI & CPI Index		3.85%	6.90%
2	Norms-A&G Expenses per personnel	1.1735	1.1644	1.2544
3	Norms-A&G Expenses per substation (Rs. Lakh)	15.4130	15.300	16.4765
4	No. of Employees		2,263	2,172
5	No. of Sub-stations		165	153
6	A&G Expenses (No. of employees) (2*4) (Rs. Crore)		26.35	27.25
7	A&G Expenses (No of substations) (3*5) (Rs. Crore)		25.24	25.21
8	**Total A&G Expenses for the year (Rs. Crore) (6+7)**		**51.59**	**52.46**

Commission's analysis:

The Commission had determined the norm for A&G expenses in the Table 6.28 of the Tariff Order dated 25.03.2022 as given below:

Particulars	Base Value
Norm - A&G expense per personnel	1.040
Norm - A&G expense per SS	13.660

Regulation 21.3 specifies that A&G expense shall be computed as per the norm escalated by Wholesale Price index (WPI) and Consumer Price Index (CPI) in the ratio of 60:40 based on the immediately preceding three years. The Commission has computed the weighted average increase in the WPI and CPI for the immediately preceding three years at 6.90% in review and the same is considered for FY 2024-25. Accordingly, the Commission has considered the weighted average increase in the WPI CPI of 6.90% and escalated the base Annual A&G expenses per personnel and per substation to arrive the normative Annual A&G expenses for FY 2024-25.

The normative A&G expenses per employee approved for FY 2023-24 is at Rs.15.413 lakhs/SS and Rs.1.173 lakhs/per employee and the same is considered as based norm and further considered inflationary increase of 6.90% for estimating the A&G expenses for FY 2024-25.

The Commission, provisionally, considers the total number of personnel and total no. of substations for FY 2024-25 as projected by the Petitioner.

The Commission considering the above has computed the A&G expenses with inflationary indexation of 6.90% for FY 2024-25 as detailed in the Table below:

Table 6.24:A&G expenses approved for FY 2024-25

Sl. No.	Particulars	Base value of norm	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Average annual WPI & CPI Index		6.90%	6.90%
2	Norms-A&G Expenses per personnel	1.173	1.254	1.254
3	Norms-A&G Expenses per substation (Rs. Lakh)	15.413	16.4765	16.4765
4	No. of Employees		2172	2172
5	No. of Sub-stations		153	153
6	A&G Expenses (No. of employees) (2*4) (Rs. Crore)		27.25	27.25
7	A&G Expenses (No of substations) (3*5) (Rs. Crore)		25.21	25.21
8	**Total A&G Expenses for the year (Rs. Crore) (6+7)**		**52.46**	**52.46**

The Commission, accordingly, approves A&G expenses for FY 2024-25 as detailed in the table above.

6.9.3 Repairs & Maintenance (R&M) expenses

Petitioner's submission:

BSPTCL has submitted Regulation 21.2 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021 specify the provisions for computation of norms for R&M expenses as given below:

21.2 Repairs and Maintenance (R&M) Expense

Repairs and Maintenance expense shall be calculated as percentage (as per the norm determined) of Opening Gross Fixed Assets excluding land cost for the year governed by following formula:

*R&Mn = Kb * GFAn*

Where:

R&Mn : Repairs & Maintenance expense for nth year

GFAn : Opening Gross Fixed Assets for nth year

Kb : Percentage point as per the norm.

It is submitted that the Commission, in Tariff order dated 25.03.2022 has approved the ‘K’ factor at 0.70% for each year of the control period FY 2022-23 to FY 2024-25. BSPTCL has accordingly computed the R&M expenses considering the ‘K’ factor (R&M norm) for FY 2024-25 as shown in the Table below:

Table 6.25:R&M Expenses projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in MYT order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1.	Opening GFA (net of Land)	13134.08	13638.05
2.	% on GFA (K factor)	0.70%	0.70%
3	**R&M Expenses on Opening GFA (1*2)**	**91.94**	**95.47**

Commission’s analysis:

Regulation 21.2 of the BERC (Multi Year Transmission Tariff and SLDC charges) Regulations 2021 specify R&M expenses as percentage of opening gross fixed assets (excluding land cost) for estimation of R&M expenses.

The Commission, in Tariff Order dated 25.03.2022 had approved the ‘K’ factor at 0.70% for the control period FY 2022-23 to FY 2024-25. Accordingly, in terms of Regulation 21.2 considers the ‘K’ Factor of 0.70% for allowing R&M expenses for FY 2024-25.

The Commission has approved opening GFA net of land for FY 2024-25 in Table 6.10 and accordingly, considers the R&M expenses as a % of the Opening GFA net of land for FY 2024-25 as given the Table below:

Table 6.26: Repairs & Maintenance Expenses approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in MYT order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Opening GFA (net of land)	13134.08	13638.05	13410.18
2	% on GFA	0.70%	0.70%	0.70%
3	**R&M on opening GFA (1*2)**	**91.94**	**95.47**	**93.87**

The Commission, accordingly, approves R & M expenses for FY 2024-25 as detailed in the table above.

6.9.4 Holding company expenses

Petitioner's submission

BSPTCL, in terms of transfer scheme, has projected Holding company expenses for FY 2024-25 as given in the Table below:

Table 6.27:Holding company expenses projected for FY 2024-25

(Rs. Crore)

Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
Holding company expenses	11.44	16.08

Commission's analysis:

The Commission, in terms of Bihar State Electricity Reforms Transfer Scheme 2012, considers holding company expenses provisionally based on the actual expenses reported through audited accounts and as approved in true up for FY 2022-23 subject to true up as detailed in the Table below:

Table 6.28:Holding company expenses approved for FY 2024-25

(Rs. Crore)

Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
Holding company expenses	11.44	16.08	16.08

The Commission, accordingly, approves holding company expenses for FY 2024-25 as detailed in the table above.

6.9.5 Summary of Operation and Maintenance (O&M) Expenses

Petitioner's submission:

BSPTCL has projected the total O&M expenses for FY 2024-25 as given in the table below:

Table 6.29:Total O&M expenses projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1	Employee cost	245.10	262.84
2	R&M expenses	91.94	95.47
3	A&G Expenses	51.59	52.46
4	Holding company expenses	11.44	16.08
5	**Total O&M expenses**	**400.06**	**426.84**

Commission's analysis:

Based on the analysis, the Commission has considered the O&M expenses for FY 2024-25 as detailed in the table below:

Table 6.30:Total O&M cost approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Employee cost	245.10	262.84	262.83
2	R&M expenses	91.94	95.47	93.87
3	A&G Expenses	51.59	52.46	52.46
4	Holding company expenses	11.44	16.08	16.08
5	**Total O&M expenses**	**400.06**	**426.84**	**425.24**

6.10. Non-Tariff Income

Petitioner's submission:

BSPTCL has projected non-tariff income considering 5% escalation over the non-tariff income estimated for FY 2023-24. The Petitioner has projected the non-tariff income for FY 2024-25 as detailed in the table below:

Table 6.31:Projected Non-tariff income for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1	Non-Tariff Income of previous year	69.09	75.46
2	Escalation	5.00%	5.00%
3	Increase	3.45	3.77
4	**Non-Tariff Income for the Year**	**72.54**	**79.24**

Commission's analysis:

The Commission has approved non-tariff income of Rs.75.47 Crore for FY 2023-24 in review and accordingly considered the non-tariff income with escalation of 5.00% as proposed by the Petitioner for FY 2024-25, subject to true up based on the audited accounts, as given in the table below:

Table 6.32:Approved Non-tariff income for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Base year non-tariff income	69.09	75.46	75.47

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
2	Escalation %	5.00%	5.00%	5.00%
3	Increase	3.45	3.77	3.78
4	Non-tariff income	**72.54**	**79.24**	**79.25**

The Commission approves the non-tariff income for FY 2024-25 as given in the above Table.

6.11. Income from other business

Petitioner's submission:

BSPTCL has submitted, the Commission vide order dated 20.10.2023 (Case No. 11 of 2023) has approved the OPGW Cable business and has also specified the sharing of two third of the amount of Gain from the other business be allowed to pass through as an adjustment in the tariff of the petitioner and the balance one third of the amount of such gain shall be on account of the petitioner and shall be liable to be utilised at the discretion of the petitioner, BSPTCL.

BSPTCL has stated that since gains from the OPGW cable business cannot be quantified with certainty at present, it has claimed sharing of gains derived from other business in the ARR of FY 2024-25 on the basis of actual receipt of FY 2022-23. It is further submitted that it shall calculate the gains from OPGW business and claim the variation based on the audited figures in true-up for FY 2024-25.

BSPTCL has estimated the sharing of gains from other business (OPGW cable) at Rs.1.03 Crore in review for FY 2024-25.

Commission's analysis:

The Commission has approved sharing of lease rental income from leasing of OPGW cable at Rs.1.03 Crore for FY 2022-23 in true up. The Commission accordingly has provisionally considered the lease rental income from other business at Rs.1.03 Crore for FY 2024-25 as detailed in the Table below.

Table 6.33:Sharing of income from other business approved for FY 2024-25

(Rs. Crore)

Particulars	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
Sharing of Income from other business – lease rentals from OPGW cable	1.03	1.03

The Commission, accordingly, considers sharing of income from other business for FY 2024-25 as detailed in the table above.

6.12. Interest on working capital

Petitioner's submission:

BSPTCL has submitted that it has arrived at the working capital requirement in accordance with Regulation 26 of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021 extracted hereunder:

*"**26 Interest on working Capital***

(a) The Transmission Licensee shall be allowed interest on the estimated level of working capital for the financial year, computed as follows:

(i) Receivables equivalent to two (2) month of transmission charges calculated on target availability level.

(ii) O&M Expenses of one (01) month.

(iii) Maintenance spares @ 40% of R&M expenses for one month.

……..

Less:

(iv) Return on equity and contribution to contingency reserves equivalent to two months.

(v) Amount of security deposits from Transmission System users, if any, held during the year except the security deposits held in the form of Bank Guarantee from Transmission System Users.

………

b) Interest on working capital shall be on normative basis and rate of interest shall be equal to the State Bank (one-year tenure) Marginal Cost of Funds-based Lending Rate ('MCLR') as of the date on which petition for determination of tariff is filed plus 150 basis points. The rate of interest for the purpose of Truing-up shall be the weighted average MCLR of the concern Financial Year plus 150 basis points.

……..”

Regulation 26 (b) specifies that the rate of interest on working capital shall be equal to State Bank of India (SBI) one-year MCLR as on 13.09.2023 plus 150 basis points (i.e.1.50%). BSPTCL has accordingly considered interest rate of 10.05% (SBI MCLR 8.55%+1.50%) for computation of interest on working capital for FY 2024-25 as shown in the Table below:

Table 6.34: Interest on Working Capital projected for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1	Receivables equivalent to two (2) months	303.57	309.60
2	O&M Expenses of one month	33.34	35.57
3	Maintenance spares @ 40% of R&M expenses for one month	3.06	3.18
4	Less: RoE and contribution to contingency reserve for 2 months	59.35	50.61
5	**Total Working Capital**	**280.62**	**297.74**
6	Rate of Interest on Working Capital	8.50%	10.05%
7	**Interest on Working Capital**	**23.85**	**29.92**

Commission's analysis

The Commission has computed the working capital requirement and interest on working capital as per the norms specified in Regulation 26 of the BERC (Multi Year Transmission Tariff and SLDC charges) Regulations 2021. The regulation 26 (b) specify the rate of interest shall be equal to State Bank one year MCLR as of the date on which tariff petition is filed plus 150 basis points. The Petitioner has filed tariff petition on 13.11.2023 and the prevailing SBI MCLR is at 8.55% (one year tenure). The Commission has considered rate of interest of 10.05% (8.55%+1.50%) for computation of interest on working capital for FY 2024-25. The maintenance spares are considered at 40% of 1 month R&M expenses and reduced return on equity and contribution to contingency reserve equivalent to two months in terms of regulations.

The Commission has computed the working capital requirement and interest on working capital as per expenses approved at an interest rate of 10.05% for FY 2024-25 as given in the Table below:

Table 6.35:Approved Interest on working capital for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Receivables equivalent to two (2) months	303.57	309.60	300.26
2	O&M Expenses of one month	33.34	35.57	35.44
3	Maintenance spares @ 40% of R&M expenses for one month	3.06	3.18	3.13
4	Less: RoE and contribution to contingency reserve for 2 months	59.35	50.61	48.33
5	**Total Working Capital**	**280.62**	**297.74**	**290.49**
6	Rate of Interest on Working Capital	8.50%	10.05%	10.05%
7	**Interest on Working Capital**	**23.85**	**29.92**	**29.19**

The Commission approves the interest on working capital for FY 2024-25 as given in the above Table.

6.13. Aggregate Revenue Requirement/ARR

Petitioner's submission

BSPTCL has projected the ARR by aggregating all the expenses for FY 2024-25 as given in the Table below:

Table 6.36:Projected ARR for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25
1	O&M expenses (a+ b+ c+ d)	400.07	426.85
	a. Employee cost	245.10	262.84
	b. R&M expenses	91.94	95.47
	c. A&G Expenses	51.59	52.46
	d. Holding Company expenses	11.44	16.08
2	Interest and finance charges	475.41	543.38
3	Interest on working capital	23.85	29.92
4	Depreciation	638.51	634.07
5	Return on Equity	356.12	303.64
6	**Less**: Non-tariff income	72.54	79.24
7	**Less:** sharing of income from other business	--	1.03
8	**ARR for the year**	**1821.43**	**1857.59**

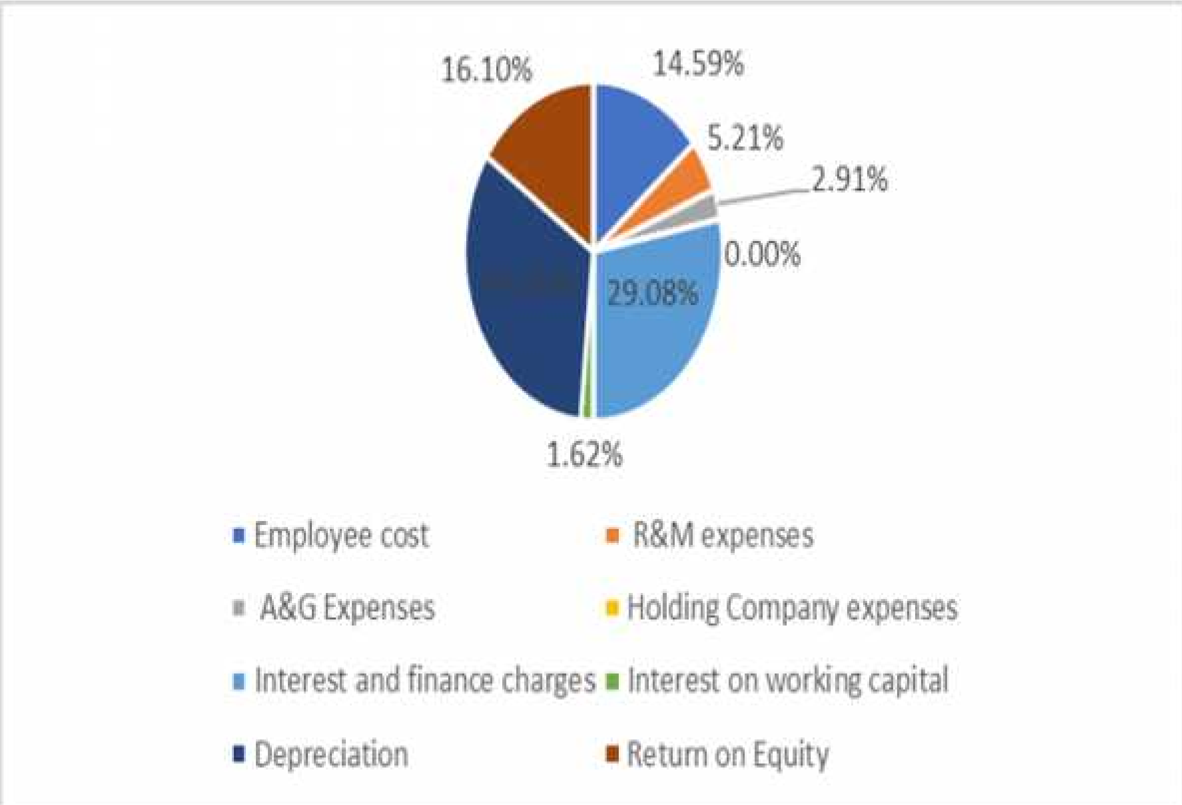
Commission's analysis:

The Commission, based on the detailed analysis, has considered the Aggregate Revenue Requirement for FY 2024-25 as detailed in the Table below:

Table 6.37:ARR approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Approved in Tariff Order dated 25.03.2022	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	**O&M expenses (a+ b+ c+ d)**	**400.07**	**426.85**	**425.24**
	a. Employee cost	245.10	262.84	262.83
	b. R&M expenses	91.94	95.47	93.87
	c. A&G Expenses	51.59	52.46	52.46
	d. Holding Company expenses	11.44	16.08	16.08
2	Interest and finance charges	475.41	543.38	523.83
3	Interest on working capital	23.85	29.92	29.19
4	Depreciation	638.51	634.07	613.54
5	Return on Equity	356.12	303.64	290.01
6	**Less**: Non-tariff income	72.54	79.24	79.25
7	**Less:** sharing of income from other business	--	1.03	1.03
8	**ARR for the year**	**1821.43**	**1857.59**	**1801.54**



6.14. Trued up Revenue Gap of FY 2022-23

The Commission had arrived at net revenue surplus Rs.67.54 Crore in the truing up for FY 2022-23 as against the revenue surplus of Rs.37.75 Crore arrived at by the petitioner.

Regulation 13 (f) of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021 specify "***the Revenue gap/surplus arising out of truing up shall be considered by the Commission while determining the ARR of ensuing year(s). While approving adjustments towards revenue/expenses in future years, arising out of Truing up exercises, the Commission may allow the carrying costs as determined by the Commission of such expenses/revenues***".

The Commission, in terms of regulation 13 (f) has carried forward the trued-up revenue surplus along with carrying cost in the ARR of FY 2024-25.

The Commission has considered carrying cost @ 9.30% (weighted average SBI MCLR 7.80% plus 150 basis points) for half year of FY 2022-23, @10.05% (SBI MCLR 8.55% plus 150 basis points) for full year of FY 2023-24 and for half year of FY 2024-25 on the trued up revenue surplus of FY 2022-23 assuming that the revenue surplus has been created over FY 2022-23 and adjustment/recovery would have been made during FY 2024-25 following the methodology adopted by the Hon'ble APTEL order dated 08.04.2015 in Appeal No.160 of 2012 (Reliance Infrastructure Limited *Vs* MERC & others) as detailed in the Table below:

Table 6.38:Trued up revenue surplus of FY 2022-23 with carrying cost

(Rs. Crore)

Particulars	Amount
Revenue Gap/(Surplus) approved in true up for FY 2022-23 to be carried forward	(67.54)
Interest for FY 2022-23 [(Wt. average SBI MCLR Rate 7.80%+1.50%) 9.30%] for half year	(3.14)
Interest for FY 2023-24 (SBI MCLR 8.55%+1.50%) @ 10.05% for 1 year	(6.79)
Interest for FY 2024-25 (SBI MCLR 8.55%+1.50%) @10.05% for 6 months	(3.23)
Total gap/(surplus) with interest	**(80.70)**

The Commission accordingly carried forward Rs.80.70 Crore [67.54+13.16 (interest)] in to the ARR of FY 2024-25.

6.15. Annual Transmission charges for FY 2024-25

The Commission has approved the ARR at Rs.1801.54 Crore for FY 2024-25. The Commission had approved carry forward revenue surplus of Rs.80.70 Crore including carrying cost (Table 6.38) for FY 2022-23 in truing up. Thus, the annual transmission charges for FY 2024-25 are computed as given in the table below:

Table 6.39: Annual Transmission Charges approved for FY 2024-25

(Rs. Crore)

Sl. No.	Particulars	Projected by BSPTCL for FY 2024-25	Approved for FY 2024-25
1	Aggregate Revenue Requirement approved for FY 2024-25	1857.59	1801.54
2	Add: Trued up revenue Gap/(Surplus) of FY 2022-23 with carrying cost	(45.19)	(80.70)
3	**Annual Transmission charges for FY 2024-25 (1+2)**	**1812.40**	**1720.84**

6.16. Methodology for Recovery of ARR

Regulation 33 stipulates the procedure for recovery of annual transmission charges as for the formula given below:

The annual Transmission charges of the transmission system shall be computed on annual basis, in accordance with norms contained in these regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users.

The Transmission charge (inclusive of incentive/disincentive) for AC system payable for a calendar month shall be:

ARR X (NDM/NDY) x (TAFM/NATAF)

Where; NATAF= 98%

NDM = Number of days in the month NDY = Number of days in the year

TAFM = Transmission System availability factor for the month, in percent computed in accordance with Appendix-II.

34. Sharing of charges for Intra-State Transmission Network

The Aggregate Revenue Requirement of the Transmission Licensee, as approved by the Commission, shall be shared by all long-term users and medium- term users of the transmission system on monthly basis in the ratio of their respective contracted transmission capacities to the total contracted transmission capacity, in accordance with the following formula:

TCn= (Transmission ARR net of incentive/disincentive) x (NDM/NDY) x CCn/SCC

Where,

TCn = transmission charges for the month payable by the nth long-term user or medium-term user of the transmission system;

Transmission ARR = Aggregate Revenue Requirement of the Transmission Licensee, determined in accordance with Regulation 16 of these Regulations;
CCn = capacity contracted in MW by the nth long-term user or medium-term user of the transmission system during the month;
SCC = sum of capacities contracted in MW by all long-term users and medium-term users of the transmission system during the month:
NDM= Number of days in the month NDY= Number of days in the year
Provided that the TCn shall be payable on monthly basis by each long-term user or medium-term user of the transmission system and shall be collected by the State Transmission Utility (STU).

BGCL the 2nd Transmission licensee shall recover its transmission charges from the BSP(H)CL in 12 equal monthly instalments as per Transmission Service Agreement (TSA). Accordingly, BGCL shall raise its monthly transmission charge bill to BSP(H)CL and BSP(H)CL in turn, having recovered such transmission charges from long-term and medium-term users in the ratio of their respective transmission contracts in accordance with Regulation 34 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2021, shall deposit the billed amount to Bihar Grid Company Limited (BGCL).

The Commission directs the BSPTCL to recover the Transmission Tariff on monthly basis from the Discoms and other Transmission system users in the ratio of their contracted capacity in terms of Regulation 33 and 34 of the BERC (Multi Year Transmission Tariff and SLDC charges) Regulations, 2021.

The Transmission Charges approved are subject to Target Availability of 98% (AC system) as specified in Regulation 16 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations 2021 and recovery of the transmission charges below the level of target availability shall be on pro-rata basis.

The Transmission Tariff applicable for Open Access consumers shall be as approved in the Chapter 8 (Wheeling charges and Open Access charges) of the Discoms (combined) Tariff Order for FY 2024-25.

7. Compliance of Directives

7.1. Background

The Commission in its previous tariff orders including the tariff order dated 21st March, 2023 had issued several directives to the petitioner BSPTCL and had been monitoring the compliance of these directives year after year at the time of annual transmission tariff determination. The Commission has observed that a few of the directives have been fully complied with and some others have been complied partially. However, many of the directives which are very important and key to energy accounting are yet to be complied with. Keeping aside the fully complied directives, non-complied/partially complied directives of the past tariff orders along with a few new directives of the current tariff order are being dealt with in this chapter as under:

7.2. Directive:

7.2.1. Directive 1: Energy Auditing and Transmission Loss

The Commission directed the Petitioner to maintain and submit state energy accounting on monthly basis and also to incorporate the monthly state energy account details in the annual accounts year on year.

BSPTCL has appended the month-wise energy account to the petition. The audited accounts depict quantitative details of transmission loss for the year; however, the month-wise energy account details are not incorporated. The Commission reiterates the directive and directs the petitioner to incorporate the month-wise energy account details in annual accounts for certification by the auditor.

7.2.2. Directive-2: Maintenance of Asset /Property Register

The Commission had directed the BSPTCL to maintain asset/property register showing details of nature of equipment, value of equipment, details of land, extent of land, buildings etc., and shall submit the details along with tariff petition to be filed every year.

BSPTCL submitted that tender Notice No.30/PR/BSPTCL/2020 is floated for engagement of agency for physical verification of assets, identification, valuation and preparation of fixed asset register, however in the absence of sufficient no of bids the tender is cancelled.

BSPTCL has stated that SAP-ERP system was implemented in phased manner to streamline various business processes, including asset management and it is in full-fledged operation from 2022. Since, adoption of ERP system's functionalities in Asset Register was crucial for integrated centralized asset database along-with real-time asset management across the company, as such comprehensive tender for Fixed Assets Register (FAR) could be prepared incorporating modalities of ERP. It is further submitted that following steps are taken to prepare the Fixed Assets Register.

1. BSPTCL has prepared Tender Documents by referring to the specifications of other successful power sector utilities having SAP-ERP system and has undertaken similar project to implement the best practice of assets management and further attract more competent bidders.
2. BSPTCL has also interacted with the potential bidders for a comprehensive overview of the project requirements and to learn constraints faced by them in implementing FAR in different utilities and identifying such areas of improvement required in instant tender.
3. Considering the scope of work and quantum of assets, the entire project is expected to be completed within 24 months from the date of award.

BSPTCL, in view of the above, has requested to consider & allow appropriate time for finalization & submission of FAR.

The Commission has been directing the petitioner to submit asset register year on year from FY 2014-15 onwards and the reply furnished in this regard is unjustifiable and unsatisfactory.

The Commission again directs the BSPTCL to submit the property register showing all the particulars along with subsequent tariff petition for truing up for FY 2023-24 without fail. A status report on preparation of FAR may be furnished periodically.

7.2.3. Directive-3: Meters at interface points of BSPTCL and BGCL

The Commission directed BSPTCL to take joint meter readings at all the interface points of BGCL/BSPTCL/DISCOMs. BSPTCL shall prepare joint protocol with DISCOMs/BGCL for meter calibration/accuracy and meter reading so that the transmission loss in the system can be properly calculated and mismatch in transmission loss reporting is avoided.

It was reported that BSPTCL and BGCL have agreed on joint meter readings and issues/discrepancies if any arising would be resolved by Senior officers of BGCL and BSPTCL jointly and regular meetings between representatives of BSPTCL and BGCL are being held. BSPTCL has submitted the month-wise report of state energy account for FY 2022-23.

The Commission has noted the action taken, however, has observed that month-wise energy account is not authenticated jointly by BSPTCL, BGCL and Discoms. The Commission again directs the petitioner to take joint meter readings at the interface points of BGCL/BSPTCL/DISCOMs and authenticated (duly signed by the competent authority of BSPTCL, BGCL and Discoms). Monthly report shall be submitted to the Commission every month.

7.2.4. Directive-4: Auxiliary consumption and electricity charges

The transmission licensees are directed to take separate electric connection from Distribution licensee for use of electricity within the Grid substation and for recording the electricity charges towards colony consumption and to furnish the details of auxiliary consumption and colony consumption in the prescribed format vide tariff order dated March 7, 2018.

In compliance to the directive, BSPTCL has submitted that 203 meters were obtained from Discoms for recording auxiliary consumption of the GSS and has applied for installation of meters at 3 new GSS and 3 existing GSS.

BSPTCL stated that out of 150 GSS, only 72 GSS have colonies and separate meters for individual houses were obtained for metering own (household) consumption.

The Commission has noted the compliance. The Commission directs the petitioner to regularly monitor the auxiliary consumption and keep it within the specified limit/level.

7.2.5. Directive-5: Standalone accounting statement

BSPTCL was directed to prepare separate books of accounts for Transmission Business and SLDC Business and submit for tariff proceedings of subsequent year onwards duly audited and certified by the Statutory auditor.

BSPTCL prepares joint annual accounts for BSPTCL and SLDC. The Commission, earlier, has determined tariff/charges for SLDC considering the allocation statement of expenses and income. Accordingly, allocation statement of expenses is submitted duly certified by the Statutory Auditor.

The Commission has noted the compliance and reiterates the directive.

7.2.6. Directive-6: Submission of peak and average Loading of Transmission elements

BSPTCL was directed to submit details of peak and average loading of transmission lines and substations on quarterly basis.

BSPTCL had submitted the information on average as well as peak loading of various 220 kV, 132 kV and 33 kV sub-stations for the first quarter of FY 2023-24.

The Commission has noted the compliance. It is observed that the petitioner has not furnished the details for the second quarter of FY 2023-24. The Commission reiterates the directive.

7.2.7. Directive-7: Regulatory Accounting

BSPTCL was directed to prepare and submit the Regulatory Accounts as per BERC (Power Regulatory Accounting) Regulations 2018 in the next tariff proceeding. No action is taken by the utility till to date from the date of notification of regulations.

BSPTCL submitted that the process of preparation of Regulatory Accounts shall be taken up after implementation of SAP/ERP system.

The reply furnished by the utility is not tenable and highly objectionable. The Commission reiterates the directive for compliance for FY 2023-24 failing which appropriate action as per rules may be initiated.

7.2.8. Directive-8: Transmission losses reporting/computation.

Transmission loss is calculated by SLDC considering the data from ABT meters installed on LV side of 33 kV transformers, whereas, the Discoms said to consider the data from feeder meters. It was reported that meters for more than half the feeders are yet to be installed and BSPTCL is in the process of installation of meters on un-metered feeders. In the absence of complete feeder metering and meter readings on LV side of transformers there are errors in computation transmission losses.

The Commission directed the BSPTCL to prepare and maintain the energy account on monthly basis depicting the following details;

1. Energy input in to the state transmission system/network of BSPTCL
2. Energy input in to the state transmission system/network of BGCL
3. Energy input in to the transmission network of BSPTCL from BGCL network
4. Energy input in to the transmission network of BSPTCL at 220kV (source-wise)
5. Energy input in to the transmission network of BSPTCL at 132kV (source-wise)
6. Energy input into the BSPTCL network before the Discoms input/interface metering point
7. Transmission losses in the BSPTCL transmission network.
8. Joint meter readings of all interface points relating to input of BSPTCL network and output at BSPTCL and input interface points of Discoms network shall be furnished duly authenticated by BSPTCL, BGCL and Discoms as the case may be.
9. The metering arrangement shall be made as per the CEA installation and operation of meters regulations 2006 and its amendments thereof.

BSPTCL has submitted the information in tariff petition (Annexure-IX)

The Commission has noted the compliance and reiterates the directive.

Sd/-	**Sd/-**
Parshuram Singh Yadav **Member (Legal)**	**Arun Kumar Sinha** **Member (Technical)**

Annexure-I

List of Participants of Public Hearing
Case No: 25/2023 (BSPTCL)

Appearance on behalf of BSPTCL			
Sl. No	**Name**	**Designation**	**Organization**
1	Shri. Perwez Alam	Chief Engineer (STU)	BSPTCL
2	Shri. Shankar Kumar	Chief Engineer (Project-II)	BSPTCL
3	Shri Kumar Prashant	Chief Engineer (P&E)	BSPTCL
4	Shri Praveen Kumar	EEE/STU	BSPTCL
5	Shri Ravi Shanker Prasad	EEE	BSPTCL
6	Shri Sudhanshu	EEE/STU	BSPTCL
7	Smt. Khushbu Kumari	AEE	BSPTCL
8	Smt. Rinki Rani	AEE	BSPTCL
9	Shri. Mritunjay Kumar	Accountant	BSPTCL
10	Shri. Arvind Tiwari	Consultant	BSPTCL
Appearance on behalf of Stakeholders and General Public			
1	Shri. Deepak Kumar	Chier Engineer (Commercial)	NBPDCL
2	Shri. Purushottam Prasad	Chier Engineer (Commercial)	SBPDCL
3	Shri. Sanjay Bhartiya	Ex. Vice President	BIA