

**BEFORE**  
**THE BIHAR ELECTRICITY REGULATORY COMMISSION**  
**VIDYUT BHAWAN - II, PATNA**

**Petition for**  
**True-Up for FY 2019-20,**  
**Annual Performance Review (APR) for FY 2020-21**  
**And**  
**Determination of Revised ARR and Tariff for FY 2021-22**  
**For**  
**Bihar State Power Transmission Company Limited**  
**(BSPTCL)**  
**Patna**



**Chief Engineer (P&E and Commercial & Regulatory Affairs Cell),**  
**1<sup>st</sup> Floor, Vidyut Bhawan - I,**  
**Jawaharlal Nehru Marg,**  
**Patna - 800 021**

**24<sup>th</sup> December 2020**

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**Before the Bihar Electricity Regulatory Commission,  
Patna**

Filing No.:

Case No.:

IN THE MATTER OF                    **Filing of the Petition for approval of True-up of FY 2019-20, Annual Performance Review (APR) for FY 2020-21, and Revised Aggregate Revenue Requirement (ARR) and Tariff for FY 2021-22 under BERC (Multi-Year Transmission Tariff and SLDC Charges) Regulations, 2018 along with the other guidelines and directions issued by the Hon'ble BERC from time to time and under Sections 45, 46, 47, 61, 62, 64 and 86 of the Electricity Act, 2003 read with the relevant guidelines.**

AND

IN THE MATTER OF                    **Bihar State Power Transmission Company Limited**  
THE APPLICANT                    **(herein after referred to as 'BSPTCL' or 'Petitioner'),**  
**which shall mean for the purpose of this Petition the**  
**Licensee, having its registered office at Vidyut Bhawan**  
**-I, Jawaharlal Nehru Marg, Patna - 800 021**

The Petitioner respectfully submits as under:

1. Pursuant to the enactment of Electricity Act, 2003, Bihar State Power Transmission Company Limited (herein after referred to as 'BSPTCL' or 'Petitioner') is filing this Petition, under Sections 61, 62 and 64 of the Electricity Act, 2003 and the governing Regulations thereof, for approval of True-up of FY 2019-20, Annual Performance Review (APR) for FY 2020-21, and revised Aggregate Revenue Requirement (ARR) and Tariff for FY 2021-22.
2. The Multi-Year Tariff (MYT) Petition for the Control Period from FY 2013-14 to FY 2015-16 was filed by BSPHCL on behalf of all successor Companies on 14<sup>th</sup> November 2012 and accordingly, the Hon'ble Commission had issued common Order for all entities (Tariff Order dated 15<sup>th</sup> March 2013).

3. Thereafter, BSPTCL has been filing separate Tariff Petition for subsequent years. Following is the list of Tariff Petitions filed by BSPTCL and the corresponding Tariff Orders issued by the Hon'ble Commission till date.

<b>Particulars</b>	<b>Petition filed on</b>	<b>Tariff Order issued on</b>
Petition for APR for FY 2013-14 and Revised ARR for FY 2014-15	14 <sup>th</sup> November 2013	28 <sup>th</sup> February 2014
True-up for FY 2013-14, APR for FY 2014-15, Revised ARR for FY 2015-16	3 <sup>rd</sup> December 2014	12 <sup>th</sup> March 2015
True-up for FY 2014-15, APR for FY 2015-16 and approval of ARR for the period FY 2016-17 and Determination of Multi-Year Transmission Tariff for FY 2016-17, 2017-18 and 2018-19	28 <sup>th</sup> December 2015	21 <sup>st</sup> March 2016
True-up for FY 2015-16, APR for FY 2016-17 and Determination of ARR and Tariff for FY 2017-18	30 <sup>th</sup> November 2016	9 <sup>th</sup> March 2017
True-up for FY 2016-17, APR for FY 2017-18 and Determination of ARR and Tariff for FY 2018-19	24 <sup>th</sup> November 2017	24 <sup>th</sup> April 2018
True-up for FY 2017-18, APR for FY 2018-19 and approval of ARR for the Multi-Year Tariff period from FY 2019-20 to FY 2021-22 and Determination of Transmission Tariff for FY 2019-20	30 <sup>th</sup> November 2018	15 <sup>th</sup> February 2019
True-up for FY 2018-19, APR for FY 2019-20 and approval of ARR and Tariff for FY 2020-21	15 <sup>th</sup> November 2019	20 <sup>th</sup> March 2020

4. BSPTCL has filed appeals before the Hon'ble APTEL against the Tariff Orders issued by the Hon'ble Commission. Following are the list of Appeals pending before Hon'ble APTEL

<b>Appeal No.</b>	<b>Appeal Against Tariff Order dated</b>	<b>Date of Filing</b>	<b>Current Status</b>
APL383/2019	The Appellant has filed the Appeal under Section 111 of EA 2003 praying for the modification of Tariff Order dated 07.03.2018 drawn on the grounds of the appeal and setting aside of impugned Order dated	12.02.2019	Next date of hearing: - 01.02.2021

Appeal No.	Appeal Against Tariff Order dated	Date of Filing	Current Status
	20.11.2018 passed in Review Petition No. 15 of 2018.		
DFR No. 2324/2019	The Appellant, in the Appeal, has challenged the legality, validity and propriety of the impugned Tariff Order dated 15.02.2019 in Case No. 51 of 2018 and impugned Order dated 25.07.2019 passed in Review Case No. 12 of 2019.	14/10/2019	Next date of hearing: - 01.02.2021

5. In case the Judgment of the Hon'ble APTEL, in the above-mentioned Appeals is in favour of BSPTCL, the Hon'ble Commission is requested to provide the impact of the desired relief on all the issues raised by BSPTCL in these Appeals, entirely for previous control period (i.e. FY 2016-17, FY 2017-18, FY 2018-19), where the same Regulations were applicable, along with carrying cost in subsequent Tariff Order/s
6. The present Petition is being filed before the Hon'ble Commission for Truing-up of FY 2019-20, Annual Performance Review (APR) of FY 2020-21 and Determination of revised Annual Revenue Requirement (ARR) and Tariff for FY 2021-22, as per procedures outlined in Section 61, 62 and 64, of the Electricity Act 2003, and the governing Regulations thereof, considering the approved values of Tariff Order dated 15<sup>th</sup> February 2019 for Truing-up of FY 2019-20 and ARR of FY 2021-22 and approved values of Tariff Order dated 20<sup>th</sup> March 2020 for APR of FY 2020-21.
7. This Petition has been prepared in accordance with the provisions of Sections 61, 62 and 64 of the Electricity Act, 2003 and relevant provisions of BERC (Multi-Year Transmission Tariff and SLDC Charges) Regulations, 2018 notified by the Hon'ble Commission.
8. The Petitioner along with this Petition is submitting the regulatory formats with data and information to the extent applicable and would make available any further information/additional data required by the Hon'ble Commission

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during the course of proceedings.

9. Due to the unprecedented situation of COVID-19 pandemic and subsequent lockdown imposed in the country, functioning of BSPTCL was severely affected. Even today, where the lockdown is lifted, there are some restrictions imposed in the State, which are still affecting the operations of BSPTCL. BSPTCL during this period was not able to work with full work force which has led to delays in meeting all timelines including the timeline for filing of Tariff Petition. A major impact was seen on the implementation of projects that are being undertaken by BSPTCL. Almost all projects have been delayed from their scheduled completion date at least by 6 months or more. Projects got further delayed in light of severe floods in the months of August and September 2020. This has directly affect the expected capitalisation of projects to be commissioned in FY 2020-21 and FY 2021-22. BSPTCL hence requests the Hon'ble Commission to kindly condone the delay in execution of all projects by a period of at least 6 months or more due to lockdown and subsequent restrictions imposed in the State. BSPTCL requests the Hon'ble Commission to kindly keep these factors into consideration while approving the APR of FY 2020-21 and ARR of FY 2021-22
  
10. The Calendar Year (CY) of 2020 witnessed an extraordinary global crisis in the wake of COVID-19 pandemic, which had significant impact on the society and on public at large. The lockdown imposed by the Central Government in the Country and subsequently by the respective State Governments have had significant financial impact on all stakeholders, including the consumers of BSPTCL. BSPTCL, being the State Transmission Utility (STU), has kept a considerate view regarding the consumers of the State of Bihar while filing this Petition. In view of the above, BSPTCL proposes to claim lower Return on Equity (ROE) as compared to that allowed in MYT Regulations, 2018. This would result in passing on some benefit to the consumers of the State during this difficult period. BSPTCL feel that the impact of the pandemic was marginal in FY 2019-20 but primarily witnessed in FY 2020-21. Going further, we are almost at the end of FY 2020-21, but the pandemic still seems to exist and therefore, it may also have an impact in FY 2021-22. BSPTCL has hence, claimed lower ROE, at the rate of 10% in the Truing-up of FY 2019-20, APR for FY 2020-21 and revised ARR for FY 2021-22, instead of 15.5% on assets capitalised after 01.04.2015 and instead of 14.00% on assets capitalised before 01.04.2015.

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BSPTCL would like to submit that claiming lower ROE at 10% for the financial years under consideration shall not imply that BSPTCL shall continue to claim ROE at 10% in perpetuity. At the time of filing the next Tariff Petition, BSPTCL shall be at liberty to claim ROE either at the reduced rate of 10% or 15.5% as per MYT Regulations, 2018.

11. As mentioned earlier, all the operations of BSPTCL including finalisation of Annual Accounts of FY 2019-20 were affected this year and therefore this has led to a delay in finalisation of Annual Accounts and Audit Report for FY 2019-20. The Ministry of Finance (MoF) considering the situation this year has extended the date of finalisation of Annual Accounts of FY 2019-20 till 31st December 2020. Since the Annual Accounts of FY 2019-20 were not finalised on time, BSPTCL was not in a position to file the Tariff Petition for FY 2021-22 as per timelines prescribed in the MYT Regulations, 2018 (i.e. 15th November 2020). BSPTCL hence request the Hon'ble Commission to condone the delay in filing of Tariff Petition for FY 2021-22

**Prayers to the Hon'ble Commission:**

12. The Petitioner respectfully requests the Hon'ble Commission to:
- a. Admit this Petition;
  - b. Examine the proposal submitted by the Petitioner in the enclosed Petition for a favourable dispensation;
  - c. Pass suitable Orders with respect to the True-up of ARR for FY 2019-20, APR for FY 2020-21 and revised ARR for FY 2021-22 as submitted in this Petition;
  - d. Approve the transmission charges as per the proposal and allow relaxation in tariff norms wherever sought for;
  - e. Pass separate Order for the Petitioner against the present Petition;
  - f. Permit to propose suitable changes to the respective True-up/APR/ARRs, prior to the final approval by the Hon'ble Commission;
  - g. Permit to revise any inadvertent omissions/errors/shortcomings, etc., and accordingly add/change/modify/alter this filing and make further submissions as may be required at a future date;
  - h. Approve open access charges in Tariff Order of BSPTCL, which is to be recovered from open access consumers;
  - i. Pass such Order as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case;

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- j. Pass desired impact of issues raised by BSPTCL in appeals along with carrying cost in ensuing Tariff Order in case the appeals are ruled in favour of BSPTCL;
  - k. To condone the delay in filing of present Tariff Petition for FY 2021-22 due to the work being affected by lockdown in the Country followed by several restrictions in operations of BSPTCL.

Dated: 24<sup>th</sup> December 2020

Deepak Kumar Jha  
Chief Engineer (P&E and Commercial  
& Regulatory Affairs Cell)

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## LIST OF ABBREVIATIONS

A&G	Administrative & General
BSEB	Bihar State Electricity Board
ARR	Aggregate Revenue Requirement
BERC	Bihar Electricity Regulatory Commission
BERC MYT Regulations, 2018	BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018
CEA	Central Electricity Authority
CPI	Consumer Price Index
CWIP	Capital Work in Progress
DPR	Detailed Project Report
EA	Electricity Act
GFA	Gross Fixed Asset
IDC	Interest During Construction
IoWC	Interest on Working Capital
IT	Income Tax
kV	kilo Volt
MAT	Minimum Alternate Tax
MU	Million Units
MW	Mega Watt
MVA	Mega Volt Ampere
MYT	Multi Year Tariff
O&M	Operation & Maintenance
PBT	Profit Before Tax
R&M	Repair & Maintenance
RTC	Round the Clock
SCADA	Supervisory Control and Data Acquisition
STOA	Short Term Open Access
STU	State Transmission Utility
ToD	Time of Day
TSA	Transmission Service Agreement
TSU	Transmission System User
TTSC	Total Transmission System Cost
WPI	Wholesale Price Index

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# 1 Introduction

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## 1.1 Background

The erstwhile Bihar State Electricity Board (hereinafter referred to as 'Board' or 'BSEB') was originally constituted on 1<sup>st</sup> April 1958 under Section 5 of the Electricity (Supply) Act, 1948 and was engaged in the management of electricity generation, transmission, distribution and related activities in the State of Bihar.

Under the 'Bihar State Electricity Reforms Transfer Scheme, 2012', the BSEB was unbundled into five Companies, viz., Bihar State Power (Holding) Company Limited (BSPHCL), Bihar State Power Transmission Company Limited (BSPTCL), Bihar State Power Generation Company Limited (BSPGCL), South Bihar Power Distribution Company Limited (SBPDCL), and North Bihar Power Distribution Company Limited (NBPDC), with effect from 1<sup>st</sup> November 2012 vide Notification No. 17 dated 30<sup>th</sup> October 2012.

'Bihar State Power Transmission Company Limited' or 'BSPTCL' means the Transmission Company to which the Transmission Undertakings of the Board have been transferred in accordance with this Transfer Scheme.

## 1.2 Profile of BSPTCL

Primarily, the transmission of power takes place at 220 kV and 132 kV voltage levels. The number of Grid Sub-stations (GSS) and transformation capacity in MVA as on 31<sup>st</sup> March 2020 and 30<sup>th</sup> September 2020 is provided in the table below:

**Table 1-1: GSS and Power Transformer Capacity in MVA**

Sub-stations	FY 2019-20 (Up to Mar 2020)		FY 2020-21 (Up to Sep 2020)	
	No. of GSS	Capacity (MVA)	No. of GSS	Capacity (MVA)
220/132kV	19	7240	20	7700
132/33kV	125	14,040	126	14850
<b>TOTAL</b>	<b>144</b>	<b>21280</b>	<b>146</b>	<b>22550</b>

The following table shows the line length in Ckt km operational and charged as on 31<sup>st</sup> March 2020 and 30<sup>th</sup> September 2020:

**Table 1-2: Transmission Line Length in Ckt Km**

<b>Transmission Line</b>	<b>FY 2019-20 (Up to Mar 2020)</b>	<b>FY 2020-21 (Up to Sep 2020)</b>
220 kV	4693	4723
132 kV Double Circuit	12001	12134

The power supply position in the State of Bihar is improving and BSPTCL is taking all the required steps to strengthen and develop the electricity infrastructure for end-to-end transmission of power within the State. BSPTCL has almost completed all the projects undertaken in its 12<sup>th</sup> Plan. Further, all the requisite approvals of projects under 13<sup>th</sup> Plan have already been accorded by the Hon'ble Commission vide Tariff Order dated 15<sup>th</sup> February 2019 and Tariff Order dated 20<sup>th</sup> March 2020. Majority of the works under 13<sup>th</sup> Plan have already been initiated during FY 2020-21. The schemes under 13<sup>th</sup> Plan are funded through 80% loan and 20% equity.

### **1.3 Filing of Present Petition**

The present Petition considers the proposal of BSPTCL for True-up of FY 2019-20, APR for FY 2020-21 and revised ARR for FY 2021-22 and thereby determination of tariff for FY 2021-22.

Section 62 of the Electricity Act, 2003 requires the Licensee to furnish details as may be specified by the Hon'ble Commission for determination of tariff. Further, as per the Regulations notified by the Hon'ble Commission, BSEB or its unbundled Companies are required to file Petition for all reasonable expenses, which they believe that they would incur over the next financial year and seek the approval of the Hon'ble Commission for the same. The filing is to be done based on the projections of the expected revenue and costs.

The present Petition is prepared in accordance with the provisions of the following Acts/Regulations namely:

- Electricity Act, 2003;
- BERC (Terms and Conditions for Open Access) Regulations, 2018, as amended time to time
- BERC Multi-Year (Transmission Tariff and SLDC Charges) Regulations, 2018



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BSPTCL has made genuine efforts for compiling all relevant information relating to the True-up/ APR/ARR Petition as required in the Regulations issued by the Hon'ble Commission and has also made every effort to ensure that information provided to the Hon'ble Commission are accurate and free from material errors.

However, there may be certain deficiencies/infirmities in the Petitions owing to the different aspects related with the operations of Transmission Company on independent basis. Hence, BSPTCL prays to the Hon'ble Commission that the information provided be accepted for the current filing and deficiencies, if any, may please be condoned. BSPTCL assures the Hon'ble Commission that appropriate measures have been taken to improve the management information system for improved data collection.

#### **1.4 Contents of the Petition**

The present Petition consist of the following main sections namely:

- Truing-up of FY 2019-20
- Annual Performance Review of FY 2020-21
- Revised Aggregate Revenue Requirement and Tariff for FY 2021-22
- Compliance to Directives

#### **1.5 Approach to the Present Filing**

The Licensee is required to file an application before the Hon'ble Commission for determination of tariff as per Regulation 11.3 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018. The relevant extract is as follows:

*“11.3 An application (along with soft copy) for determination of tariff and charges shall be made by 15th November every year, for Truing up of expenses of previous years, for Annual Performance Review (APR) of the Aggregate Revenue Requirement (ARR) for the current year and determination of ARR and transmission tariff or SLDC charges for the ensuing years of the control period. The application should contain the data relating to each item of the ARR supported with the information/data in the formats Form no- SI to Form no-P12 appended to these Regulations and accompanied by such fees as may be specified under the BERC (Fees, Fines and Charges) Regulations, 2005*

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*as amended from time to time. All the information as required in the formats appended to these Regulations along with justification shall be provided in the main petition.*

*Provided that the Commission may require submission of additional information/data required for determination of ARR and tariff."*

In accordance with the above provisions of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018, BSPTCL is filing the present Petition for Truing-up of FY 2019-20 based on audited accounts of FY 2019-20, APR for FY 2020-21 based on estimates for current year, and determination of revised ARR and tariff for FY 2021-22 based on projections.

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## 2 Truing up for FY 2019-20

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### 2.1 Introduction

BSPTCL has filed Truing-up Petition for FY 2019-20 based on the audited accounts of FY 2019-20. BSPTCL has considered the values approved in ARR of FY 2019-20 vide Tariff Order dated 15<sup>th</sup> February 2019 vis-à-vis values as per audited accounts of FY 2019-20. The Truing-up of FY 2019-20 is to be carried out in accordance with relevant provisions of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018.

Regulation 7 and Regulation 13 (a) to (c) of the BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018 specify:

*“7. Annual Review of Performance and True-up*

*7.1 Where the Aggregate Revenue Requirement and expected revenue from tariff and charges of a Transmission Licensee or SLDC, as the case may be, are covered under a Multi-Year Tariff framework, such Transmission Licensee or SLDC shall be subject to an annual review of performance and True-up during the Control Period in accordance with these Regulations....”*

*“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.*

*(c) Where audited books of account are not available at the time of true-up, provisional books of annual (regulatory) accounts duly approved by the Board of Directors of the applicant company shall be used for the provisional True-up process....”*

Accordingly, BSPTCL has submitted the Truing-up for FY 2019-20 based on the audited annual accounts of FY 2019-20. A copy of audited accounts with Board of Directors approval of FY 2019-20 is attached as **Annexure I**.

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## 2.2 Transmission Losses

BSPTCL submits that the actual transmission loss of BSPTCL system for FY 2019-20 is 3.66%. The following table shows the comparison of approved and actual transmission loss for FY 2019-20:

**Table 2-1: Actual Transmission Loss of BSPTCL for FY 2019-20**

Particulars	FY 2019-20 (Approved)	FY 2019-20 (Actual)
Energy Input (in MU)		31,539.90
Energy Output (in MU)		30,386.48
Transmission Loss (in MU)		1,153.42
Transmission Loss (%)	3.92%	3.66%

The month-wise Transmission Loss for FY 2019-20, i.e., from April 2019 to March 2020 with details of energy input and energy output, as certified by SLDC, is attached as **Annexure II**.

As seen from the above Table, BSPTCL has been able to achieve transmission loss of 3.66%, which is lower than the approved transmission loss of 3.92%. BSPTCL submits that it has installed energy meters at all interface points for computing the correct level of transmission loss during FY 2019-20.

BSPTCL would like to submit that the transmission loss computed from April 2020 onwards is lower than the transmission loss approved by the Hon'ble Commission, and is ranging between 2.50% and 3.50%. The details of Transmission Loss from April 2020 onwards are discussed in detail in the APR of FY 2020-21. The details of metering and energy accounting is elaborated under the Section on Compliance to Directives, submitted along with this Petition.

## 2.3 Capitalization

BSPTCL submits that the capitalization from CWIP as per audited accounts of FY 2019-20 is Rs. 1,888.44 Crore. The following table shows the approved and actual capital expenditure and capitalization claimed in the truing-up of FY 2019-20:

**Table 2-2: Capital Expenditure and Capitalization for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
1	Opening CWIP (A)	1,543.64	2,485.06
2	<b>Capital Investment during the Year (B)</b>	<b>2,893.55</b>	<b>1,695.30</b>
3	<b>Less: Capitalization (C)</b>	<b>1,310.43</b>	<b>1,830.46</b>
	<b>Less: IDC Capitalized (D)</b>	<b>-</b>	<b>57.98</b>
4	Closing CWIP (A+B-C-D)	3,126.76	2,291.92

BSPTCL has considered opening CWIP of Rs. 2,485.06 Crore for FY 2019-20 in line with the closing balance of CWIP approved by the Hon'ble Commission for FY 2018-19 vide Tariff Order dated 20<sup>th</sup> March 2020. The capital expenditure and capitalization incurred during the year is as per audited accounts of FY 2019-20 and accordingly, the closing CWIP for FY 2019-20 works out to Rs. 2,291.92 Crore.

BSPTCL has provided work-wise break-up of capitalization of Rs. 1,888.44 Crore including IDC of Rs. 57.98 Crore for FY 2019-20 as **Annexure III**.

## 2.4 Reconciliation of Capitalization in Accounts

BSPTCL submits the following table for reconciliation of asset capitalization claimed in the True-up and asset capitalization reflecting in audited annual accounts of FY 2019-20:

**Table 2-3: Reconciliation of Capitalization (Asset Addition) (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20
1	Capitalization of Asset (Transfer from CWIP)	1,888.44
2	Add: Value of Land	54.76
3	Add: Direct Addition to GFA	2.81
4	<b>Gross GFA additions as per Audited Accounts</b>	<b>1,946.01</b>
5	Less: Disposal/Sale/Transfer of Assets	11.10
6	<b>Net GFA addition as per Audited Accounts</b>	<b>1,934.90</b>

## 2.5 Gross Fixed Asset

BSPTCL has considered the opening GFA for FY 2019-20 in line with the closing GFA approved by the Hon'ble Commission in True-up of FY 2018-19 in Tariff Order dated 20<sup>th</sup> March 2020.

The addition to GFA and Interest During Construction (IDC) is considered based on the audited accounts for FY 2019-20. The total asset capitalised during FY 2019-20 is Rs. 1,888.44 Crore, which includes IDC of Rs. 57.98 Crore. BSPTCL has adjusted the disposal/sale/transfer of assets during the year. Accordingly, BSPTCL has arrived at closing GFA of FY 2019-20. The following table shows the schedule of Gross Fixed Asset claimed in True-up of FY 2019-20:

**Table 2-4: Gross Fixed Asset claimed in True-up of FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in True-up of FY 2019-20
1	Opening GFA (A)	8,518.00	7,617.40*
2	Add: Additions to GFA (excluding IDC) (B)	1,310.43	1,830.46
3	Add: Direct Additions to GFA (C)		2.81
4	Add: Net Value of Land (D)		54.76
5	Less: Disposal/Sale/ Transfer of Asset (E)		11.11
6	Add: Interest During Construction (F)		57.98
7	<b>Closing GFA (A+B+C+D-E+F)</b>	<b>9,828.43</b>	<b>9,552.30</b>

*\*Closing balance of FY 2018-19 as approved in True-up*

BSPTCL has considered the closing GFA of **Rs. 9,552.30 Crore** for FY 2019-20, as computed in the table above. The Hon'ble Commission is requested to approve asset addition, IDC during the year, and closing GFA as claimed in the table above.

The work-wise break-up of IDC during the year is attached as **Annexure III**.

## 2.6 Scheme-wise Capitalisation during FY 2019-20

As stated in the Tables above, BSPTCL has capitalised net amount of Rs. 1,934.90 Crore including IDC after deducting disposal/sale/transfer of asset during the year as per

audited accounts of FY 2019-20. The following Table shows the scheme-wise capitalisation incurred during the year.

**Table 2-5: Scheme wise Capitalisation for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	Claimed in Truing-up of FY 2019-20
1	Schemes under State Plan	949.32
2	Schemes under BRGF	419.51
3	Schemes under IRF	13.67
4	Schemes under ADB	388.91
5	Schemes under Deposit works	38.44
6	Schemes under PSDF	20.61
	<b>Total Scheme-wise Capitalisation</b>	<b>1,830.46</b>
7	Interest during Construction (IDC)	57.98
	<b>Total Capitalisation transferred from CWIP</b>	<b>1,888.44</b>
8	Add: Assets directly transferred to GFA including Land	57.57
9	Less: Disposal/Sale/ Transfer of Asset	11.11
	<b>Total Capitalisation as per Accounts</b>	<b>1,934.90</b>

## 2.7 Depreciation

BSPTCL has computed depreciation for FY 2019-20 in accordance with Regulation 23 of the BERG MYT Regulations, 2018. The relevant provisions are as follows:

### *"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.*

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*The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. The Transmission Licensee or SLDC, as the case may be, shall submit separate detail of fully depreciated asset along with year of commissioning and year of attaining ninety percent depreciation with the tariff petition.*

*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.*

*Provided further that the cost of lease hold land shall be amortised evenly within the leased period.*

*(iv) The original capital cost of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Government / Bihar Electricity Regulatory Commission.*

*(v) Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis”*

As stated earlier, BSPTCL has considered the opening GFA for FY 2019-20 in line with the closing GFA approved by the Hon’ble Commission in Trueing-up of FY 2018-19. BSPTCL has reduced the net amount of land from the opening balance approved by the Hon’ble Commission to arrive at GFA net of land.

BSPTCL has computed the depreciation to be considered in the true-up of FY 2019-20 based on weighted average depreciation rate on average depreciable GFA. BSPTCL has considered weighted average rate of 5.29% on opening GFA and 4.02% on addition during the year worked out on the basis of audited accounts of FY 2019-20. 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 2019-20. The following Table shows the net depreciation considered by BSPTCL for FY 2019-20:



**Table 2-6: Depreciation considered in Truing-up of FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20 (Approved)	FY 2019-20 (True-up)
1	Opening GFA	8,518.00	7,617.40*
2	Less: Value of Land	1,405.30	1,415.01
3	Value of GFA net of Land (1-2)	7,112.70	6,202.39
4	Addition during the year (excluding land and IDC)	1,280.43	1,833.27
5	Add: IDC	-	57.98
6	Less: Adjustment for asses sold/disposed		11.11
7	Closing GFA (3+4+5)	8,393.13	8,082.53
8	Average GFA	7,752.92	7,142.46
9	Weighted average rate of depreciation on opening GFA	5.13%	5.29%
10	Weighted average rate of depreciation on addition during the year	3.77%	4.02%
11	Depreciation ((3*9) + ((4+5-6) *10))	413.15	403.74
12	Opening Grants**	1,919.09	1,856.40*
13	Assets capitalised funded through grants	19.02	20.61
14	Asset capitalised through deposit works		38.44
15	Total Grants**	1,938.11	1,915.45
16	Average Grants**	1,928.60	1,885.93
17	Deprecation on Grants ((12*9) + (13+14) *10))	99.17	100.60
<b>19</b>	<b>Net Depreciation considered in ARR (11-17)</b>	<b>313.98</b>	<b>303.14</b>

\*Closing balance of FY 2018-19 as approved in True-up

\*\*Grants include consumer contribution and deposit works

**The Hon'ble Commission is requested to approve Depreciation of Rs. 303.14 Crore in Truing-up of FY 2019-20.**

## 2.8 Interest and Finance Charges

BSPTCL has considered normative opening balance of loan for FY 2019-20 at Rs. 2,427.25 Crore, which is equal to the closing balance of normative loan approved by the Hon'ble Commission in Truing-up of FY 2018-19. As stated earlier, net asset capitalized during FY 2019-20 is Rs. 1,934.90 Crore as per audited annual accounts for FY 2019-20.

Regulation 24 (j) specifies that "addition to loan during the year for interest purpose will be restricted to the quantum of assets capitalised and put to use". Further, BSPTCL has reduced

the amount capitalised on account of grant received from PSDF and Deposit works for the purpose of funding.

None of the work from 13<sup>th</sup> Plan was capitalised in FY 2019-20 and therefore, BSPTCL has considered the normative debt: equity ratio of 70:30. However, from FY 2020-21 and onwards the debt: equity ratio is considered as 80:20.

BSPTCL has therefore, considered loan addition at 70% of the actual capitalisation and equity addition at 30% of capitalisation during FY 2019-20.

**Table 2-7: Loan and Equity additions during FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20
1	Capitalization during FY 2019-20	1,934.90
2	Less: Grant	20.61
3	Less: Works carried out under Deposit Works	38.44
4	Net Capitalization (A)	1,875.85
5	<b>Equity Considered (30% of A)</b>	<b>562.75</b>
6	<b>Debt Considered (70% of A)</b>	<b>1,313.09</b>

BSPTCL has considered repayment of loans equivalent to Depreciation worked out in Truing-up of FY 2019-20 in this Chapter, in accordance with Regulation 24 (e) of BERC MYT Regulations, 2018.

As clarified in previous Petition and Tariff Order, the outstanding loan of BSPTCL is only against Asian Development Bank (ADB). During FY 2019-20, BSPTCL did not avail of additional loan from other sources. Hence, the weighted average interest rate considered for computation of interest is equal to the rate of interest on ADB loan.

It is further submitted that as per audited accounts, the interest rate of ADB loan is 13.00%. BSPTCL has considered the same interest rate on loan for computation of Interest and Finance Charges.

The following Table shows the computation of Interest on Loan for FY 2019-20 in accordance with Regulation 24 (g) of the BERC MYT Regulations, 2018. BSPTCL has claimed other finance charges in line with the amounts reflecting in audited accounts of FY 2019-20.

**Table 2-8: Interest on Loan computed for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
1	Opening Loan	2,933.46	2,427.25
2	Addition during the year	983.59	1,313.09
3	Normative Repayment (Equal to Depreciation)	313.98	303.14
4	Closing Loan (1+2-3)	3,603.07	3,437.21
5	Average Loan	3,268.26	2,932.23
6	Interest Rate (%)	10.50%	13.00%
7	Interest on Loan	343.17	381.19
8	Other Finance Charges	-	0.02
9	<b>Interest and Finance Charges (7+8)</b>	<b>343.17</b>	<b>381.21</b>

The Hon'ble Commission is requested to approve Interest on Loan and Finance Charges of Rs. 381.21 Crore in Truing-up of FY 2019-20.

## **2.9 Operation and Maintenance Expenses**

### **2.9.1 Normative Operation and Maintenance (O&M) Expenses**

Regulation 21 of BERG MYT Regulations, 2018, specifies that the Hon'ble Commission shall stipulate a separate trajectory of norms for each of the components, viz., Employee expenses, R&M expenses and A&G expenses, which shall be defined in terms of number of personnel per Ckt. km, number of personnel per bay along with annual expenses per personnel, combination of A&G expenses per personnel, and A&G expenses per substation, and R&M expenses as percentage of Gross Fixed Assets.

#### **Normative Employee Expenses**

The Hon'ble Commission in Tariff Order dated 15<sup>th</sup> February 2019 stipulated a separate trajectory of norms for Employee Expenses namely: Norms for No. of personnel per Ckt/km and No. of personnel per substation and therefore, annual expenses per personnel. The Hon'ble Commission adopted a ratio of 45% of the total no. of the employees as a part of norms for substation and 55% personnel as a part of norms for Ckt/km for the purpose of calculation of norms.

The following Table shows the base value of norms computed by the Hon'ble Commission in Tariff Order dated 15<sup>th</sup> February 2019 for FY 2018-19:

**Table 2-9: Base value norms for Employee Expenses**

Sl. No.	Particulars	FY 2018-19
1	Number of personnel per Ckt/km (55%)	0.0822
2	Number of personnel per substation (45%)	6.6427
3	Annual expenses per personnel (Rs. Lakh)	7.461

Regulation 21.1 of BERC MYT Regulations, 2018 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:*

$$EMP_n = (EMP_b * CPI \text{ inflation}) + Provision$$

*Where:*

*EMP<sub>n</sub> : Employee expense for the year n*

*EMP<sub>b</sub> : Employee expense as per the norm*

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

In accordance with the above Regulation, BSPTCL has considered CPI inflation of average of preceding three years (i.e., FY 2016-17, FY 2017-18 and FY 2018-19) for escalating base norms of employee expenses for FY 2019-20. The following Table shows the escalation considered on base norms for computation of employee expenses:

**Table 2-10: CPI Inflation for FY 2019-20**

Particulars	Actual			
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Annual Average CPI	265	276	284	300
CPI Inflation		4.12%	3.08%	5.45%
<b>Average CPI Inflation for last three years</b>				<b>4.22%</b>

BSPTCL has hence, considered inflation rate of 4.22% on base norms for computation of employee expenses for FY 2019-20.

BSPTCL has worked out the employee expenses for FY 2019-20 in line with the methodology specified in Regulation 21.1 and as per the approach adopted by the Hon'ble Commission in previous Tariff Order. The following table shows the employee expenses considered in Truing-up of FY 2019-20 on normative basis.

**Table 2-11: Normative Employee expenses for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	Base Norm	FY 2019-20	
			Approved in Tariff Order dated 15.02.2019	Claimed in Truing Up for FY 2019-20
1	Average annual CPI index		4.28%	4.22%
2	Norms-Number of personnel per Ckt/km	0.0822	0.086	0.086
3	Norms-Number of personal per substation	6.643	6.927	6.923
4	Transmission line in Ckt KM		15500	16694
5	No of substations		146	144
6	Norms-Annual expenses per personnel (Rs. lakh)	7.4610	7.7802	7.7756
7	Employee cost (Number of personal per Ckt/km basis) $(2*4*6)/100$ (Rs. Crore)		103.37	111.20
8	Employee cost (Number of personal per substation basis) $(3*5*6)/100$ (Rs. Crore)		78.69	77.52
9	<b>Total Employee cost for the year (7+8) (Rs. Crore)</b>		<b>182.06</b>	<b>188.70</b>

**The Hon'ble Commission is requested to consider Normative Employee Cost of Rs. 188.70 Crore in Truing-up of FY 2019-20.**

### **Normative Repairs and Maintenance Expenses (R&M)**

Regulation 21.2 of the BERC MYT Regulations, 2018 specifies R&M expenses as percentage of opening gross fixed assets (excluding land cost) for estimation of R&M expenses. Regulation 21 (i) specifies that the norms shall be determined based on audited accounts of last three years. The Hon'ble Commission in Tariff Order dated 15<sup>th</sup> February 2019 computed the 'K' factor (i.e., R&M norm) based on available three

(3) years audited accounts from FY 2015-16 to FY 2017-18. The Hon'ble Commission considered 'K factor' of 1.36% for the Control Period from FY 2019-20 to FY 2021-22 in MYT Order.

BSPTCL has considered 'K factor' of 1.36% as approved in MYT Order dated 15<sup>th</sup> February 2019 and applied the same on the Opening GFA (net of Land) for computation of R&M expenses for FY 2019-20. The following table shows the R&M expenses considered in Truing-up of FY 2019-20 in line with the methodology specified in Regulation 21.2 of MYT Regulations, 2018:

**Table 2-12: Normative R&M expenses for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
1	Opening GFA (net of land)	7,112.70	6,202.39
2	% on GFA	1.36%	1.36%
3	<b>R&amp;M expenses for the year</b>	<b>96.73</b>	<b>84.35</b>

**The Hon'ble Commission is requested to consider Normative R&M Expenses of Rs. 84.35 Crore in Truing-up of FY 2019-20.**

### **Normative Administration and General Expenses (A&G)**

The Hon'ble Commission in Tariff Order dated 15<sup>th</sup> February 2019 has computed base value norms for A&G expenses in terms of A&G expense per personnel and A&G expense per substation. The following Table shows the norms stipulated by the Hon'ble Commission in the previous Tariff Order:

**Table 2-13: Base value norms for A&G Expenses**

Sl. No.	Particulars	FY 2018-19
1	A&G Expenses per personnel	0.9996
2	A&G Expenses per sub-station (Rs. Lakh)	12.0266

Regulation 21.3 of BERC MYT Regulations, 2018 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:*

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + Provision$$

*Where:*

*A&G<sub>n</sub>: A&G expense for the year n*

*A&G<sub>b</sub>: 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 has considered average escalation of CPI and WPI indices with weightage of 40:60 respectively for immediately preceding three years (i.e., FY 2016-17, FY 2017-18 and FY 2018-19) on base norm of A&G expenses, as shown in the Table below:

**Table 2-14: CPI: WPI Inflation considered for FY 2019-20**

Particulars	Actual			
	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Annual Average CPI Index	265	276	284	300
CPI Inflation		4.12%	3.08%	5.45%
Annual Average WPI Index	110	112	115	120
WPI Inflation		1.73%	2.92%	4.28%
<b>Average WPI: CPI (60:40) Inflation for preceding three years</b>				<b>3.47%</b>

The following table shows the A&G Expenses considered in Truing-up of FY 2019-20 in line with the methodology specified in Regulation 21.3 of MYT Regulations, 2018:

**Table 2-15: Normative A&G Expenses for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	Base Norms	FY 2019-20	
			Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
1	Average annual CPI&WPI index		2.70%	3.47%
2	Norms-A&G Expenses per personal	0.9996	1.0266	1.0343

Sl. No.	Particulars	Base Norms	FY 2019-20	
			Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
3	Norms-A&G Expenses per substation (Rs. Lakh)	12.0266	12.3513	12.4443
4	No. of employees		2589	2335
5	No of substations		146	144
6	A&G Expenses (No. of employees basis) (2*4) (Rs. Crore)		26.58	24.15
7	A&G Expenses (No of substations basis) (3*5) (Rs. Crore)		18.03	17.92
8	<b>Total A&amp;G Expenses for the year (Rs. Crore) (6+7)</b>		<b>44.61</b>	<b>42.07</b>

The Hon'ble Commission is requested to consider Normative A&G Expenses of Rs. 42.07 Crore in Truing-up of FY 2019-20.

### Normative O&M Expenses

The following Table shows the normative O&M expenses as computed by BSPTCL in the above Tables:

**Table 2-16: Normative O&M Expenses for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20
1	Employee expenses	188.70
2	R&M expenses	84.35
3	A&G expenses	42.07
	<b>Total O&amp;M Expenses</b>	<b>315.13</b>

## 2.9.2 Actual Operation and Maintenance (O&M) Expenses

### Actual Employee Expenses

It is submitted that that employee expenses primarily include costs towards salaries, dearness allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity, etc.



The following Table shows the actual employee expenses as reflecting in audited accounts of FY 2019-20. BSPTCL has adjusted the employee cost of SLDC from the total employee cost as reflecting in audited accounts of FY 2019-20. The employee cost of SLDC has been claimed separately in Tariff Petition of SLDC.

**Table 2-17: Actual Employee expenses for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20
1	Salaries	127.19
2	Overtime	2.63
3	Dearness Allowance	18.22
4	Other Allowance	19.35
5	Medical Expense Re-imburement	0.62
6	Staff Welfare Expenses	0.33
	<b>Total Other Employee Cost</b>	<b>168.33</b>
7	Add: Terminal Benefits	67.80
8	Less: Employee cost of SLDC	5.10
	<b>Total Actual Employee Cost of BSPTCL</b>	<b>231.03</b>

### Actual R&M Expenses

BSPTCL has initiated a major drive for maintenance and up-keep of its existing transmission assets and also incurred substantial capital expenditure in improvement of existing intra-State transmission infrastructure to improve transmission system reliability matching with short/long-term demand of the State.

The following Table shows the actual R&M expenses for FY 2019-20 as reflecting in audited accounts of FY 2019-20.

**Table 2-18: Actual R&M expenses for FY 2019-20 (Rs. Crore)**

<b>Sl. No.</b>	<b>Particulars</b>	<b>FY 2019-20</b>
1	Plant and Machinery	22.23
2	Building	1.79
3	Civil Works	2.56
4	Hydraulic Works	0.00
5	Line Cable Net Works	5.89
6	Vehicles	0.00
7	Furniture and Fixture	0.00
8	Office Equipment	0.13
	<b>Total R&amp;M Expenses</b>	<b>32.60</b>
	Less: R&M Cost of SLDC	-
	<b>Total R&amp;M Expenses of BSPTCL</b>	<b>32.60</b>

### **Actual A&G Expenses**

A&G Expenses mainly comprise rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and Holding Company expenses and other debits.

The following Table shows the actual A&G expenses for FY 2019-20. BSPTCL has adjusted the A&G expenses of SLDC from the total A&G expenses as reflecting in audited accounts of FY 2019-20. The A&G expenses of SLDC has been claimed separately in Tariff Petition of SLDC.

**Table 2-19: Actual A&G expenses for FY 2019-20 (Rs. Crore)**

<b>Sl. No.</b>	<b>Particulars</b>	<b>FY 2019-20</b>
1	Rent, Rates & Taxes	2.01
2	Insurance	9.76
3	Telephone charges, Postage & Telex Charges	0.48
4	Legal Charges.	0.48
5	Audit Fees	0.04
6	Consultancy Charges	1.13
7	Conveyance & Travel	10.90
8	Fees and Subscription	0.65
9	Printing and Stationery	0.36
10	Entertainment Charges	0.37
11	Expenditure on CSR	5.35
12	Electricity Charges	10.12
13	Security Expenses	8.52
14	Miscellaneous Expenses	0.62
15	Other A&G expenses	0.40
16	Less: A&G Expenses of SLDC	0.33
	<b>Total actual A&amp;G expenses</b>	<b>50.86</b>

### **Actual O&M Expenses**

The following Table shows the actual O&M expenses of BSPTCL as reflecting in audited accounts of FY 2019-20 after adjustment of SLDC expenses.

**Table 2-20: Actual O&M expenses for FY 2019-20 (Rs. Crore)**

<b>Sl. No.</b>	<b>Particulars</b>	<b>FY 2019-20</b>
1	Employee expenses	231.03
2	R&M expenses	32.60
3	A&G expenses	50.86
	<b>Total O&amp;M Expenses</b>	<b>314.49</b>

**The Hon'ble Commission is requested to consider Actual O&M Expenses of Rs. 314.49 Crore in Truing-up of FY 2019-20.**

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## Holding Company Expenses

BSPTCL submits that expenses of BSP(H)CL, which is the Holding Company of all the State Utilities and Generating Company, is recovered from its subsidiary Companies. The cost sharing between the subsidiary Companies including BSPTCL is as per the amount of equity shares issued by the Holding Company to the Subsidiary Company. In light of the above, all the Utilities have to bear the cost of the Holding Company. BSPTCL is claiming Holding Company expenses separately in line with the methodology adopted in previous Tariff Orders. BSPTCL has claimed the Holding Company Expenses in line with the amount reflecting in audited accounts of FY 2019-20, as shown in the Table below:

**Table 2-21: Holding Company Expenses for FY 2019-20 (Rs Crore)**

Sl. No.	Particulars	FY 2019-20 (Approved)	FY 2019-20 (Claimed in True-Up)
1	Holding Company Expenses for FY 2019-20	10.63	11.96

**The Hon'ble Commission is requested to approve Holding Company Expenses of Rs. 11.96 Crore in Truing-up of FY 2019-20.**

### 2.10 Return on Equity

BSPTCL has considered closing equity of Rs. 375.41 Crore as on 31<sup>st</sup> March 2015 (approved in the True up for FY 2014-15) as opening equity for FY 2015-16 in respect of assets capitalised before 31<sup>st</sup> March 2015.

Further, in respect of projects commissioned with effect from 1<sup>st</sup> April 2015, the opening equity is considered at Rs. 997.27 Crore based on the closing equity approved in true up for FY 2018-19 vide Tariff Order dated 20<sup>th</sup> March 2020. The addition to equity during FY 2019-20 is considered at Rs. 562.75 Crore as worked out in Table 2-7: Loan and Equity additions during FY 2019-20 (Rs. Crore)Table 2-7 of this Petition.

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...”

As discussed earlier, BSPTCL requests the Hon’ble Commission to consider rate of ROE at 10% for FY 2019-20 for computation of Return on Equity.

BSPTCL has considered the MAT rate of 17.47% as approved by the Hon’ble Commission for FY 2019-20 in Tariff Order dated 20<sup>th</sup> March 2020 and in line with the actual MAT rate applicable for FY 2019-20 as per audited accounts.

The following table shows the Return of Equity computed by BSPTCL for FY 2019-20:

**Table 2-22: Return on Equity for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
1	Equity as on 31.03.2015	375.41	375.41
2	Rate of Return on Equity	14.00%	10.00%
3	Tax/MAT rate %	21.55%	17.47%
4	Pre-tax Rate of return on equity (2/ (1-3))	17.85%	12.12%

5	Return on equity (1*4)	67.01	45.49
6	Opening equity	1283.69	997.27
7	Addition during the year	307.82	562.75
8	Closing Equity (6+7)	1591.51	1,560.02
9	Average equity (6+8)/2	1437.60	1,278.65
10	Rate of Return on equity	15.50%	10.00%
11	Tax/MAT rate %	21.55%	17.47%
12	Pre-tax Rate of return on equity (10/ (1-11))	19.76%	12.12%
13	Return on equity (9*12)	284.07	154.93
<b>14</b>	<b>Total Return on equity (5+13)</b>	<b>351.08</b>	<b>200.42</b>

**The Hon'ble Commission is requested to approve Return on Equity of Rs. 200.42 Crore in Truing-up of FY 2019-20.**

## **2.11 Interest on Working Capital**

Regulation 26 of the BERC MYT Regulations, 2018 provides for computation of Interest on Working Capital for the Control Period. The relevant extracts are as follows:

*"26 Interest on working Capital*

*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 @ 15% of O&M expenses for one month.*

*Less:*

*(iv) Depreciation 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."

In accordance with the above provisions, BSPTCL has computed the interest on working capital for FY 2019-20. 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.

BSPTCL has computed the weighted average of SBI 1-year MCLR for FY 2019-20 as available on SBI website (<https://www.sbi.co.in/web/interest-rates/interest-rates/mclr-historical-data?inheritRedirect=true>). The following Table shows the weighted average interest rate for FY 2019-20:

**Table 2-23: Average One-year MCLR rate of Interest**

Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19
8.50%	8.45%	8.45%	8.40%	8.25%	8.15%
Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20
8.05%	8.00%	7.90%	7.90%	7.85%	7.75%
<b>Weighted Average One-year MCLR Interest rate</b>					<b>8.16%</b>

BSPTCL has added 150 basis points as provided in the Regulations to average interest rate computed above. BSPTCL has therefore considered interest rate of 9.66% (8.16%+1.50%) for computation of interest on working capital for FY 2019-20. The maintenance spares are considered at 15% of 1-month O&M expenses, in accordance with the Regulations.

BSPTCL has computed the working capital and interest on working capital considering the expenses as reflected on audited accounts of FY 2019-20 at an interest rate of 8.50% for FY 2019-20 as given in the Table below:

**Table 2-24: Interest on Working Capital for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
1	Receivables equivalent to two (2) months of Transmission Charges	213.20	167.05
2	O&M Expenses of one month	27.84	27.26
3	Maintenance spares@ 1% of Opening GFA with 6% Escalation	4.18	4.09
4	Less: Depreciation, RoE, and Contribution to Contingency Reserves for 2 months	110.84	83.93
<b>5</b>	<b>Total Working Capital</b>	<b>134.37</b>	<b>114.47</b>
6	Rate of Interest on working Capital (%)	10.00%	9.66%
<b>7</b>	<b>Interest on Working Capital to be claimed</b>	<b>13.44</b>	<b>11.05</b>

The Hon'ble Commission is requested to approve Interest on Working Capital of Rs. 11.05 Crore in Truing-up of FY 2019-20.

## 2.12 Incentive for Transmission Availability

BSPTCL has claimed incentive on Transmission Availability Factor (TAF) for FY 2019-20 as per Regulation 16 of BERC MYT Regulations, 2018.

The incentive computation is as per the Formula prescribed in Regulation 33.2 of BERC (Multi Year Transmission Tariff and SLDC Charges) Regulations, 2018 for FY 2019-20. The following table shows the month-wise Transmission availability achieved by BSPTCL during FY 2019-20:

**Table 2-25: Month-wise Transmission Availability**

April-19	May-19	June-19	July-19	Aug-19	Sep-19
99.30%	99.94%	99.63%	99.41%	99.47%	99.09%
Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20
99.48%	99.48%	99.45%	99.50%	99.50%	99.51%



Thus, the actual TAF achieved by BSPTCL in FY 2019-20 works out to 99.48%. The SLDC Certificate for actual TAF achieved by BSPTCL in FY 2019-20 is annexed as **Annexure IV**.

For computation of Incentive on account of achieving higher than target TAF in FY 2019-20, BSPTCL has considered target availability of 99% as specified in Regulation 16.1 of BERC Multi Year Transmission Tariff and SLDC Charges Regulations, 2018 as shown in Table below:

**Table 2-26: Incentive Computation on Transmission Availability (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20
		To be claimed in True-up
1	Transmission Availability for FY 2019-20	99.48%
2	Target Availability	99.00%
3	Additional Achievement	0.48%
4	Annual Transmission Charges	1,132.56
5	<b>Incentive for Target Availability</b>	<b>5.44</b>

**The Hon'ble Commission is requested to approve Incentive on Target availability of Rs. 5.44 Crore in Truing-up of FY 2019-20.**

### **2.13 Incentive for Transmission Losses**

Hon'ble Commission had approved transmission loss of 3.92% in MYT Order dated 15<sup>th</sup> February 2019 for entire Control Period. The actual transmission loss is coming out to 3.66%. Accordingly, BSPTCL has claimed incentive on Transmission Losses of FY 2019-20 as per Regulations 38 of BERC MYT Regulations, 2018. The relevant clause is as follows:

*"38.1 The Transmission Licensee shall be entitled to incentive/disincentive on account of deviation from target availability as well as transmission Loss target set by commission.*

*However, the incentive/disincentive on account of deviation from transmission loss target shall be +/- 0.01% of ARR for deviation of 0.01% of transmission loss limited to +/- 2% of the ARR.*

*The transmission charges referred to in Regulation 33 of these Regulations are inclusive of such incentives and disincentives on account of availability of system...."*

In line with the approach specified in the above Regulations, BSPTCL has computed the Incentive on Transmission Losses for FY 2019-20, as shown in the Table below:

**Table 2-27: Incentive Computation on Transmission Losses**

Sl. No.	Particulars	FY 2019-20
		To be claimed in True-up
1	Approved Transmission Loss for FY 2019-20	3.92%
2	Actual Transmission Loss of FY 2019-20	3.66%
3	Incentive on Transmission Loss (%)	0.26%
4	Total ARR Claimed for FY 2019-20	1,132.56
5	<b>Incentive for Transmission Loss (Rs. Crore)</b>	<b>2.94</b>

## 2.14 Non-Tariff Income

BSPTCL has considered the Non-Tariff Income of Rs. 98.31 Crore, reflecting in audited accounts of FY 2019-20. The following Table shows the break-up of Non-Tariff Income for FY 2019-20. BSPTCL submits that the Other Transmission/Open Access Charges coming under Non-Tariff Income includes Open Access Charges.

**Table 2-28: Non-Tariff Income for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
1	Income from sale of Scrap		5.53
2	Lease Rental Income		0.00
3	Interest Income		65.11
4	Other Transmission/Open Access Charges		19.52
5	Income from Tax Refund		0.00
6	Supervision Charges		6.41
7	Interest on Loan and Advances to Staff		0.00
8	STU Charges		0.82
9	Miscellaneous Receipts		0.80
10	Application fee Received		0.10

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
	<b>Total Non-Tariff Income</b>	<b>76.50</b>	<b>98.31</b>

Note: excluding Deferred Income of Rs. 71.16 crore

**The Hon'ble Commission is requested to approve Non-Tariff Income of Rs. 98.31 Crore in Truing-up of FY 2019-20.**

## 2.15 Sharing of Gains and Losses

Regulation 10 of BERG MYT Regulations, 2018 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) Two-third 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 one-third 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) One-third 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, as the case may be;*

*(ii) The balance two-third 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."*

In accordance with the above Regulations, BSPTCL has claimed sharing of gains and losses on account of O&M expenses for FY 2019-20. The following Table shows the sharing of gains and losses as claimed in True-up of FY 2019-20.

**Table 2-29: Sharing of Losses / (Gains) for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	Normative Expenses (A)	Actual Expenses (B)	Loss / (Gains) (C= (B-A))	Losses / (Gains) to be retained (C*1/3)	Losses / (Gains) to be passed on (C*2/3)
1	Employee Expenses	188.70	231.03	42.32	14.11	28.21
2	R&M Expenses	84.35	32.60	(51.75)	(17.25)	(34.50)
3	A&G Expenses	42.07	50.86	8.79	2.93	5.86
8	<b>Total O&amp;M Expenses</b>	<b>315.59</b>	<b>314.49</b>	<b>(0.64)</b>	<b>(0.21)</b>	<b>(0.43)</b>

BSPTCL requests the Hon'ble Commission to consider the gain of **Rs. 0.43 Crore** on account of O&M expenses in True-up of FY 2019-20.

## 2.16 Revenue from Transmission Charges

The following table shows the revenue earned by BSPTCL from Transmission Charges during FY 2018-19:

**Table 2-30: Revenue from Transmission Charges for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2019-20	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2018-19
1	Revenue from NBPDCCL		455.01
2	Revenue from SBPDCL		534.14
3	Revenue from Railways		13.18
4	<b>Total Revenue from Transmission Charges</b>	<b>1,279.20</b>	<b>1,002.32</b>
5	Add: Surplus of FY 2017-18	(276.89)	-
6	<b>Net Revenue to be recovered</b>	<b>1,002.32</b>	<b>1,002.32</b>

As seen from the table above, BSPTCL has booked revenue of Rs. 1,002.32 Crore, which is in line with the revenue approved by the Hon'ble Commission in the Tariff Order dated 15<sup>th</sup> February 2019.

The Hon'ble Commission is requested to approve Revenue from Transmission charges of Rs. 1,002.32 Crore for Truing-up of FY 2019-20.

## 2.17 Revenue Gap/(Surplus) for FY 2019-20

BSPTCL has considered the components of ARR as discussed in this Chapter and has adjusted the revenue as reflecting in audited accounts of FY 2019-20 to arrive at Revenue Gap/(Surplus) for FY 2019-20. The following Table shows the Revenue Gap/(Surplus) for FY 2019-20:

**Table 2-31: Revenue Gap/(Surplus) for FY 2019-20 (Rs. Crore)**

Sl. No.	Particulars	FY 2018-19	
		Approved in Tariff Order dated 15.02.2019	Claimed in Truing-up of FY 2019-20
1	Employee Expenses	182.06	188.70
2	R&M Expenses	96.73	84.35
3	A&G Expenses	44.61	42.07
4	Share of Holding Company Expenses	10.63	11.96
<b>5</b>	<b>Total O&amp;M Expenses</b>	<b>334.04</b>	<b>327.09</b>
6	Return on Equity	351.08	200.42
7	Depreciation	313.99	303.14
8	Interest on Loan Capital and Finance Charges	343.17	381.21
10	Interest on Working Capital	13.44	11.05
11	Sharing of Losses / (Gains)	-	(0.43)
12	Incentive for Transmission Availability	-	5.44
13	Incentive for Transmission Losses		2.94
	<b>Total Expenditure</b>	<b>1,355.71</b>	<b>1,230.87</b>
14	Less: Non-Tariff Income	76.50	98.31
<b>15</b>	<b>Net ARR for Transmission</b>	<b>1279.20</b>	<b>1,132.56</b>
<b>16</b>	<b>Add: Revenue Gap/(Surplus) of Previous year</b>	<b>(276.89)</b>	<b>(276.89)</b>
16	Revenue earned from Transmission Charges	1,002.32	1,002.32
<b>17</b>	<b>Revenue Gap/(Surplus)</b>	<b>-</b>	<b>(146.65)</b>

The Hon'ble Commission is requested to approve Surplus of Rs. 146.65 Crore in Truing-up of FY 2019-20. The Revenue Surplus is to be passed on in the ARR and Tariff of FY 2021-22 along with carrying cost.

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## 3 Annual Performance Review (APR) for FY 2020-21

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### 3.1 Background

BSPTCL has filed Annual Performance Review (APR) for FY 2020-21 as compared to the ARR approved for FY 2020-21 vide Tariff Order dated 20<sup>th</sup> March 2020.

Regulation 7 and Regulation 13 of BERC MYT Regulations, 2018 provides for APR of current year. The relevant extracts are as follows:

*“7 Annual Review of Performance and True-up*

*7.1 Where the Aggregate Revenue Requirement and expected revenue from tariff and charges of a Transmission Licensee or SLDC, as the case may be, are covered under a Multi-Year Tariff framework, such Transmission Licensee or SLDC shall be subject to an annual review of performance and True-up during the Control Period in accordance with these Regulations....*

*13 True-Up and Annual Performance Review*

*..... (d) The Commission shall undertake review of estimates of expenses for the current year as a part of the tariff order on the basis of the actual expenses incurred during the period April – September of the current year and corresponding figures in the order for Annual Revenue Requirement (ARR) of the current year approved by the Commission.*

*(e) Estimates of expenses for the ensuing year shall be on the basis of corresponding figures in the order for True-up of expenses of the previous year and Annual Performance Review or Tariff Order of the current year, as the Commission may consider reasonable and deem fit.....”*

In line with the above provisions of MYT Regulations, 2018, BSPTCL has estimated the APR for FY 2020-21.

### 3.2 Transmission Losses

BSPTCL submits that it has considered the transmission loss of 3.92% in the APR of FY 2020-21, which is in line with the transmission loss approved vide Tariff Order dated 15<sup>th</sup> February 2019. The actual month wise transmission loss for FY 2020-21 till

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September 2020 has been well within the approved loss of 3.92%. The following table shows the month-wise Transmission Loss for first half of FY 2020-21:

**Table 3-1: Actual Transmission Loss for FY 2020-21**

<b>Transmission Line</b>	<b>FY 2020-21 (Actual)</b>
April 2020	2.43%
May 2020	2.68%
June 2020	2.69%
July 2020	2.87%
Aug 2020	2.92%
Sep 2020	2.95%

As seen from the above Table, the Transmission loss for the months of April to September 2020 ranges from 2.43% to 2.95%. The transmission loss varies every month and therefore, BSPTCL requests the Hon'ble Commission to kindly approve transmission loss of 3.92% in line with the transmission loss approved in MYT order dated 15<sup>th</sup> February 2019. BSPTCL shall claim the actual Transmission Losses for FY 2020-21 at the time of Truing-up.

The month-wise Transmission Loss from April 2020 to September 2020 with full details of energy input and energy output, as certified as SLDC is attached as **Annexure II**.

BSPTCL submits that it has been able to install energy meters at all interface points for computing the correct level of transmission loss. The details of metering and energy accounting is elaborated under the Section on Compliance to Directives, submitted along with this Petition.

### **3.3 Capital Expenditure and Capitalization**

BSPTCL has projected capital expenditure and capitalization for FY 2020-21 based on the current status of all ongoing and upcoming projects. As stated earlier, most of the works on ongoing projects were affected due to lockdown imposed in the Country and subsequent restrictions imposed in the State, which are continued till date.

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BSPTCL was not able to take up majority of the new works from 13<sup>th</sup> Plan due to lockdown, which has hence, deferred the scheduled date of completion.

Keeping the above factors into consideration, BSPTCL has estimated capital expenditure conservatively for FY 2020-21.

BSPTCL submits that majority of the projects that are falling under 12<sup>th</sup> Plan are completed and capitalized in FY 2019-20. Some projects falling under 12<sup>th</sup> Plan are spilled over in FY 2020-21. In addition to spill over projects, BSPTCL has also estimated capitalisation from works, which are ongoing under 13<sup>th</sup> Plan and expected to get completed in this year. Accordingly, capitalization is projected against these works in FY 2020-21.

BSPTCL has considered opening CWIP of Rs. 2291.92 Crore for FY 2020-21 in line with the closing CWIP of FY 2019-20 as considered in True-up of FY 2019-20.

BSPTCL has estimated capital expenditure of Rs. 1,572.50 Crore and capitalization of Rs. 1,632.54 Crore for FY 2020-21. The estimated capitalization amount of Rs. 1,632.54 Crore includes IDC of Rs. 102.29 Crore based on the assets that are expected to get capitalized in FY 2020-21, which are either funded through ADB loan or under State Plan. BSPTCL has considered conservative estimates of project completion depending on present status of projects and likelihood of projects getting completed and put to use before March 31, 2021. Accordingly, the closing balance of CWIP for FY 2020-21 is worked out as Rs. 2,231.88 Crore.

The following Table shows the approved and estimated capital expenditure and capitalization considered in APR of FY 2020-21:

**Table 3-2: Capital Expenditure and Capitalization for FY 2020-21 (Rs. Crore)**

	Particulars	FY 2020-21
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Sl. No.		Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Opening CWIP (A)	2043.16	2,291.92
2	<b>Investment during the Year (B)</b>	<b>427.05</b>	<b>1572.50</b>
3	<b>Less: Capitalization (C)</b>	<b>1629.99</b>	<b>1632.54</b>
4	Closing CWIP (A+B-C)	840.22	2,231.87

The detailed list of projects, which are expected to get capitalized by March 2021 is attached as **Annexure III**.

The Hon'ble Commission is requested to approve Capitalization of Rs. 1,632.54 Crore as shown in the above table for FY 2020-21.

### 3.4 Gross Fixed Asset

BSPTCL has considered the opening GFA of Rs 9,552.30 Crore for FY 2020-21, which is equal to the closing GFA as considered in True-up of FY 2019-20.

The total capitalisation as discussed in previous section of this Chapter is considered as net addition to GFA for FY 2020-21. The addition to GFA of Rs. 1,632.54 Crore is considered, which also includes estimated IDC. Accordingly, BSPTCL has arrived at closing GFA of FY 2020-21. The following Table shows the schedule of Gross Fixed Asset claimed in APR of FY 2020-21:

**Table 3-3: Gross Fixed Asset claimed in APR of FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	FY 2020-21	
		Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Opening GFA	9005.53	9,552.30
2	Add: Additions to GFA from CWIP (excluding IDC)	1629.99	1,530.25
3	Add: IDC	-	102.29
4	Add: Land Cost	13.30	-
5	<b>Closing GFA</b>	<b>10,648.82</b>	<b>11,184.84</b>

The Hon'ble Commission is requested to approve asset addition, Interest during Construction and closing GFA as claimed in the Table above.

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### 3.5 Depreciation

BSPTCL has computed depreciation for FY 2020-21 in accordance with Regulation 23 of the BERC MYT Regulations, 2018. The relevant provisions are as follows:

*“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.*

*The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. The Transmission Licensee or SLDC, as the case may be, shall submit separate detail of fully depreciated asset along with year of commissioning and year of attaining ninety percent depreciation with the tariff petition.*

*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.*

*Provided further that the cost of lease hold land shall be amortised evenly within the leased period.*

*(iv) The original capital cost of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Government / Bihar Electricity Regulatory Commission.*

*(v) Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis”*

BSPTCL has considered opening depreciable GFA of Rs. 8,082.53 Crore in line with the closing depreciable GFA considered in True-up of FY 2019-20, which is net of land.

BSPTCL has considered additions to GFA as discussed in the above section.

BSPTCL has computed the depreciation to be considered in APR of FY 2020-21 based on weighted average depreciation rate on average depreciable GFA. BSPTCL has considered weighted average rate of 5.29% on opening GFA and 4.02% on addition to GFA in line with the rates considered in True-up of FY 2019-20. BSPTCL has separately computed depreciation on asset created out of grants and adjusted the

same in the gross computed depreciation, to arrive at net depreciation to be charged in APR of FY 2020-21. The following Table shows the net depreciation considered by BSPTCL for FY 2020-21:

**Table 3-4: Depreciation considered in APR of FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	Approved in Tariff Order dated 20.03.2020	FY 2020-21 (APR)
1	Depreciable GFA net of Land	7579.23	8,082.53
4	Addition during the year (excluding IDC)	1629.99	1,530.25
5	Add: IDC		102.29
6	Closing GFA	9209.22	9,715.08
7	Average GFA	-	8,898.81
8	Weighted average rate of depreciation on opening depreciable GFA	4.84%	5.29%
9	Weighted average rate of depreciation on addition to depreciable GFA	3.42%	4.02%
10	Depreciation	422.58	493.28
11	Opening Grants*	1856.40	1,915.45
12	Grants during the year including deposit works	65.67	147.64
13	Total Grants*	1922.07	2063.09
14	Weighted average rate of depreciation on opening Grants	4.84%	5.29%
15	Weighted average rate of depreciation on additional Grants	3.42%	4.02%
16	Depreciation on Asset created out of Grants	92.10	107.29
17	<b>Net Depreciation considered in ARR (10-16)</b>	<b>330.48</b>	<b>385.99</b>

\*Grants includes Deposit Works

**The Hon'ble Commission is requested to approve Depreciation as per above table in APR of FY 2020-21.**

### 3.6 Interest and Finance Charges

BSPTCL has considered normative opening balance of loan for FY 2020-21 at Rs. 3,437.21 Crore, equal to the closing balance of normative loan considered in True-up of FY 2019-20. Net Asset capitalized during FY 2020-21 is Rs. 1,632.54 Crore including IDC of Rs. 102.29 Crore.

Regulation 24 (j) specifies that “addition to loan during the year for interest purpose will be restricted to the quantum of assets capitalised and put to use”.

Regulation 24 (b) specifies that

*“(b) 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....”*

BSPTCL would like to submit that a few of the projects of 12<sup>th</sup> Plan are expected to be commissioned in FY 2020-21. The debt equity ratio considered for such projects is 70:30.

BSPTCL would like to submit that the projects under the 13<sup>th</sup> Plan are funded through 80% Debt and 20% Equity. As specified in the Regulations, since equity deployed is less than 30% for such projects, actual debt equity ratio is to be considered.

Accordingly, BSPTCL has considered debt: equity ratio of 80:20 for new projects under 13<sup>th</sup> Plan and 70:30 for old projects under 12<sup>th</sup> Plan for computation of loan and equity addition during FY 2020-21, as shown in the Table below:

**Table 3-5: Loan and Equity additions during FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	FY 2020-21
1	Capitalization during FY 2020-21	1,632.54
2	Less: Grant and Deposit Works	147.64
3	Net Capitalization (A)	1,484.90
4	12 <sup>th</sup> Plan Projects	
5	<b>Equity Considered (30%)</b>	<b>226.58</b>
6	<b>Debt Considered (70%)</b>	<b>528.69</b>
7	13 <sup>th</sup> Plan Projects	
8	<b>Equity Considered (20%)</b>	<b>145.93</b>
9	<b>Debt Considered (80%)</b>	<b>583.71</b>
10	<b>Total Equity</b>	<b>372.51</b>
11	<b>Total Debt</b>	<b>1,112.40</b>

BSPTCL has considered repayment of loans equivalent to Depreciation for FY 2020-21 in accordance with Regulation 24(e) of BERG MYT Regulations, 2018.

As per MYT Regulations, 2018, 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. Actual loans outstanding at the beginning of FY 2020-21 and applicable interest rates are shown in the Table below:

**Table 3-6: Weighted Average Interest rate for FY 2020-21**

Sl. No.	Particulars	Amount Outstanding (Rs. Crore)	Applicable Interest rate
1	Loans from Financial Institutions	500.00	7.76%
2	Loans from ADB	464.03	13.00%
<b>Weighted Average Interest Rate</b>			<b>10.28%</b>

Accordingly, BSPTCL has considered weighted average interest rate of 10.28% as shown in the Table above. BSPTCL has considered other finance charges in line with the actual claimed in FY 2019-20. BSPTCL has computed Interest and Finance Charges in accordance with Regulation 24 of BERC MYT Regulations, 2018, as shown in the following Table:

**Table 3-7: Interest on Loan computed for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	FY 2020-21	
		Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Opening Loan (A)	3263.81	3,437.21
2	Addition during the year	1,235.13	1,112.40
3	Normative Repayment (Equal to Depreciation)	330.48	385.99
4	Closing Loan	4,168.45	4,163.61
5	Average Loan	3,716.13	3,800.41
6	Interest Rate (%)	10.50%	10.28%
7	Interest on Loan	390.19	390.77
8	Other Finance Charges	0.01	0.02
9	<b>Interest and Finance Charges (7+8)</b>	<b>390.20</b>	<b>390.78</b>

**The Hon'ble Commission is requested to approve Interest on Loan and Finance Charges as shown in the Table above for APR of FY 2020-21.**

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### 3.7 Operation and Maintenance Expenses

Regulation 21 of the BERC MYT Regulations, 2018, specifies that the Hon'ble Commission shall stipulate a separate trajectory of norms for each of the components, viz., Employee expenses, R&M expenses and A&G expenses, which shall be defined in terms of number of personnel per Ckt. km, number of personnel per bay along with annual expenses per personnel, combination of A&G expenses per personnel, and A&G expenses per substation, and R&M expenses as percentage of Gross Fixed Assets.

#### Employee Expenses

The Hon'ble Commission in previous Tariff Order stipulated a separate trajectory of norms for Employee Expenses namely: Norms for No. of personnel per ckt/km, no. of personnel per substation and annual expenses per personnel. The Hon'ble Commission adopted 45% of the total no. of the employees as a part of substation and 55% personnel as a part of ckt. km for the purpose of calculation of norms.

The Hon'ble Commission has also proportionately adjusted the SLDC cost from the total cost of BSPTCL from previous year and accordingly arrived at the norms for employee expenses.

In the Truing-up of FY 2019-20, BSPTCL has considered normative escalation on the base norms computed by the Hon'ble Commission in previous Tariff Order. The following Table shows the base norms considered in FY 2019-20 for projecting employee expenses for FY 2019-20:

**Table 3-8: Base value norms for Employee Expenses**

Sl. No.	Particulars	FY 2019-20
1	Number of personnel per ckt/km (55%)	0.086
2	Number of personnel per substation (45%)	6.923
3	Annual expenses per personnel (Rs. Lakh)	7.776

BSPTCL has considered the above norms as base norms for computation of employee expenses for FY 2020-21. BSPTCL has estimated Transmission Line in ckt. km, number of sub-stations for FY 2020-21 based on actuals of FY 2020-21, till date and estimates

for balance period of FY 2020-21. The following Table shows the estimates for transmission lines and number of sub-stations for FY 2020-21.

**Table 3-9: Transmission Line, No. of sub-stations and Number of Employees for FY 2020-21**

Sl. No.	Particulars	As on Mar-21 (Est.)
1	Transmission Line in Ckt. km	16,857
2	No. of sub-stations	146
3	Number of employees	2334

Based on the above parameters and the base values worked out for FY 2019-20, BSPTCL has estimated employee expenses for FY 2020-21.

Regulation 21.1 of BERG MYT Regulations, 2018 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:*

$$EMP_n = (EMP_b * CPI \text{ inflation}) + Provision$$

*Where:*

*EMP<sub>n</sub> : Employee expense for the year n*

*EMP<sub>b</sub> : Employee expense as per the norm*

*CPI inflation: is the average increase in the Consumer Price Index (CPI) for immediately preceding three years.....”*

In accordance with the above Regulations, BSPTCL has considered the CPI up to March 2020 and taken average of preceding three years of escalation in CPI for consideration of escalation of base norm for employee expenses. The following Table shows the escalation considered on base norms for computation of employee expenses:

**Table 3-10: CPI Inflation considered for FY 2020-21**

Particulars	Actual	Estimate
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	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Annual Average CPI Index	276	284	300	323	
CPI Inflation		3.08%	5.45%	7.53%	5.35%

BSPTCL has hence, considered inflation rate of 5.35% on base norms for computation of employee expenses for FY 2020-21. The following Table shows the computation of employee expenses in accordance with Regulation 21.1 of BERC MYT Regulations, 2018:

**Table 3-11: Employee Expenses for FY 2020-21**

Sl. No.	Particulars	Base Norms	FY 2020-21	
			Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	CPI Inflation		4.22%	5.35%
2	Norms-Number of personnel per ckt. km	0.086	0.0822	0.090
3	Norms-Number of personnel per substation	6.923	6.6427	7.294
4	Transmission line length in ckt. km		16696	16,857
5	No. of Sub-stations		152	146
6	Norms-Annual expenses per personnel (Rs. lakh)	7.776	8.104	8.192
7	Employee cost (Number of personnel per ckt. km) (2*4*6)/100 (Rs. Crore)		111.22	124.63
8	Employee cost (Number of personnel per substation) (3*5*6)/100 (Rs. Crore)		81.83	87.23
9	<b>Total Employee cost for the year (7+8) (Rs. Crore)</b>		<b>193.05</b>	<b>211.86</b>

**The Hon'ble Commission is requested to approve Employee Cost as per above table in APR of FY 2020-21.**

### **Repairs and Maintenance Expenses (R&M)**

Regulation 21.2 of the BERC MYT Regulations, 2018 specifies R&M expenses as percentage of opening gross fixed assets (excluding land cost) for estimation of R&M expenses. The Hon'ble Commission computed 'K factor' at 1.36% for the Control Period from FY 2019-20 to FY 2021-22.



BSPTCL has considered 'K factor' of 1.36% as approved in previous Tariff Order and applied the same on the Opening GFA (net of Land) for computation of R&M expenses for FY 2020-21, as shown in the following Table:

**Table 3-12: R&M expenses for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Opening GFA (net of Land)	7579.23	8,082.43
2	% on GFA	1.36%	1.36%
3	R&M Expenses on Opening GFA (1*2)	103.08	109.92

The Hon'ble Commission is requested to approve R&M Expenses as per above table in APR of FY 2020-21.

#### **Administration and General Expenses (A&G)**

A&G Expenses mainly comprise rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

As discussed in the previous Section, the Hon'ble Commission in previous Tariff Order has computed norms for A&G expenses in terms of A&G expense per personnel and A&G expense per substation. In FY 2019-20, BSPTCL considered escalation on these base value norms for computing A&G expenses of FY 2019-20. The following Table shows the base value norms considered for FY 2019-20:

**Table 3-13: Base value norms for A&G Expenses**

Sl. No.	Particulars	FY 2019-20
1	A&G Expenses per personnel	1.0343
2	A&G Expenses per sub-station (Rs. Lakh)	12.444

BSPTCL has considered the above norms for computation of A&G expenses for FY 2020-21. BSPTCL has estimated number of sub-stations and number of employees for projecting A&G expenses for FY 2020-21.

Regulation 21.3 of BERC MYT Regulations, 2018 provides for escalation of base value norms for consideration of employee 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:*

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + Provision$$

*Where:*

*A&G<sub>n</sub>: A&G expense for the year n*

*A&G<sub>b</sub>: 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 has considered average of preceding three years of escalation in CPI and WPI indices for consideration of escalation of base norm for A&G expenses. The following Table shows the escalation considered on base norms for computation of A&G expenses:

**Table 3-14: CPI: WPI Inflation considered for FY 2020-21**

Particulars	Actual				Estimate
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21
Annual Average CPI Index	276	284	300	323	
CPI Inflation		3.08%	5.45%	7.53%	<b>5.35%</b>
Annual Average WPI Index	112	115	120	122	
WPI Inflation		2.92%	4.28%	1.68%	<b>2.96%</b>
WPI: CPI (60:40)					<b>3.92%</b>

BSPTCL has hence, considered inflation rate of 3.92% on base norms of FY 2019-20 for computation of A&G expenses for FY 2020-21.

The following Table shows the computation of A&G expenses in accordance with Regulation 21.3 of BERC MYT Tariff Regulations, 2018:

**Table 3-15: A&G Expenses for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	Base Value	FY 2019-20	
			Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Average annual WPI & CPI Index		3.47%	3.92%
2	Norms-A&G Expenses per personnel	1.0343	1.0702	1.0748
3	Norms-A&G Expenses per substation (Rs. Lakh)	12.443	12.8757	12.9316
4	No. of Employees		2342	2334
5	No. of Sub-stations		152	146
6	A&G Expenses (No. of employees) (2*4) (Rs. Crore)		25.06	25.09
7	A&G Expenses (No of substations) (3*5) (Rs. Crore)		19.57	18.88
8	<b>Total A&amp;G Expenses for the year (Rs. Crore) (6+7)</b>		<b>44.64</b>	<b>43.97</b>

**The Hon'ble Commission is requested to approve A&G Expenses as per above table in APR of FY 2020-21.**

### **Holding Company Expenses**

BSPTCL submits that expenses of BSP(H)CL, which is the Holding Company of all the State Utilities and Generating Company, is recovered from its subsidiary Companies. BSPTCL is claiming holding expenses separately in line with the methodology adopted in previous Tariff Order. BSPTCL has claimed Holding Company expenses for FY 2020-21 on the basis of actual expenses of FY 2019-20. Any variation with respect to these expenses shall be claimed at the time of True-up of FY 2020-21.

**Table 3-16: Holding Company Expenses for FY 2020-21 (Rs Crore)**

Sl. No.	Particulars	Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Holding Company Expenses for FY 2019-20	12.96	11.96

The Hon'ble Commission is requested to approve Holding Company Expenses as per above table in APR of FY 2020-21.

The following Table shows the total O&M expenses claimed by BSPTCL for FY 2020-21 as per Regulations 21.1, 21.2 and 21.3 of BERC MYT Tariff Regulations, 2018.

**Table 3-17: Operation and Maintenance Expenses for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	FY 2020-21	
		Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Employee expenses	193.05	211.86
2	Repairs and Maintenance Expenses	103.08	109.92
3	Administration and General Expenses	44.64	43.97
4	Holding Company Expenses	12.96	11.96
5	<b>Total Operation and Maintenance Expenses</b>	<b>334.03</b>	<b>377.71</b>

The Hon'ble Commission is requested to approve O&M Expenses as per above table in APR of FY 2020-21.

### **3.8 Return on Equity**

BSPTCL has considered closing equity of Rs. 375.41 Crore as on 31<sup>st</sup> March 2015 (approved in the True up for FY 2014-15) as opening equity for FY 2015-16 in respect of assets capitalised before 31<sup>st</sup> March 2015.

Further, in respect of projects commissioned with effect from 1<sup>st</sup> April 2015, the opening equity is considered at Rs. 1,560.02 Crore based on the closing equity considered in true up for FY 2019-20. The addition to equity during FY 2020-21 is considered at Rs. 372.51 Crore as worked out in Table 3-5 of this Petition.

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 has considered the MAT rate of 17.47%, in line with the actual MAT rate of FY 2019-20. As discussed in the earlier, BSPTCL has proposed reduced rate of ROE from 15.5% to 10%. Accordingly, BSPTCL has considered the ROE of 10% in APR for FY 2020-21.

BSPTCL has computed pre-tax RoE of **12.12%** (10.00% / (1-17.47%). The following table shows the Return of Equity computed by BSPTCL for FY 2020-21:

**Table 3-18: Return on Equity for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	FY 2020-21	
		Approved in Tariff Order dated 20.03.2020	Claimed in APR

1	Opening Equity as on 1.4.2015	375.41	375.41
2	Rate of Return on Equity	14.00%	10.00%
3	Tax/MAT rate %	17.47%	17.47%
4	Rate of Return on Equity (Pre-tax)	16.96%	12.12%
5	Return on Equity (1*4)	63.68	45.49
	<b>Equity on projects commissioned w.e.f. 1.4.2015</b>		
6	Opening Equity	1,291.41	1,560.02
7	Addition during the year	342.48	372.51
8	Closing Equity (6+7)	1,633.89	1,932.53
9	Average Equity	1,462.65	1,746.28
10	Rate of Return on Equity	15.50%	10.00%
11	Tax/MAT rate %	17.47%	17.47%
12	Rate of Return on Equity (Pre-tax)	18.78%	12.12%
13	Return on Equity (9*12)	274.70	211.60
14	<b>Total Return on Equity (5+13)</b>	<b>338.38</b>	<b>257.09</b>

The Hon'ble Commission is requested to approve pre-tax Return on Equity as shown in table in APR of FY 2020-21.

### 3.9 Interest on Working Capital

Regulation 26 of the BERC MYT Regulations, 2018 provides for computation of Interest on Working Capital for the Control Period. The relevant extracts are as follows:

*"26 Interest on working Capital*

*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 @ 15% of O&M expenses for one month.*

*Less:*

*(iv) Depreciation 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."

In accordance with the above provisions, BSPTCL has computed the interest on working capital for FY 2020-21. Regulation 26 (b) specifies that the rate of interest shall be equal to State Bank of India (SBI) one-year MCLR as of the date on which Tariff Petition is filed, plus 150 basis points.

BSPTCL has considered SBI MCLR rate of 7.00% for one-year tenure revised with effect from 10<sup>th</sup> November 2020, as latest available on SBI website (<https://www.sbi.co.in/portal/web/interest-rates/mclr>), and accordingly added 150 basis points as provided in the Regulation. BSPTCL has therefore considered interest rate of 8.50% (7.00%+1.50%) for computation of interest on working capital for FY 2020-21. The maintenance spares are considered at 15% of 1-month O&M expenses, in accordance with the Regulations.

BSPTCL has computed the working capital and interest on working capital considering the expenses estimated in the APR of FY 2020-21 at an interest rate of 8.50% for FY 2020-21 as given in the Table below:

**Table 3-19: Interest on Working Capital for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	FY 2020-21	
		Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Receivables equivalent to two (2) months of Transmission Charges	215.36	219.92
2	O&M Expenses of one month	29.48	31.48

3	Maintenance spares @15% of 1-month O&M expenses	4.42	4.72
4	Less: Depreciation, RoE and Contribution to Contingency Reserve for 2 months	111.48	125.06
	<b>Total Working Capital</b>	<b>137.78</b>	<b>131.05</b>
5	Interest on Working Capital (%)	9.50%	8.50%
6	<b>Interest on Working Capital</b>	<b>13.09</b>	<b>11.14</b>

The Hon'ble Commission is requested to approve Interest on Working Capital as shown in table for APR of FY 2020-21.

### 3.10 Non-Tariff Income

BSPTCL submits that it has considered Non-Tariff Income for FY 2020-21 after escalating 5% on actual income of FY 2019-20 as per methodology adopted by Hon'ble Commission in previous Tariff Order. Any variation in Non-Tariff Income shall be submitted at the time of true-up for FY 2020-21.

**Table 3-20: Non-Tariff Income for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	FY 2020-21	
		Approved in Tariff Order dated 20.03.2020	Claimed in APR
1	Non-Tariff Income of FY 2019-20	127.33	98.31
2	Escalation (%)	5%	5%
3	Increase	6.37	4.92
4	<b>Non-Tariff Income for the Year</b>	<b>133.70</b>	<b>103.22</b>

The Hon'ble Commission is requested to approve Non-Tariff Income as shown in above table in APR of FY 2020-21.

### 3.11 Revenue from Transmission Charges

The Hon'ble Commission had approved Annual Transmission Charges of Rs. 870.90 Crore for FY 2020-21 in the previous Tariff Order, after adjusting the surplus of FY 2018-19. BSPTCL is liable to recover the same from Distribution Companies and Railways during FY 2020-21. Therefore, BSPTCL has considered the same as revenue in APR of FY 2020-21.



The Hon'ble Commission is requested to approve Revenue from Transmission charges of Rs. 870.90 Crore for APR of FY 2020-21.

### 3.12 Aggregate Revenue Requirement for FY 2020-21

Based on the discussions in previous sections of this Chapter, BSPTCL has computed the ARR for Transmission Business for FY 2020-21, as shown in the Table below:

**Table 3-21: Annual Transmission Charges/ARR of Transmission Business for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	FY 2020-21	
		Approved in T.O. dt. 20.03.20	Claimed in APR
1	<b>O&amp;M expenses (a+ b+ c+ d)</b>	<b>353.73</b>	<b>377.71</b>
	a. Employee cost	193.05	211.86
	b. R&M expenses	103.08	109.92
	c. A&G Expenses	44.64	43.97
	d. Holding Company expenses	12.96	11.96
2	Depreciation	330.48	385.99
3	Interest on Loan Capital	390.20	390.78
4	Interest on Working Capital	13.09	11.14
5	Return on Equity	338.38	257.09
6	Less: Non-Tariff Income	133.70	103.22
7	<b>ARR for Transmission</b>	<b>1292.18</b>	<b>1,319.49</b>
8	<b>Add: Revenue Gap/(Surplus) of Previous Year</b>	<b>(421.48)</b>	<b>(421.48)</b>
9	<b>Net ARR</b>	<b>870.90</b>	<b>898.02</b>

The Hon'ble Commission is requested to approve Net ARR as shown in the above table in APR of FY 2020-21.

### 3.13 Revenue Gap/(Surplus) for FY 2020-21

BSPTCL has considered the components of ARR as discussed in this Chapter and has adjusted the Revenue approved by the Hon'ble Commission in previous Tariff Order for FY 2020-21, to arrive at the Revenue Gap/(Surplus) for FY 2020-21, as shown in the following Table:

**Table 3-22: Revenue Gap/(Surplus) for FY 2020-21 (Rs. Crore)**

Sl. No.	Particulars	Approved in T.O. dt. 20.03.20	Claimed in APR
1	Net ARR	870.90	898.52
2	Revenue approved in Tariff Order FY 2020-21	870.90	870.90
3	<b>Revenue Gap/(Surplus)</b>	-	<b>27.11</b>

**The Hon'ble Commission is requested to approve the Revenue Gap of Rs. 27.11 Crore in APR of FY 2020-21.**

Regulation 14 (f) stipulates that

*"14. True-Up and Annual Performance Review...*

*.... (f) Notwithstanding anything contained in regulation 4 of these Regulations, 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. However the **revised estimated gap/surplus as a result of APR shall not be passed in the ARR of ensuing year..... (Emphasis Added)***

In accordance with the above Regulations, the Revenue Gap/ (Surplus) worked out in the APR for FY 2020-21 is not passed to be passed through in the Tariff for FY 2021-22.

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## 4 Aggregate Revenue Requirement and Tariff for FY 2021-22

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### 4.1 Background

BSPTCL has filed for Determination of revised ARR and Tariff for ensuing year (i.e., FY 2021-22). The Hon'ble Commission has already approved the ARR for FY 2021-22 in the Tariff Order dated 15<sup>th</sup> February 2019. However, BSPTCL has filed for approval of revised ARR and accordingly Tariff for FY 2021-22 based on actuals of FY 2019-20 and revised estimates of FY 2020-21.

Regulation 11.3 of BERC MYT Regulations, 2018 requires the Transmission Licensee to file for revised ARR for each year of the Control Period. The relevant extracts are as follows:

*"11.3 An application (along with soft copy) for determination of tariff and charges shall be made by 15th November every year, for Truing up of expenses of previous years, for Annual Performance Review (APR) of the Aggregate Revenue Requirement (ARR) for the current year **and determination of ARR and transmission tariff or SLDC charges for the ensuing years of the control period.** The application should contain the data relating to each item of the ARR supported with the information/data in the formats Form no-SI to Form no-P12 appended to these Regulations and accompanied by such fees as may be specified under the BERC (Fees, Fines and Charges) Regulations, 2005 as amended from time to time. All the information as required in the formats appended to these Regulations along with justification shall be provided in the main petition... (Emphasis Added)."*

Regulation 4 of the BERC MYT Regulations, 2018 also provides for the Hon'ble Commission to determine the Transmission Charges for each year of the Control Period. The relevant extracts are as follows:

*"4.1 The Commission **shall determine the tariff for Transmission business or charges of SLDC operations under a Multi-Year Tariff framework with effect from April 1st of each financial year** subject to provisions under these Regulations..... (Emphasis Added)."*

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Accordingly, BSPTCL has proposed re-determination of ARR for FY 2021-22, as discussed in the following paragraphs.

## **4.2 Transmission Losses**

As discussed in the APR of FY 2020-21, the actual Transmission Loss is well below the approved transmission loss of 3.92%. There are meters installed at all interface points and the measurement of transmission loss is now being done correctly as per the requirement of the Hon'ble Commission.

However, since FY 2020-21 is yet to be completed to arrive at the correct picture of transmission loss of BSPTCL, it is requested to kindly approve transmission loss of 3.92% for FY 2021-22 as approved in Tariff Order dated 15<sup>th</sup> February 2019. BSPTCL would claim the actual transmission loss at the time of Truing-up of FY 2021-22.

**The Hon'ble Commission is requested to approve Transmission Loss of 3.92% for FY 2021-22.**

## **4.3 Capital Expenditure and Capitalization**

BSPTCL has projected capital expenditure and capitalization for FY 2021-22, based on the status of Projects coming under 13<sup>th</sup> Plan. BSPTCL proposes to complete significant number of the projects coming under 13<sup>th</sup> Plan in FY 2021-22, including the projects which could not get completed in FY 2020-21 due to COVID-19 restrictions. Few of the projects of 13<sup>th</sup> plan are expected to spill over to FY 2022-23 and onwards.

The detailed list of projects expected to be capitalized in FY 2021-22, i.e., by March 2022, is attached as **Annexure III**.

BSPTCL has estimated capital expenditure of Rs. 505.75 Crore and capitalization of Rs. 1699.42 Crore for FY 2021-22. In addition to this, BSPTCL has computed IDC of Rs. 127.37 Crore based on the assets that are expected to get capitalized in FY 2021-22. It is proposed that these projects, which are under 13<sup>th</sup> Plan shall be funded by 80% loan and 20% equity. The following Table shows the approved and estimated capital expenditure and capitalization for FY 2021-22:

**Table 4-1: Capital Expenditure and Capitalization for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22	
		Approved in MYT Order	Projected in ARR
1	Opening CWIP (A)	2,086.09	2,231.88
2	Investment during the Year (B)	134.44	505.75
3	Less: Capitalization (C)	1842.74	1,572.05
	Less: IDC (D)		127.37
4	<b>Closing CWIP (A+B-C-D)</b>	<b>377.79</b>	<b>1,038.21</b>

BSPTCL has considered opening CWIP of Rs. 2,231.88 Crore in line with the closing CWIP of FY 2020-21 considered in APR of FY 2020-21.

Capitalization for the entire year is considered at Rs. 1,699.42 Crore, which includes asset capitalized cost of Rs. 1,572.05 Crore and IDC of Rs. 127.37 Crore based on assets expected to get capitalized till March 2022. Accordingly, the closing balance arrived for CWIP is Rs. 1,038.21 Crore.

**The Hon'ble Commission is requested to approve Capitalization as per above table for FY 2021-22.**

#### **4.4 Gross Fixed Asset**

BSPTCL has considered the opening GFA of Rs. 11,184.84 Crore for FY 2021-22 equal to the closing GFA considered in APR of FY 2020-21 in previous Chapter. The addition to GFA is considered based on the estimated capitalisation for FY 2021-22 as discussed in the previous Section. The total capitalization considered is Rs. 1699.42 Crore, which also includes projected IDC. The following Table shows the schedule of Gross Fixed Asset projected for FY 2021-22:

**Table 4-2: Gross Fixed Asset projected for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22	
		Approved in MYT Order	Projected in ARR
1	Opening GFA	11,818.88	11,184.84
2	Add: Additions to GFA from CWIP (excl. IDC)	1,842.74	1,572.05
3	Add: IDC	-	127.37

Sl. No.	Particulars	FY 2021-22	
		Approved in MYT Order	Projected in ARR
4	Add: Land Cost		
5	<b>Closing GFA</b>	<b>13,661.62</b>	<b>12,884.26</b>

BSPTCL has projected closing GFA of **Rs. 12,884.26 Crore** with total capitalization of **Rs. 1,699.42 Crore** including IDC as shown in the Table above.

**The Hon'ble Commission is requested to approve closing GFA as claimed in the Table above.**

#### **4.5 Depreciation**

BSPTCL has computed depreciation for FY 2021-22 in accordance with Regulation 23 of the BERG MYT Regulations, 2018. The relevant provisions are as follows:

*"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.*

*The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. The Transmission Licensee or SLDC, as the case may be, shall submit separate detail of fully depreciated asset along with year of commissioning and year of attaining ninety percent depreciation with the tariff petition.*

*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.*

*Provided further that the cost of lease hold land shall be amortised evenly within the leased period.*

(iv) The original capital cost of the asset shall include Additional Capitalisation on account of Foreign Exchange Rate Variation as allowed by the Government / Bihar Electricity Regulatory Commission.

(v) Depreciation shall be chargeable from the first year of operation of the asset. For part of the year, depreciation shall be charged on pro rata basis”.

BSPTCL has considered opening depreciable GFA of Rs. 11,184.84 Crore, equal to the closing depreciable GFA considered in APR of FY 2020-21. BSPTCL has considered additions to GFA equal to capitalisation as discussed in previous Section.

BSPTCL has computed depreciation for FY 2021-22 based on the weighted average depreciation rate of 5.29% on opening GFA and 4.02% on GFA addition during the year, as considered in Truing-up of FY 2019-20.

The opening value of Grants is considered same as the closing value of grants considered in APR of FY 2020-21. Since no grant-funded assets are projected to be capitalised, no addition in grant is considered for FY 2021-22. The following Table shows the computation of depreciation in line with the methodology adopted by the Hon’ble Commission in previous Tariff Orders:

**Table 4-3: Depreciation considered in ARR of FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	Approve in MYT Order	Projected in ARR
1	Value of GFA net of Land	10,255.58	9,715.08
2	Addition during the year (excluding land and IDC)	1,726.14	1,572.05
3	Add: IDC		127.37
4	Closing GFA	11,981.72	11,414.50
5	Average GFA	-	10,564.79
6	Weighted average rate of depreciation on opening depreciable GFA	5.13%	5.29%
7	Weighted average rate of depreciation on addition to depreciable GFA	3.77%	4.02%
8	Depreciation	591.19	582.35
9	Opening Grants	1,938.11	2,063.09
10	Grants during the year	-	-
11	Total Grants	1,938.11	2,063.09
12	Average Grants	-	2,063.09
13	Weighted average rate of depreciation on opening Grants	5.13%	5.29%

Sl. No.	Particulars	Approve in MYT Order	Projected in ARR
14	Weighted average rate of depreciation on additional Grants	3.77%	4.02%
15	Depreciation on Asset created out of Grants	99.43	109.17
16	<b>Net Depreciation considered in ARR (9-15)</b>	<b>491.76</b>	<b>473.19</b>

The Hon'ble Commission is requested to approve Depreciation as shown in the above table in the ARR of FY 2021-22.

#### 4.6 Interest and Finance Charges

BSPTCL has considered normative opening balance of loan for FY 2021-22 at Rs. 4,163.61 Crore, equal to the closing balance of normative loan considered in APR of FY 2020-21. Asset capitalized during FY 2021-22 is Rs. 1,699.42 Crore, which includes IDC estimated for FY 2021-22.

Regulation 24 (j) specifies that "addition to loan during the year for interest purpose will be restricted to the quantum of assets capitalised and put to use".

Regulation 24 (b) specifies that

*"(b) 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...."*

BSPTCL would like to submit that the projects that are expected to get capitalised in FY 2021-22 are from 13<sup>th</sup> Plan only and therefore, the funding of such capitalisation is considered at Debt: Equity ratio of 80:20. As specified in the Regulations, since equity deployed is less than 30% in such projects, actual debt equity ratio is to be considered.

**Table 4-4: Loan and Equity additions during FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22
1	Capitalization during FY 2021-22	1,699.42
2	Less: Grant	-
3	Net Capitalization (A)	1,699.42
4	13 <sup>th</sup> Plan Projects	
5	<b>Equity Considered (20%)</b>	<b>339.88</b>
6	<b>Debt Considered (80%)</b>	<b>1,359.54</b>



BSPTCL has considered repayment of loans equivalent to Depreciation considered in the ARR for FY 2021-22 in accordance with Regulation 24(e) of BERC MYT Regulations, 2018.

As per Regulations, weighted average interest rate of actual loan portfolio is to be considered for computation of Interest and Finance Charges. BSPTCL has considered the weighted average interest rate of 10.28% computed in APR of FY 2020-21 to be considered as weighted average interest rate in ARR for FY 2021-22.

BSPTCL has computed Interest and Finance Charges in accordance with Regulation 24 of BERC MYT Regulations, 2018, as shown in the following Table:

**Table 4-5: Interest on Loan computed for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22	
		Approved in MYT Order	Projected in ARR
1	Opening Loan (A)	4,794.07	4,163.61
2	Addition during the year	1,474.19	1,359.54
3	Normative Repayment (Equal to Depreciation)	491.76	473.19
4	Closing Loan	5,776.50	5,049.96
5	Average Loan	5,285.28	4,606.78
6	Interest Rate (%)	10.50%	10.28%
7	Interest on Loan	554.95	473.68
8	Other Finance Charges	-	0.02
9	<b>Interest and Finance Charges (7+8)</b>	<b>554.95</b>	<b>473.70</b>

The Hon'ble Commission is requested to approve Interest on Loan and Finance Charges as shown in the above table in ARR of FY 2021-22.

#### **4.7 Operation and Maintenance Expenses**

##### **Employee Expenses**

The Hon'ble Commission in previous Tariff Order stipulated a separate trajectory of norms for Employee Expenses namely: Norms for No. of personnel per ckt. km, no. of personnel per substation and annual expenses per personnel. The Hon'ble Commission adopted 45% of the total no. of the employees as a part of substation and 55% personnel as a part of ckt. km for the purpose of calculation of norms.

The following Table shows the base value of norms considered by BSPTCL in APR of FY 2020-21.

**Table 4-6: Base value norms for Employee Expenses**

Sl. No.	Particulars	FY 2020-21
1	Number of personnel per ckt. km (55%)	0.090
2	Number of personnel per substation (45%)	7.294
3	Annual expenses per personnel (Rs. Lakh)	8.192

BSPTCL has considered the escalation on the above base value norms for computing employee expenses for FY 2021-22. Further, BSPTCL has projected Transmission Line in ckt. km, number of sub-stations and number of employees for FY 2021-22, as shown in the following Table:

**Table 4-7: Transmission Line, No. of sub-stations and No. of employees for FY 2021-22**

Sl. No.	Particulars	As on Mar-22 (Proj.)
1	Transmission Line in ckt. km	16,857
2	No. of sub-stations	146
3	No. of employees	2,342

BSPTCL has considered additions in number of sub-stations based on the schemes, which are expected to get capitalized in FY 2021-22. Number of employees are projected to increase by 5% in FY 2020-21. Transmission Line in ckt. km is estimated based on the lines expected to get commissioned in FY 2021-22.

Regulation 21.1 of the BERG MYT Regulations, 2018 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:*

$$EMP_n = (EMP_b * CPI \text{ inflation}) + Provision$$

*Where:*

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*EMP<sub>n</sub> : Employee expense for the year n*

*EMP<sub>b</sub> : Employee expense as per the norm*

*CPI inflation: is the average increase in the Consumer Price Index (CPI) for immediately preceding three years.....”*

In accordance with the above Regulation, BSPTCL has considered the CPI indices up to March 2020 and taken average of preceding three years of escalation in CPI for escalation of norms of FY 2020-21 to arrive at norms of FY 2021-22 for employee expenses. The following Table shows the escalation considered on base norms for computation of employee expenses:

**Table 4-8: CPI Inflation considered for FY 2021-22**

Particulars	Actual				Projected
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2021-22
Annual Average CPI Index	276	284	300	323	
CPI Inflation		3.08%	5.45%	7.53%	<b>5.35%</b>

BSPTCL has hence, considered inflation rate of 5.35% on base norms for computation of employee expenses for FY 2021-22. Based on the above transmission line length in ckt. km and No. of Sub-stations and applying escalation on the base values of FY 2020-21, BSPTCL has estimated employee expenses for FY 2021-22.

The following Table shows the computation of employee expenses in accordance with Regulation 21.1 of BERC MYT Tariff Regulations, 2018:

**Table 4-9: Employee Expenses for FY 2021-22**

Sl. No.	Particulars	Norms considered for FY 2020-21	FY 2021-22	
			Approved in MYT Order	Projected in ARR
1	Average annual CPI Inflation		4.28%	5.35%
2	Norms-Number of personnel per ckt. km	0.090	0.093	0.095
3	Norms-Number of personnel per substation	7.294	7.533	7.684
4	Transmission line length in ckt. km		19700	16,857
5	No. of Sub-stations		158	146
6	Norms-Annual expenses per personnel (Rs. lakh)	8.192	8.4605	8.630
7	Employee cost (Number of personnel per ckt. km) (2*4*6)/100 (Rs. Crore)		155.36	138.33
8	Employee cost (Number of personnel per substation) (3*5*6)/100 (Rs. Crore)		100.69	96.82
9	<b>Total Employee cost for the year (7+8) (Rs. Crore)</b>		<b>256.05</b>	<b>235.15</b>

The Hon'ble Commission is requested to approve Employee expenses as shown in the above table for ARR of FY 2021-22.

### Repairs and Maintenance Expenses (R&M)

Regulation 21.2 of the BERC MYT Regulations, 2018 specify R&M expenses to be allowed as a percentage of opening gross fixed assets (excluding land cost). The Hon'ble Commission computed 'K factor' at 1.36% for the Control Period from FY 2019-20 to FY 2021-22. BSPTCL has considered 'K factor' of 1.36% as approved in previous Tariff Order and applied the same on the Opening GFA (net of Land) for computation of R&M expenses for FY 2020-21, as shown in the following Table:

**Table 4-10: R&M Expenses for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	Approved in MYT Order	Projected in ARR
1	Opening GFA (net of Land)	10,255.58	9,715.08
2	% on GFA	1.36%	1.36%
3	<b>R&amp;M Expenses on Opening GFA (1*2)</b>	<b>139.48</b>	<b>132.13</b>

The Hon'ble Commission is requested to approve R&M Expenses as shown in the above table for ARR of FY 2021-22.

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## Administration and General Expenses (A&G)

A&G Expenses mainly comprise rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

As discussed in the previous Section, the Hon'ble Commission in previous Tariff Order has stipulated norms for A&G expenses in terms of A&G expense per personnel and A&G expense per substation. The following Table shows the norms considered by BSPTCL for FY 2020-21.

**Table 4-11: Base value norms for A&G Expenses**

Sl. No.	Particulars	FY 2020-21
1	A&G Expenses per personnel	1.0748
2	A&G Expenses per sub-station (Rs. Lakh)	12.9316

BSPTCL has considered the escalation on the above base value norms for computing A&G expenses for FY 2021-22. Regulation 21.3 of the BEREC MYT Regulations, 2018 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:*

$$A\&G_n = (A\&G_b * WPI \text{ inflation}) + Provision$$

*Where:*

*A&G<sub>n</sub>: A&G expense for the year n*

*A&G<sub>b</sub>: 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 has considered average of preceding three years of escalation in CPI and WPI indices for escalation of base norm for A&G expenses. The following Table shows the escalation considered on base norms for computation of A&G expenses:

**Table 4-12: CPI: WPI Inflation considered for FY 2021-22**

Particulars	Actual				Projected
	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2021-22
Annual Average CPI Index	276	284	300	323	
CPI Inflation		3.08%	5.45%	7.53%	<b>5.35%</b>
Annual Average WPI Index	112	115	120	122	
WPI Inflation		2.92%	4.27%	1.68%	<b>2.96%</b>
WPI: CPI (60:40)					<b>3.92%</b>

BSPTCL has hence considered inflation rate of 3.92% on base norms of FY 2020-21 for computation of A&G expenses for FY 2021-22. BSPTCL has estimated number of substations and number of employees for FY 2021-22 as discussed in above paragraphs.

The following Table shows the computation of A&G expenses in accordance with Regulation 21.3 of BERG MYT Tariff Regulations, 2018.

**Table 4-13: A&G Expenses for FY 2020-21**

Sl. No.	Particulars	Norms considered in FY 2020-21	FY 2021-22	
			Approved in MYT Order	Projected in ARR
1	Average annual WPI & CPI Index		2.70%	3.92%
2	Norms-A&G Expenses per personnel	1.0748	1.0828	1.1169
3	Norms-A&G Expenses per substation (Rs. Lakh)	12.9316	13.0273	13.4381
4	No. of Employees		3,708	2,342
5	No. of Sub-stations		158	146
6	A&G Expenses (No. of employees) (2*4) (Rs. Crore)		40.15	26.16
7	A&G Expenses (No of substations) (3*5) (Rs. Crore)		20.58	19.62
8	<b>Total A&amp;G Expenses for the year (Rs. Crore) (6+7)</b>		<b>60.73</b>	<b>45.78</b>

**The Hon'ble Commission is requested to approve A&G Expenses as shown in the above table for ARR of FY 2021-22.**

## Holding Company Expenses

BSPTCL submits that BSP(H)CL, which is the Holding Company of all the State Utilities and Generating Company, recovers its expenses from its subsidiary Companies. BSPTCL is claiming holding expenses separately in line with the methodology adopted in previous Tariff Order.

BSPTCL has claimed Holding Company expenses for FY 2021-22 on the basis of actual expenses for FY 2019-20. BSPTCL has not considered any increase in Holding Expenses for FY 2021-22. Any variation with respect to the submitted expenses shall be claimed in True-up of FY 2021-22.

**Table 4-14: Holding Company Expenses for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	Approved in MYT Order	Projected in ARR
1	Holding Company Expenses for FY 2020-21	10.66	11.96
2	Inflationary Increase	0.04	-
3	<b>Holding Company Expenses</b>	<b>10.70</b>	<b>11.96</b>

**The Hon'ble Commission is requested to approve Holding Company Expenses as shown in the above table for ARR of FY 2021-22.**

The following Table shows the total O&M expenses claimed by BSPTCL based on projected expenses of FY 2021-22 as per Regulations 21.1, 21.2 and 21.3 of BERC MYT Tariff Regulations, 2018:

**Table 4-15: Operation and Maintenance Expenses for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	Approved in MYT Order	Projected in ARR
1	Employee Expenses	256.05	235.15
2	Repairs and Maintenance Expenses	139.48	132.13
3	Administration and General Expenses	60.73	45.78
4	Holding Company Expenses	10.70	11.96
5	<b>Total Operation and Maintenance Expenses</b>	<b>466.95</b>	<b>425.01</b>

**The Hon'ble Commission is requested to approve Operation and Maintenance Expenses as shown in the above table for ARR of FY 2021-22.**

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## 4.8 Return on Equity

BSPTCL has considered closing equity of Rs. 375.41 Crore as on 31<sup>st</sup> March 2015 (approved in the True up for FY 2014-15), as opening equity for FY 2015-16 in respect of assets capitalised before 31<sup>st</sup> March 2015.

Further, in respect of projects commissioned with effect from 1<sup>st</sup> April 2015, the opening equity is considered at Rs. 1,932.53 Crore based on the closing equity considered in APR for FY 2020-21. The addition to equity during FY 2021-22 is considered at Rs. 339.88 Crore as projected in Table 4-4 of this Petition.

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 has considered the MAT rate of 17.47%, in line with APR of FY 2020-21. In line with FY 2019-20 and FY 2020-21, BSPTCL has considered the rate on Return of Equity at 10% for computation of Return on Equity.



BSPTCL has computed pre-tax RoE of **12.12%** (10.00 %/(1-17.47%) The following Table shows the Return of Equity computed by BSPTCL for FY 2021-22:

**Table 4-16: Return on Equity for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22	
		Approved in MYT Order	Projected in ARR
1	Opening Equity as on 1.4.2015	375.41	375.41
2	Rate of Return on Equity	14.00%	10.00%
3	Tax/MAT rate %	21.55%	17.47%
4	Rate of Return on Equity (Pre-tax)	17.85%	12.12%
5	Return on Equity (1*4)	67.01	45.49
	<b>Equity on projects commissioned w.e.f.1.4.2015</b>		
6	Opening Equity	1,989.60	1,932.53
7	Addition during the year	368.55	339.88
8	Closing Equity (6+7)	2,358.15	2,272.42
9	Average Equity	2,173.88	2,102.47
10	Rate of Return on Equity	15.50%	10.00%
11	Tax/MAT rate %	21.55%	17.47%
12	Rate of Return on Equity (Pre-tax)	19.76%	12.12%
13	Return on Equity (9*12)	429.56	254.76
<b>14</b>	<b>Total Return on Equity (5+13)</b>	<b>496.57</b>	<b>300.25</b>

The Hon'ble Commission is requested to approve pre-tax Return on Equity as shown in the above table in ARR of FY 2021-22.

#### 4.9 Interest on Working Capital

Regulation 26 of the BERC MYT Regulations, 2018 specifies the method for computation of Interest on Working Capital for the Control Period. The relevant extracts are as follows:

*"26 Interest on working Capital*

*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.*

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*(iii) Maintenance spares @ 15% of O&M expenses for one month.*

*Less:*

*(iv) Depreciation 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."*

In accordance with the above provisions, BSPTCL has computed the interest on working capital for FY 2021-22. Regulation 26 (b) specifies that the rate of interest shall be equal to State Bank of India (SBI) one-year MCLR as of the date on which Tariff Petition is filed plus 150 basis points.

BSPTCL has considered SBI MCLR rate of 7.00% for one-year tenure revised with effect from 10<sup>th</sup> November 2020 as available on SBI website (<https://www.sbi.co.in/portal/web/interest-rates/mclr>), and accordingly added 150 basis points as provided in the Regulation. BSPTCL has therefore considered interest rate of 8.50% (7.00%+1.50%) for computation of interest on working capital for FY 2021-22. The maintenance spares are considered at 15% of 1-month O&M in accordance with the Regulations.

BSPTCL has computed the working capital and interest on working capital considering the expenses projected in ARR of FY 2021-22 at an interest rate of 8.50% for FY 2021-22, as given in the Table below:

**Table 4-17: Interest on Working Capital for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22	
		Approved in MYT Order	Projected in ARR
1	Receivables equivalent to two (2) month of transmission charges	324.39	260.64
2	O&M Expenses of one month	38.91	35.42
3	Maintenance spares @15% of 1-month O&M expenses	5.84	5.31
4	Less: Depreciation, RoE and Contribution to Contingency Reserve for 2 months	164.72	147.10
	<b>Total Working Capital</b>	<b>204.42</b>	<b>154.27</b>
5	Interest on Working Capital (%)	10.00%	8.50%
6	<b>Interest on Working Capital</b>	<b>20.44</b>	<b>13.11</b>

The Hon'ble Commission is requested to approve Interest on Working Capital as shown in the above table in ARR of FY 2021-22.

#### 4.10 Non-Tariff Income

BSPTCL submits that it has considered Non-Tariff Income for FY 2021-22 based on APR of FY 2020-21 after considering escalation of 5% as approved in previous Tariff Orders.

**Table 4-18: Non-Tariff Income for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22	
		Approved in MYT Order	Projected in ARR
1	Non-Tariff Income of FY 2019-20	80.33	108.38
2	Escalation	5%	5%
3	Increase	4.01	5.16
4	<b>Non-Tariff Income for the Year</b>	<b>84.34</b>	<b>108.38</b>

The Hon'ble Commission is requested to approve Non-Tariff Income as shown in the above table in ARR of FY 2021-22.

#### 4.11 Aggregate Revenue Requirement for FY 2021-22

Based on the discussions made in previous sections of this Chapter, BSPTCL has computed the ARR for Transmission Business for FY 2021-22, as shown in the Table below:

**Table 4-19: Annual Transmission Charges/ARR of Transmission Business for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22	
		Approved in MYT Order	Projected in ARR
1	<b>O&amp;M expenses (a+ b+ c+ d)</b>	<b>466.95</b>	<b>425.01</b>
	a. Employee cost	256.05	235.15
	b. R&M expenses	139.48	132.13
	c. A&G Expenses	60.73	45.78
	d. Holding Company expenses	10.70	11.96
2	Depreciation	491.76	473.19
3	Interest on Loan Capital	554.95	473.70
4	Interest on Working Capital	20.44	13.11
5	Return on Equity	496.57	300.25
6	Less: Non-Tariff Income	84.34	108.38
7	<b>Net ARR</b>	<b>1946.33</b>	<b>1,576.88</b>

**The Hon'ble Commission is requested to approve Net ARR of Rs. 1,576.88 Crore in ARR of FY 2021-22.**

#### **4.12 Trued-up Revenue Gap/ (Surplus) of FY 2019-20**

BSPTCL had arrived at net Revenue Surplus of Rs. 146.65 Crore in the truing up for FY 2019-20. BSPTCL, in accordance with the BERC MYT Regulations, 2018 has carried forward the Trued-up gap of FY 2019-20 along with carrying cost to the ARR of FY 2021-22.

BSPTCL has considered carrying cost @ 10.05% (SBI MCLR Rate of 8.55%+1.50%) as on 1.4.2019 for half year of FY 2019-20, @ 9.25% ((SBI MCLR Rate 7.75%+1.50%) as on 1<sup>st</sup> April 2020 for 1 year of FY 2020-21, and @ 8.50% (SBI MCLR 7.00%+1.50%) as on 10<sup>th</sup> November 2020 for half year of FY 2021-22.

The following Table shows the Revenue Gap considered by BSPTCL after computing the carrying cost as per methodology adopted by the Hon'ble Commission in last Tariff Order:

**Table 4-20: Revenue Gap/(Surplus) of FY 2019-20 along with Holding Cost**

Sl. No.	Particulars	Amount (Rs. Crore)
1	Revenue Gap/(Surplus) in True up for FY 2019-20	(146.65)
2	Interest for FY 2019-20 [SBI MCLR Rate 8.55%+1.5%) @10.05%] for 6 months	(7.37)
3	Interest for FY 2020-21 [SBI MCLR Rate 7.75%+1.5%) @9.25%] for 1 year	(13.57)
4	Interest for FY 2021-22 [SBI MCLR Rate 7.00%+1.5%) @8.50%] for 6 months	(6.23)
5	Total Gap with carrying cost/interest	(173.82)
6	<b>Total Revenue Gap to be adjusted in ARR of FY 2021-22</b>	<b>(173.82)</b>

The Hon'ble Commission is requested to approve Revenue Gap/ (Surplus) with Carrying Cost as shown in the above table for ARR of FY 2021-22.

#### **4.13 APR Revenue Gap/(Surplus) of FY 2020-21**

BSPTCL has arrived at a Revenue Gap of **Rs. 27.11 Crore** in APR of FY 2020-21. As discussed in the previous Chapter of APR for FY 2020-21, BSPTCL has not adjusted this Revenue Surplus in ARR of FY 2021-22 in accordance with the provisions of MYT Regulations, 2018.

#### **4.14 Annual Transmission Charges for FY 2021-22**

BSPTCL has considered the components of ARR as discussed in this Chapter and has considered Revenue Surplus along with holding cost for FY 2019 to arrive at Annual Transmission Charges for FY 2021-22, as shown in the following Table:

**Table 4-21: Revenue Gap/(Surplus) for FY 2021-22 (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22
1	Net ARR considered for FY 2021-22	1,576.88
2	Less: Revenue Surplus of FY 2019-20 along with Holding cost	(173.82)
3	<b>Annual Transmission Charges for FY 2021-22 (1+2)</b>	<b>1,403.06</b>

The Hon'ble Commission is requested to approve Transmission Charges as shown in the above table for FY 2021-22.

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## 4.15 Methodology of Recovery of ARR

Regulation 33 specifies the procedure for recovery of Annual Transmission Charges, as reproduced below:

*“33.1 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.*

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

$$ARR \times (NDM/NDY) \times (TAFM/NATAF)$$

*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*

*34.1 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:*

$$TC_n = (\text{Transmission ARR net of incentive/disincentive}) \times (NDM/NDY) \times CC_n/SCC$$

*Where,*

*TC<sub>n</sub> = 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;*

*CC<sub>n</sub> = 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)."*

In accordance with the above Regulation, BSPTCL requests the Hon'ble Commission to permit BSPTCL to kindly recover the Annual Transmission Charges of Rs. 1,403.06 Crore in 12 monthly instalments, subject to normative transmission availability of 98%.

For the purpose of determination of Transmission Charges, BSPTCL has segregated the Annual Transmission Charges of Rs. 1,403.06 Crore between NBPDC/ SBPDCL and Railways based on the Maximum Projected Load during FY 2021-22.

Maximum Peak Load of BSPTCL projected for FY 2021-22 is 6,866 MW, which is considered for computation of Transmission Charges. Maximum Load of NBPDC/ SBPDCL is considered at 6,766 MW. Maximum Load of Railways is considered at 100 MW based on contracted capacity.

#### **Transmission Charges for NBPDC/ SBPDCL**

BSPTCL has bifurcated the total ARR based on the maximum projected load of individual long-term open access consumers. The combined maximum load of NBPDC/ SBPDCL is considered at 6,766 MW.

The Monthly Transmission Charges of BSPTCL to be recovered from both the Distribution Companies is as follows:

**Table 4-22: Transmission Charges for NBPDC/ SBPDCL (Rs. Crore)**

<b>Sl. No.</b>	<b>Particulars</b>	<b>FY 2021-22</b>
1	Annual Transmission Charges for FY 2021-22 (Rs. Crore)	1,403.06
2	Total Maximum Projected Load (in MW)	6,866
3	Total Maximum Load of NBPDC/ SBPDCL	6,766
4	Annual Transmission Charges to be levied to NBPDC/ SBPDCL (Rs. Crore)	1,382.62
5	Monthly Transmission Charges to be levied to NBPDC/ SBPDCL (Rs. Crore)	115.22

**The Hon'ble Commission is requested to allow BSPTCL to recover monthly Transmission Charges of Rs. 115.22 Crore from NBPDC/ SBPDCL in proportion to the power sharing ratio, subject to target availability.**

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## Transmission Charges for Railways

BSPTCL has bifurcated the total ARR based on the maximum projected load of individual long-term open access consumers. The combined maximum load of Railway is considered at 100 MW based on contracted capacity.

The Monthly Transmission Charges of BSPTCL to be recovered from Railways is as follows:

**Table 4-23: Transmission Charges for Railways (Rs. Crore)**

Sl. No.	Particulars	FY 2021-22
1	Annual Transmission Charges for FY 2020-21 (Rs. Crore)	1403.06
2	Total Maximum Projected Load (in MW)	6,866
3	Total Contracted Capacity of Railways	100
4	Annual Transmission Charges to be levied to Railways (Rs. Crore)	20.43
5	Monthly Transmission Charges to be levied to Railways (Rs. Crore)	1.70

**The Hon'ble Commission is requested to allow BSPTCL to recover monthly Transmission Charges of Rs. 1.70 Crore from Railways, subject to target availability.**

### 4.16 Transmission Charges for Short Term Open Access Consumers

BSPTCL has determined Short Term Open Access charges in accordance with the methodology adopted by the Hon'ble Commission in previous Tariff Order.

Transmission Charges payable by Short Term Open Access Consumer shall be determined by the following formula.

$$\text{Transmission Charges} = \text{ATC} / (\text{PLST} \times 8760)$$

Where,

ATC = Annual Transmission Charges arrived for FY 2020-21 for BSPTCL in Rs. Crore

PLST = Peak Load Projected to be served by the State Transmission System.



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BSPTCL for the purpose of computation of Transmission Charges has considered peak load of 6,016 MW.

Transmission Charges for Short Term Open Access Consumer =  $1403.06 / (6866 \times 8760)$   
**= Rs. 233.27/MWh**

The Transmission Charges for Short Term Open Access shall be payable on the basis of energy actually scheduled for short-term transactions.

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## 5 Compliance to Directives

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The Hon'ble Commission in Tariff Order dated 20<sup>th</sup> March 2020, had issued certain directives to Bihar State Power Transmission Company Limited (BSPTCL). This chapter deals with the compliance status of directives for compliance and implementation by the petitioner

### 5.1 Directive 1: Energy Auditing and Transmission Loss

a) **Commission's direction in order dated March 20, 2020:**

The Commission notes the compliance and further directs the petitioner to submit a consolidated report on the actual transmission loss for FY 2019-20 by 30.06.2020.

b) **Compliance Status and Actions**

BSPTCL is submitting the actual transmission loss for FY 2019-20 as **Annexure II**.

### 5.2 Directive 2: Maintenance of Asset /Property Register

a) **Commission's direction in order dated March 20, 2020:**

The Commission again directs the petitioner to expedite the process and complete the work of preparation of fixed assets register with all required data and submit the report along with the next tariff petition failing which the Commission will be compelled to take punitive action in the next tariff order.

b) **Compliance Status and Actions**

In compliance BSPTCL submits that the tender has been floated, but not awarded yet, for appointing Consultant for undertaking the desired activity. Due to the COVID-19 scenario and subsequent lockdowns imposed in the nation, the finalization and award of the project is pending. BSPTCL is submitting the copy of the Tender document as **Annexure C1**.

### 5.3 Directive 3: Details of programmed Capital Works

a) **Commission's direction in order dated March 20, 2020:**

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The Commission has noted the reply and directs the petitioner to submit project-wise details with justification preferably before the filing of the annual tariff petition and in no case later than at time of filing tariff petition.

**b) Compliance Status and Actions**

In compliance BSPTCL submits that it is only claiming IDC for the projects that are funded by ADB in FY 2019-20. BSPTCL wishes to submit that all the delays are on account of reasons which are not in control of BSTCL like ROW issues, floods and COVID-19. There is no cost overrun in projects due to delay. BSPTCL submits the project wise detailed list of all 79 projects with justification of delay as **Annexure C2**.

#### **5.4 Directive 4: Synchronising the Planned Transmission Work with BGCL**

**a) Commission's direction in order dated March 20, 2020:**

The Commission has noted the assurance given by the BSPTCL and directs the petitioner to follow the same procedure every year and submit a certificate to this effect along with tariff petitions every year.

**b) Compliance Status and Actions**

BSPTCL confirms that there is no work of BSPTCL which is held-up on account of delay on BGCL's side or vice-versa. BSPTCL is submitting the MOM of the meeting held on October 9, 2020 as **Annexure C3** confirming the same.

#### **5.5 Directive 5: Meters at interface points of BSPTCL & BGCL**

**a) Commission's direction in order dated March 20, 2020:**

The Commission directs the petitioner to take joint meters reading at all the interface points of BGCL/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 is further directed that monthly reconciliation statements in this respect be submitted to the Commission by 10th of every subsequent month.

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**b) Compliance Status and Actions**

Report of energy transmitted by BGCL transmission system into BSPTCL system at all interface point for the months of April to September 2020 is being enclosed as **Annexure C4**. Further, in a meeting held on October 9, 2020 with BGCL representatives it was decided that BGCL and BSPTCL will take joint meter readings and any issues/discrepancies arising from the same will be resolved by senior officers of BGCL and BSPTCL jointly. The MOM of the meeting is attached as **Annexure C3**.

## **5.6 Directive 6: Colony Consumption and Electricity Charges**

**a) Commission's direction in order dated March 20, 2020:**

The reply of the petitioner is not satisfactory. The petitioner must have separate meters for auxiliary consumption and for consumption in the staff colonies. The petitioner is, therefore, again directed to pursue this matter diligently with the Discoms concerned and report compliance by 30.06.2020 else the Commission shall consider taking punitive action.

**b) Compliance Status and Actions**

In compliance of the direction, BSPTCL has intimated SBPDCL and NBPDCCL for installation of separate meter for auxiliary consumption and colony consumption. Field officers of BSPTCL and DISCOM are coordinating for early installation of separate metering for auxiliary consumption and colony consumption. BSPTCL is continuously following up with the DISCOMs on the same and attaching the letters of communication as **Annexure C5**.

## **5.7 Directive 7: Adherence to BERC (Procedure for filing Capital investment and Capitalisation plan) Regulations, 2018**

**a) Commission's direction in order dated March 20, 2020:**

The Commission has observed that the petitioner has not submitted the FCCs and certificate of assets actually put to use issued by the competent authority. As directed earlier, Commission again directs the petitioner to submit an evidence of the asset actually put to use supported by the PCC and FCC for all the works

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capitalised. The report may be submitted to the Commission by 30.06.2020 in respect of works commissioned in FY 2019-20.

**b) Compliance Status and Actions**

In compliance of the direction, BSPTCL has already submitted the PCCs and FCCs with Q1 and Q2 reports along with the put to use certificate issued by SLDC. Further, BSPTCL is again submitting the same as **Annexure C6**.

### **5.8 Directive 8: Timely Completion of Projects/Schemes**

**a) Commission's direction in order dated March 20, 2020:**

Commission directs the BSPTCL to get acquainted with the regulatory provisions relating to treatment of IDC & IEDC and adhere to the scheduled date of completion of the projects and indicate IDC & IEDC separately for the delayed projects in the tariff petitions.

**b) Compliance Status and Actions**

In compliance BSPTCL submits that it will adhere to the directives of the Hon'ble Commission.

### **5.9 Directive 9: Utilisation / Loading Levels of Transmission Assets**

**a) Commission's direction in order dated March 20, 2020:**

The Commission directs the petitioner to upload the data regularly on its website which should also include Peak load, Minimum load and average load.

**b) Compliance Status and Actions**

BSPTCL submits that the data is being uploaded in the website regularly and the same is attached as **Annexure C7**.

### **5.10 Directive 10: Discharge of Role of STU by BSPTCL and Preparation of Composite Power Map of Transcos**

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a) **Commission's direction in order dated March 20, 2020:**

Commission, therefore, again directs the BSPTCL as STU to draw the power map in association with BGCL which would clearly depict the assets/transmission lines of two Transcos separately. The Composite Power Map shall clearly depict the assets owned by them demarcated therein clearly visible colour (separate colours for assets put to use and upcoming assets). This map shall be furnished to this Commission by April 2020 and before uploading on their websites for Commission's satisfaction.

b) **Compliance Status and Actions**

BSPTCL submits the Map as per the direction of the commission and is being attached as **Annexure C8**.

**5.11 Directive 11: Disclosure with respect to quantitative details no. of employees, total transmission lines in Ckt KM, no. of Substations and no. of bays**

a) **Commission's direction in order dated March 20, 2020:**

BSPTCL is again directed to include quantitative details of Number of personnel, No of substations and Transmission line length (in Ckt Km) in their audited account from FY 2019-20.

b) **Compliance Status and Actions**

BSPTCL submits that it has included the details in the audited accounts as per the direction of the Commission.

**5.12 Directive 12: Prior approval of Capex**

a) **Directive issued by the Hon'ble Commission in Order March 20, 2020**

The direction issued by the Hon'ble Commission in this regard is as follows:

*The Commission has been observing that BSPTCL has been strengthening its infrastructure either under Central Government scheme or under State Government scheme without obtaining mandatory prior regulatory approval of the Commission. The Commission has also been observing that the BSPTCL has not*

*adhering to the scheduled completion time of such capex, including time over-run/cost over-run cost in year on year ARR and truing-up violating the regulatory provisions. The Commission, accordingly, directs BSPTCL to strictly adhere to regulatory provisions with respect to Capex and Capitalisation and obtain prior regulatory approval of the Commission for the work-wise, scheme-wise capex and capitalisation giving full details of the same such as funding, scheduled completion date, etc. before starting such capex work.*

**b) Compliance Status and Actions:**

BSPTCL submits that it has got approval for development of 7 GSSs from the Board of BSPTCL as detailed below. BSPTCL seeks the approval of the following projects from the Hon'ble Commission under directive 12.

Sl No.	Name of GSS	Expected Load (MW)	Voltage level	Agreed by CEA & CTU	Connecting Lines	Tentative Length (RKM)
1	Barari (2*80 MVA)	40	132 kV	LILO of 132 kV Sabour (New)- Sabour D/C transmission line	132 kV Sabour (New) - Barari D/C tr. line	25 kM
					132 kV Sabour - Barari D/C tr. line	
2	Daudnagar (2*80 MVA)	40	132 kV	LILO of 132 kV Sonenagar - Chandauti (N) S/C transmission line	132 kV Chandauti (New) - Daudnagar S/C	38 kM
					132 kV Sonenagar - Daudnagar S/C	
3	Barachatti (2*80 MVA)	50	132 kV	LILO of 132 kV Barhi - Rajgir D/C transmission line and 132 kV Chnadauti (New) - Barahchatti DCDS	132 kV Chandauti (New) - Barahchatti DCDS	35 kM
					132 kV Barhi - Barahchatti D/C tr. line	5 kM
					132 kV Rajgir/Nalanda - Barahchatti D/C tr. line	
4	Bhore (2*80 MVA)	50	132 kV	LILO of 132 kV Barhi - Rajgir/Nalanda D/C transmission line	132 kV Rajgir/Nalanda - Bhore D/C tr. line	1 kM
					132 kV Barhi - Bhore D/C tr. line	
5	Murliganj (2*80 MVA)	50	132 kV	132 kV Uda Kishanganj - Murliganj DCDS and LILO of 132 kV Saharsa (New) - Banmankhi S/C transmission line	132 kV UDA Kishanganj - Murliganj DCDS	60 kM
					132 kV Sharasa (New) - Murliganj S/C tr. line	25 kM
					132 kV Banmankhi - Murliganj S/C tr. Line	
6	Bagha (2*80 MVA)	35	132 kV	LILO of 132 kV Ramnagar - Dhanha S/C and 132 kV Raxaul (New) - Ramnagar DCDS	132 kV Ramnagar - Bagha S/C tr. line	40 kM
					132 kV Dhanha - Bagha S/C tr. line	
					132 kV Raxaul (New) - Ramnagar DCDS	60 kM
7	Nabinagar (2*80 MVA)	35	132 kV	LILO of 132 kV Sonenagar - Rihand S/C transmission line and LILO of	132 kV Sonenagar - Nabinagar S/C tr. line	15 kM
					132 kV Rihand - Nabinagar S/C tr. line	

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				Sonenagar(New)- Aurangabad S/C transmission line.	132 kV Sonenagar (New) - Nabinagar S/C tr. line	58 kM
					132 kV Aurangabad - Nabinagar S/C tr. line	