PUNJAB STATE ELECTRICITY REGULATORY COMMISSION

PSTCL

TARIFF ORDER FOR FY 2020-21

AND

ARR FOR 2ND MYT CONTROL PERIOD FY 2020-21 TO FY 2022-23

PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SITE NO. 3, BLOCK B, SECTOR 18-A MADHYA MARG, CHANDIGARH

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PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SITE NO. 3, BLOCK B, SECTOR 18-A MADHYA MARG, CHANDIGARH

PETITION NO. 29 OF 2019 FILED BY PUNJAB STATE TRANSMISSION CORPORATION LIMITED FOR TRUE UP FOR FY 2018-19, ANNUAL PERFORMANCE REVIEW FOR FY 2019-20, ANNUAL REVENUE REQUIREMENT FOR THE SECOND CONTROL PERIOD FROM FY 2020-21 TO FY 2022-23 AND DETERMINATION OF TARIFF FOR FY 2020-21.

PRESENT: Ms. Kusumjit Sidhu, Chairperson
Sh. S.S. Sarna, Member
Ms. Anjuli Chandra, Member

Date of Order: 1st June, 2020

ORDER

The Punjab State Electricity Regulatory Commission (Commission), in exercise of the powers vested in it under the Electricity Act, 2003 (Act), passes this order for determining the True-Up of FY 2018-19, Annual Performance Review (APR) for FY 2019-20, Annual Revenue Requirement (ARR) for the second control period from FY 2020-21 to FY 2022-23 and determination of Tariff for FY 2020-21 for Transmission and State Load Despatch Centre (SLDC) businesses of the Punjab State Transmission Corporation Limited (PSTCL). The petition filed by PSTCL, facts presented by PSTCL in its various submissions, objections received by the Commission from consumer organizations and individuals, issues raised by the public in hearings held at Bhatinda, Patiala, Jalandhar and Chandigarh, observations of the Government of Punjab (GoP) and the responses of PSTCL to the objections in this respect have been considered. The State Advisory Committee constituted by the Commission under Section 87 of the Act has also been consulted and all other relevant facts and material on record have been considered before passing this Order.

1.1 Background

The Commission has in its previous Tariff Orders determined the tariff in pursuance to the ARRs and Tariff Applications submitted for the integrated utility by the Punjab State Electricity Board (Board) for FY 2002-03 to 2006-07, 2008-09 to 2010-11 and by PSTCL for FY 2011-12 to FY 2019-20. The Tariff Order for FY 2007-08 had been passed by the Commission in suo-motu proceedings.

PSTCL has submitted that it is one of the “Successor Companies” of the erstwhile Punjab State Electricity Board (PSEB), duly constituted under the Companies Act,1956 on 16.04.2010 after restructuring of the Board by Government of Punjab vide notification no.1/9/08-EB(PR)/196 dated 16.04.2010, under the "Punjab Power Sector Reforms Transfer Scheme" (Transfer Scheme). As per the Transfer Scheme, the erstwhile Punjab State Electricity Board (the predecessor) has been unbundled into two entities i.e. Punjab State Power Corporation Limited (PSPCL) and Punjab State Transmission Corporation Limited (PSTCL). PSPCL is assigned with the Generation, Distribution and allied activities of the erstwhile PSEB and PSTCL is assigned transmission of electricity along with operation of State Load Despatch Centre (SLDC) functions. Further, in terms of Section 39 of the Act, the Government of Punjab notified PSTCL as the State Transmission Utility (STU).

The Commission notified the Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation, Transmission, Wheeling and Retail Supply Tariff) Regulations, 2014 (PSERC MYT Regulations, 2014) and vide notification dated May 28, 2015, the effective date of enforcement of these Regulations was April 1, 2017 to 31.03.2020. The Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation, Transmission, Wheeling and Retail Supply Tariff) Regulations, 2019 (hereinafter referred to as "PSERC MYT Regulations, 2019") have been notified by the Commission vide notification No.PSERC/Secy/Regu. 140 dated 29.05.2019. These are effective from 1st April 2020.

1.2 True Up for FY 2018-19, Annual Performance Review for FY 2019-20, Annual Revenue Requirement for the second control period from FY 2020-21 to FY 2022-23 and determination of Tariff for FY 2020-21

PSTCL has filed the Petition for True up of FY 2018-19, APR for FY 2019-20, Annual Revenue Requirement for the second control period from FY 2020-21 to FY 2022-23 and determination of Tariff for FY 2020-21.

The petitioner has prayed:

a) to admit the Petition seeking approval of True-up for FY 2018-19 and Annual Performance Review for FY 2019-20 in accordance with PSERC MYT Regulations, 2014, as amended from time to time and to approve the Aggregate Revenue Requirement for the 2nd Control Period from FY 2020-2021 to FY 2022-23 and the Tariff for FY 2020-21 for Transmission Business and SLDC in accordance with PSERC MYT Regulations, 2019;

b) to approve the Revenue Gap arising on account of True-up of FY 2018-19 and Annual Performance Review for FY 2019-20 along with its carrying cost and its recovery through the Tariff in FY 2020-21, as worked out in this Petition;

c) to approve the revised capital expenditure for FY 2018-19 and FY 2019-20 submitted in the Petition;

d) to approve the ARR forecast and Tariff for 2nd Control Period FY 2020-21 to 2022-23 for Transmission Business and SLDC;

e) to approve the proposed Tariff for FY 2020-21 for Transmission Business and SLDC;

f) to invoke its power under Regulation 64 in order to allow the deviations from PSERC MYT Regulations, 2019, wherever sought in this Petition;

g) to allow additions/alterations/modifications/changes to the Petition at a future date;

h) to allow any other relief, order or direction, which the Commission deems fit to be issued;

i) to condone any error/ omission and to give opportunity to rectify the same;

On scrutiny of the petition, it was noticed that the petition was deficient in some respects. The deficiencies were conveyed to PSTCL vide letter no. 239/2143 dated 12.12.2019 followed by Order dated 30.12.2019, Order dated 07.02.2020 and other e-mails in this regard from the Commission. The replies to the deficiencies were furnished by PSTCL vide its Memo. No.3970 dated 19.12.2019 and memo no.4052 dated 26.12.2019. Accordingly, after taking into consideration the replies of PSTCL, the petition was taken on record on 30.12.2019 as Petition No. 29 of 2019. Later PSTCL submitted a further reply to deficiencies vide memo no. 204 dated 13.01.2020. Various meetings were taken with PSTCL on the data submitted in the ARR. The correspondence continued till end of March, 2020 and the relevant correspondence between the Commission and PSTCL was placed on the website of the Commission.

1.3 Objections & Public Hearing:

A public notice was published by PSTCL in Hindustan Times (English), The Tribune (English), Jagbani (Punjabi), Punjab Kesari (Hindi) and the Punjabi Tribune (Punjabi) on 01.01.2020, inviting objections from the general public and stake holders on the petition filed by PSTCL. Copies of the Petition including deficiencies pointed out by the Commission and replies of PSTCL to the deficiencies were made available in the offices of the CAO (Finance & Audit), PSTCL, 3rd Floor, Shakti Sadan, Opposite Kali Mata Mandir, The Mall, Patiala; Liaison Officer, PSTCL Guest House, near Yadvindra Public School, Phase-8, Mohali; Chief Engineer/P&M, PSTCL, Ludhiana and offices of the Superintending Engineers, P&M Circles, Ludhiana, Patiala, Jalandhar, Amritsar and Bhatinda. Soft Copies of the same were made available on the website of PSTCL i.e. www.pstcl.org and the Commission’s website i.e. www.pserc.gov.in also. The relevant correspondence with PSTCL was also uploaded on the website of the Commission. In the said public notice dated 01.01.2020, objectors were advised to file their objections with the Secretary of the Commission within 30 days of the publication of notice, with an advance copy to PSTCL. The public notice also indicated that the Commission, after perusing the objections received, may invite such objector(s) as it considers appropriate for hearing on dates to be notified in due course.

The Commission decided to hold public hearings at Bathinda, Patiala, Jalandhar & Chandigarh, as per details hereunder:

Venue	Date & time of public hearing	Category of consumers to be heard
BATHINDA Conference Room, Guest House, Thermal Colony, PSPCL, Bathinda	**January 23, 2020 (Thursday)** 2.30 PM to 4.30 PM	All consumers/organizations of the area
PATIALA Technical Training Institute (TTI), PSPCL Auditorium, Shakti Vihar, Badungar, (Near 23 No. Railway Crossing) Patiala.	**January 24, 2020 (Friday)** 11.30 AM to 1.30 PM	All consumers/organizations of the area
JALANDHAR Conference Room, Office of Chief Engineer / Operation (North), PSPCL, Shakti Sadan, GT Road. (Near Khalsa College) Jalandhar	**January 28, 2020 (Tuesday)** 2.30 PM to 4.30 PM	All consumers/organizations of the area
CHANDIGARH Commission's office i.e. Site No 3, Sector 18-A, Madhya Marg, Chandigarh – 160018.	**February 03, 2020 (Monday)** 11.30 AM to 1.30 PM	Industrial consumers/ organizations
	3.00 PM to 4.30 PM	Officers'/ Staff Associations of PSPCL and PSTCL
CHANDIGARH Commission's office i.e. Site No 3, Sector 18-A, Madhya Marg, Chandigarh – 160018.	**February 04, 2020 (Tuesday)** 11.30 AM to 1.30 PM	All consumers/organisations except Industry

A public notice to this effect was uploaded on the website of the Commission as well as published in various news papers i.e. The Tribune (English), Hindustan Times (English), Ajit (Punjabi) and Punjab Kesari (Hindi) on 03.01.2020. Through this public notice, all the objectors who had filed their objections and other persons/ organizations interested in presenting their views /suggestions were invited to participate in the public hearings.

1.4 The Commission held public hearings as per schedule from 23th January, 2020 to 4th February, 2020 at Bathinda, Patiala, Jalandhar & Chandigarh. The views of PSTCL on the objections/comments received from public and other stakeholders were heard by the Commission on 11.02.2020.

1.5 PSTCL submitted a proposal regarding creation of a Corpus Fund of State Deviation Pool Account and vide Order dated 07.02.2020, PSTCL was directed to issue a public notice inviting objections/suggestions by 25.02.2020. The public notice was published in Hindustan Times (English), The Tribune (English), Jagbani (Punjabi), Punjab Kesari (Hindi) and the Punjabi Tribune (Punjabi) on 11.02.2020.

1.6 The Government of Punjab was approached by the Commission vide DO letter No.2375- dated 06.01.2020 and DO letter No. 2497 dated 17.01.2020, 2754 dated 14.02.2020 and DO No. 3073 dated 18.03.2020 seeking its views on the Petition No. 29 of 2019. In response, Government of Punjab, vide Memo. No.PR012/1/2020-OSD Power/297 dated 29.05.2020 submitted its comments/observations on the same.

1.7 The petition for determination of tariff for FY 2020-21 was under process and since it was likely to take some more time to finalize the tariff order, the Commission vide order dated 20.03.2020 decided to continue with the existing tariff/charges as per the tariff order dated 27.05.2019 for PSTCL for FY 2019-20 for all categories of the consumers provisionally till the issue of the tariff order for FY 2020-21

1.8 The Commission received 8 written objections including the comments of the Government of Punjab. The Commission decided to take all these objections into consideration. The Number of objections/comments received from consumer groups, organizations and others are detailed below:

Sr. No.	Category	No. of Objections
1.	PSEB Engineer's Association/ Electric Power Transmission Association.	2
2.	Industries	5
3.	Government of Punjab	1
	Total	**8**

The complete list of objectors is given in **Annexure-I** of this Tariff Order. PSTCL submitted its comments on the objections to the Commission. PSTCL was directed to send the responses to the respective objectors. A summary of issues raised in objections, the response of PSTCL and the view of the Commission are contained in **Annexure - II** to this Tariff Order.

1.9 State Advisory Committee

A meeting of the State Advisory Committee constituted under Section 87 of the Act was convened on 06.02.2020 for taking its views on the ARR. The minutes of the meeting of the State Advisory Committee are enclosed as **Annexure – III** to this Order.

1.10 In addition, all subsequent and relevant correspondence between the Commission and PSTCL was also put on the website of the Commission. The Commission has, thus, taken the necessary steps to ensure that due process, as contemplated under the Act and Regulations framed by the Commission, is followed and adequate opportunity is given to all stakeholders to present their views.

1.11 Compliance of Directives

In its previous Tariff Orders, the Commission issued certain directives to PSTCL in the public interest. A summary of directives issued during previous years, status of compliance along with the directives of the Commission in this petition is given in **Chapter - 5** of this Tariff Order.

Chapter 2
True Up for FY 2018-19

2.1 Background

The Commission had approved the Annual Revenue Requirement (ARR) of PSTCL for FY 2018-19 in its Order dated 23.10.2017 for the first MYT Control Period of FY 2017-18 to FY 2019-20, which was based on expenditure and revenue estimates of PSTCL for its Transmission and SLDC Businesses. Subsequently, the Commission, in the Tariff Orders of FY 2018-19 and FY 2019-20, reviewed the estimates and revised the ARR for FY 2018-19 based on the revised data made available by PSTCL.

This Chapter contains the true-up of FY 2018-19, based on the prudence check conducted by the Commission of the data submitted by PSTCL in Petition No. 29 of 2019.

2.2 Transmission System Availability

PSTCL has submitted its month-wise Transmission System (TS) Availability for FY 2018-19 as under:

Table 1 : Transmission System (TS) Availability of PSTCL for FY 2018-19

Sr. No.	Month	TS Availability (%)
I	II	III
1.	April-18	99.9764%
2.	May-18	99.9643%
3.	June-18	99.9575%
4.	July-18	99.9704%
5.	August-18	99.9821%
6.	September-18	99.9806%
7.	October-18	99.9876%
8.	November-18	99.9853%
9.	December-18	99.9908%
10.	January-19	99.9458%
11.	February-19	99.7468%
12.	March-19	99.9869%
13.	**Average Availability**	**99.9562%**

This is further discussed in **para 2.17**.

2.3 Transmission Loss

In the Tariff Order for PSTCL in FY 2018-19, the Commission provisionally retained the transmission loss level at 2.40% for FY 2018-19, as approved in the Tariff Order for FY 2017-18. However, In the Tariff Order for FY 2019-20, the Commission observed as under:

> "*As the baseline figure of transmission loss of PSTCL is yet to be ascertained, the Commission is of the view that it would not be fair to fix the trajectory for reduction of transmission loss. As such, the Commission approves the transmission loss level of 2.50% for FY 2018-19 and for FY 2019-20 and it would re-visit the transmission losses on the basis of stabilized transmission loss data for the full year during true up for these years.*"

PSTCL's Submission:

PSTCL has requested the Commission to approve the transmission loss of 2.86% for FY 2018-19 as under:

Table 2: Transmission Loss submitted by PSTCL

Sr. No.	Month	Energy injected in PSTCL Substations	Energy exported from PSTCL Substations	Transmission Losses	
		MWh	MWh	MWh	%
I	II	III	IV	V	VI
1.	April,2018	3203850.52	3054344.77	149505.75	4.66
2.	May,2018	4484416.25	4314916.15	169500.10	3.78
3.	June,2018	5273076.23	5096183.04	176893.20	3.35
4.	July,2018	6417828.87	6252985.25	164843.63	2.57
5.	August,2018	7622336.18	7419277.12	203059.06	2.66
6.	September,2018	6159649.87	5985180.92	174468.95	2.83
7.	October,2018	5046006.97	4940445.48	105561.48	2.09
8.	November,2018	3765291.94	3679576.60	85715.34	2.27
9.	December,2018	4616774.84	4506550.61	110224.23	2.38
10.	January,2019	4514302.41	4395498.29	118804.11	2.63
11.	February,2019	3581496.97	3463409.93	118087.05	3.29
12.	March,2019	4139872.38	4029319.30	110553.08	2.67
13.	**Total Losses for FY 2018-19**	**58824903.44**	**57137687.46**	**1687215.98**	**2.86**

Commission's Analysis:

The Commission has observed that PSTCL has changed the methodology of calculating the transmission losses from net input/output of energy to gross input/output of energy after the first quarter of FY 2018-19. Therefore the above losses in different months are based on different methodologies. As the true picture of losses for the whole year is not yet available, **the Commission decides to consider the transmission loss level of 2.50% for true-up of FY 2018-19, as approved in the Tariff Order for FY 2019-20.**

2.4 Capital Expenditure

2.4.1 The Commission vide Order dated 13.12.2017 for 1st MYT Capital Investment Plan(CIP) in Petition No. 44 of 2016 had approved the Capital Investment Plan of Rs. 248.01 Crore and Rs.10 Crore for Transmission and SLDC business respectively for FY 2018-19**.** The same was also retained in the Tariff Order for FY 2018-19.During the processing of the Tariff Order for FY 2019-20, PSTCL submitted two decisions of the Board of Directors of PSTCL approving urgent, unforeseen and feasibility related works chargeable to the head "Addition of Bays/System Strengthening", Augmentation/ Strengthening of Bus Bars" and "Unforeseen emergency works". These were categorized as Category I works amounting to Rs. 17.393 Crore against the provision of Rs. 14 Crore in the 1st MYT CIP Order. Accordingly, the Commission noted in the Tariff Order for FY 2019-20 that the CIP of Transmission Business for FY 2018-19 including category 1 works, comes out to be **Rs. 251.403 Crores** (Rs. 248.01 Cr- Rs.14.0 Cr + Rs. 17.393 Cr). The Commission also revised the CIP of SLDC business to Rs. 6.79 Crore for FY 2018-19, as per the provisions of Regulation 9.8 of PSERC MYT Regulations, 2014.

PSTCL's Submission:

2.4.2 PSTCL has submitted that it has incurred capital expenditure amounting to Rs. 257.28 Crore for Transmission Business and Rs. 4.46 Crore for SLDC Business i.e. a total of 261.74 Crore during FY 2018-19. This includes capital expenditure of Rs. 24.62 Crore funded through Contributory Works and works under PSDF Scheme.

Commission's Analysis:

2.4.3 The Commission observes that CIP for FY 2018-19 approved in the 1st MYT Order, revised in the APR and capital expenditure submitted by PSTCL for true up of FY 2018-19 is as under:

Table 3: Capital Expenditure submitted by PSTCL for FY 2018-19

(Rs. Crore)

Sr. No.	Description	Approved in 1st CIP Order	Revised CIP in Tariff Order for FY 2019-20	Capital Expenditure Submitted by PSTCL for true-up*
I	II	III	IV	V
1.	Transmission Business	248.01	251.40	257.28
2.	SLDC Business	10.00	6.79	4.46
3.	Total PSTCL	258.01	258.19	261.74

**Including IDC & IEDC*

2.4.4 The Capex of Rs. 257.28 Crore (including IDC & IEDC) submitted by PSTCL for true-up of its Transmission Business also includes contributory works of Rs. 24.62 Crore and prior period works of Rs. 5.34 Crore. During the scheme wise prudence check, the Commission observed that the total capital expenditure of Transmission Business is Rs. 257.29 Crore for FY 2018-19. Since, the Capex submitted by PSTCL for true-up of FY 2018-19 excluding contributory works of Rs. 24.62 Crore is less than that approved in Tariff Order for FY 2019-20, the Commission provisionally approves Capex of Rs. 257.29 Crore for its Transmission Business.

2.4.5 For SLDC Business, PSTCL has submitted the capital expenditure of Rs. 4.46 Crore. During the scheme wise prudence check, the Commission observed that the total of capital expenditure of SLDC Business is Rs. 4.45 Crore for FY 2018-19.

2.4.6 Thus, the Capital Expenditure provisionally Trued-up by the Commission is as under:

Table 4: Capital Expenditure for FY 2018-19 approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Capital Expenditure	257.29	4.45	261.74

2.5 Capital Works and its Funding

PSTCL's Submission:

2.5.1 The Petitioner submits that Opening Capital Work in Progress for FY 2018-19 as per audited accounts is Rs. 451.80 Crore. The Petitioner has incurred capital expenditure of Rs. 261.74 Crore during FY 2018-19.An amount of Rs. 362.39 Crore has been capitalised and transferred to Fixed Assets during FY 2018-19. PSTCL has transferred assets of Rs.6.27 Crore to PSPCL.The remaining capital expenditure was carried over as Capital Work in Progress to the next year.

The details for Capital Works in Progress for Transmission and SLDC are shown in the following table:

Table 5: Capital Works in Progress submitted by PSTCL for FY 2018-19

(Rs. Crore)

Sr.No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1	Opening Capital Work in Progress	445.87	5.93	451.80
2	Add: Addition of Capital Expenditure during the year	257.28	4.46	261.74
3	Less: Transferred to GFA during the Year	361.93	0.46	362.39
4	Less: Assets transferred to PSPCL	6.27	-	6.27
5	Closing Capital Work in Progress	334.95	9.93	344.88

Commission's Analysis:

2.5.2 The Opening CWIP for FY 2018-19 is considered as Rs 425.76 Crore from the Closing CWIP for True Up of FY 2017-18 as approved in Para 2.5.4 of the Tariff Order of FY 2019-20. The Commission notes that the Capital expenditure for FY 2018-19 against the approved Transmission schemes is Rs. 257.29Crore. As per the submission of PSTCL, the Capitalization for FY 2018-19 is Rs.364.82 Crore.PSTCL has directly capitalised the assets of Rs.2.45 Crore and Rs.362.39 Crore of assets are capitalised from Capital Work in Progress.

2.5.3 For SLDC Business, PSTCL has submitted addition of GFA during the year as Rs.0.46 Crore. Whereas for calculation of depreciation, PSTCL has submitted addition of GFA as Rs. 0.49 Crore. After verifying the Fixed Asset Register submitted by PSTCL, the Commission has considered the addition of GFA during the year as Rs.0.49 Crore for SLDC Business.

The details for Capital Works in Progress approved by the Commissionfor Transmission and SLDC Business are as under:

Table 6: Capital Works in Progress approved by the Commission for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Opening Capital Work in Progress	419.83	5.93	425.76
2.	Add: Capital Expenditure during the year	257.29	4.45	261.74
3.	Less: Transferred to GFA during the Year	361.93	0.49	362.42
4.	Less: Assets transferred to PSPCL	6.27	-	6.27
5.	Closing Capital Work in Progress	308.92	9.89	318.81

Funding of Capital Expenditure

PSTCL's Submission:

2.5.4 Capital expenditure of Rs. 24.62 Crore was funded through Contributory Works and the PSDF scheme in FY 2018-19. Since the assets funded through Contributory Works and works for PSDF scheme were capitalised in FY 2018-19, PSTCL has excluded the depreciation on these assets in FY 2018-19. Therefore, the capital expenditure to the extent of Rs. 24.62 Crore in FY 2018-19 has also not been considered for funding through Equity or Loans in FY 2018-19.

2.5.5 PSTCL submitted addition of Gross Fixed Assets during FY 2018-19 and its funding as under:

Table 7: Capital Expenditure claimed by PSTCL for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1.	Provisionally approved Capital Expenditure for FY 2018-19	261.74
2.	Expenditure on Contributory Works and PSDF Schemes	24.62
3.	Capital Expenditure to be funded	237.12
4.	Equity requirement i.e.30 % of capital expenditure	71.14
5.	Loan requirement i.e. 70% of capital expenditure	165.98

2.5.6 PSTCL has stated that it has considered funding of capital expenditure through equity at 30% of capital expenditure i.e. Rs.71.14 Crore and 70% of the capital expenditure i.e. Rs. 165.98 Crore through loan.

Commission's Analysis:

2.5.7 PSTCL's Statutory Auditors have recorded their qualified opinion in their report to the Audited Balance Sheet for FY 2013-14 dated 3rd July 2015that the quantification of certain items as profit calculated in the Audited Annual Accounts cannot be considered accurate. Accordingly, the Commission had not considered the internal accrual/ free reserves of Rs.325.27 Crore (up to 31st March 2014) for equity as mentioned in Para 3.9.6 of the Commission's Tariff Order for FY 2016-17 of PSTCL.

The free reserves up to 31st March 2019 are Rs.384.25 Crore. There are no retained earnings during FY 2017-18 and FY 2018-19 as per the Audited Annual Accounts of PSTCL. The Commission has already considered the free reserves of Rs.96.92 Crore for equity contribution during the provisional True-up of FY 2017-18.Since Rs. 96,92 Crore has been considered against the actual reserve of Rs.58.08 Crore, the earlier equity contribution will be trued up at the end of MYT Control Period, and thus, the Commission cannot consider further equity addition of Rs.110.96 Crore for FY 2018-19.

Accordingly, the Commission provisionally allows the entire funding of Capital Expenditure of Rs.237.12Crorein FY 2018-19 as loan. The detailed calculations are as under:

Table 8: Calculation of Funding of Capital Expenditure for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Provisionally approved capital expenditure for FY 2018-19	257.29	4.45	261.74
2.	Less: Expenditure on Contributory Works and PSDF Schemes	24.62	-	24.62
3.	Capital Expenditure to be funded as loan	232.67	4.45	237.12

Out of Rs.237.12 Crore of loan requirement, Rs. 232.67Crore are considered for Transmission Business and Rs. 4.45Crore for SLDC Business.

2.6 Employee Cost

2.6.1 In the MYT Petition for FY 2017-18 to FY 2019-20, PSTCL had projected employee expenses of Rs. 556.23 Crore for its Transmission Business and Rs. 7.94 Crore for its SLDC Business for FY 2018-19. The Commission had approved employee cost of Rs. 445.72Crore for Transmission Business and Rs. 6.75 Crore for SLDC Business to PSTCL for FY 2018-19.

2.6.2 In the APR for FY 2018-19, PSTCL had submitted revised estimates for employee cost of Rs. 533.54 Crore for Transmission Business and had claimed Rs.8.14 Crore for SLDC Business. The Commission approved the revised employee cost of Rs.445.72 Crore for Transmission Business and Rs.6.95 Crore for SLDC Business of PSTCL at the time of APR of FY 2018-19.

PSTCL's Submission:

2.6.3 In the True Up Petition for FY 2018-19, PSTCL has submitted the Actualemployee expenses of Rs.466.36 Crore for Transmission Business and Rs.6.25 Crore for SLDC Business based on Audited Annual Accounts for FY 2018-19(net of capitalization of Rs.39.65 Crore).The detailed employee cost submitted by PSTCL for Transmission and SLDC Business for FY 2018-19 is as under:

Table 9: Detailed Employee Cost claimed by PSTCL for FY 2018-19 as per Audited Accounts

(Rs. Crore)

Sr. No	Particulars	Amount
I	**II**	**III**
1.	Salaries	77.55
2.	Expenses for engagement of manpower through outsourcing agencies	24.59
3.	Overtime	4.80
4.	Dearness Allowance	90.97
5.	Other Allowances	15.28
6.	Bonus	0.07
	Total (A)	**213.26**
7.	Medical expenses reimbursement	0.95
8.	Leave Travel Assistance/Concession	0.26
9.	Employee expenses towards:	
i.	NPS, CPF, PF, LWF	4.58
ii.	Miscellaneous - P.F inspection fees, solatium, Memento etc.	0.39
	Total (B)	6.18
10.	Staff Welfare Expenses	
i	Electricity Concession to Employees	1.62
ii	Other Staff Welfare Expenses (Uniforms, etc.)	0.09
	Total (C)	**1.71**
11.	**Terminal Benefits**	
i	Share of Pension, Gratuity & Medical	265.95
ii	Share of Leave Encashment	21.09
	Total share @ 11.36% as per transfer scheme	287.04
12.	Provision for gratuity and leave encashment for employees recruited by PSTCL	4.07
	Total (D)	**291.11**
13.	Less: Employee costs relating to construction capitalized (E)	**39.65**
14.	**Net Total (F=A+B+C+D-E)**	**472.61**

PSTCL has considered the actual Terminal Benefits as per audited accounts, except the provision for gratuity and leave encashment for employees recruited by PSTCL. Accordingly, PSTCL has claimed Terminal Benefits amounting to Rs. 291.88 Crore for Transmission Business and Rs. 0.13 Crore for SLDC as under:

Table 10: Details of Terminal Benefits claimed by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Items from Table 9	Amount
I	**II**	**III**	**IV**
1.	Terminal Benefits for the Employees of erstwhile PSEB	11-i	265.95
2.	Terminal Benefits towards NPS for new employees recruited by PSTCL	9-i	4.58
3.	Terminal Benefits towards Gratuity and Leave encashment for new employees recruited by PSTCL	12	-
4.	Miscellaneous –PF Inspection fees, solatium, contribution to CPF, PF, LWF, etc.	9-ii	0.39
5.	Share of Earned Leave Encashment	11-ii	21.09
6.	**Grand Total**		**292.01**

2.6.4 PSTCL has computed the Employee cost on normative basis. The Petitioner has considered Gross Other Employee Cost of Rs. 230.50 Crore for FY 2018-19 for Transmission Business as base expenses after adding capitalised employee costs of Rs. 39.65Crore, as per Audited Annual Accounts. Since, no employee cost has been capitalised for SLDC for FY 2018-19, the Petitioner has considered the Other employee cost of Rs. 6.69Crore for FY 2018-19 for SLDC as base expenses as per audited accounts.

2.6.5 PSTCL argued that normative employee expenses should be permitted at gross level, as the capitalisation depends on capital projects undertaken and the staff or employees of PSTCL dedicated to such project execution.

2.6.6 PSTCL computed the 'Gross Other Employee Cost' for FY 2018-19 as under:

Table 11: Computation of Normative Employee Costs claimed by PSTCL for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Gross Other Employee Cost for FY 2017-18	219.76	6.38	226.14
2.	Escalation Factor *(CPI:WPI::50:50)*	4.89%	4.89%	4.89%
3.	Gross Other Employee Cost for FY 2018-19	230.50	6.69	237.19
4.	Less: Employee cost capitalised	39.65	0.00	39.65
5.	Net Other Employee Cost	190.85	6.69	197.54
6.	Terminal Benefits	291.88	0.13	292.01
7.	**Normative Employee Cost**	**482.73**	**6.82**	**489.55**

PSTCL requests the Commission to allow actual employee cost on the basis of Audited Annual Accounts.

Commission's Analysis:

Terminal Benefits

2.6.7 The Terminal benefits expenses are to be determined as per Regulation 26.1 of PSERC MYT Regulations, 2014 (as amended from time to time). Relevant notes of Regulation 26 of MYT Regulations, 2014 are reproduced below for reference:

"Note-4: Terminal Liabilities such as death-cum-retirement gratuity, pension, commuted pension, leave encashment, LTC, medical reimbursement including fixed medical allowance in respect of pensioners will be approved as per the actuals paid by the Applicant.

Note-9: With regard to unfunded past liabilities of pension and gratuity, the Commission will follow the principle of "pay as you go". The Commission shall *not allow any other amount towards creating fund for meeting unfunded past liability of pension and gratuity."*

The terminal benefits of employees of erstwhile PSEB are to be apportioned in the ratio of 88.64% and 11.36% between PSPCL and PSTCL respectively as per the Transfer Scheme. PSTCL's share @11.36% of terminal benefit claimed as Rs.287.04Crore is allowed.

In addition to the above, an amount of Rs.0.39 Crore of 'other terminal benefits' relates to Miscellaneous-Provident Fund (PF) inspection fees, Solatium, contribution to Contributory Provident Fund, Provident Fund, Labour Welfare Fund etc. An amount of Rs.4.58 Crore of terminal benefits towards National Pension Fund for new employees recruited by PSTCL are also allowed for FY 2018-19. This includes PSTCL's claim of Terminal benefits of Rs.0.13 Crore for SLDC Business. It has been clarified vide email dated 18.02.2020 that this amount is claimed on actual basis and relates to actual contribution towards NPS/CPF/PF/LWF etc. Thus, the NPS Contribution of Rs.4.45 Crore for Transmission business and Rs. 0.13 Crore for SLDC amounting to Rs.4.58 Crore is approved by the Commission.

PSTCL has not claimed 'Provision for Gratuity & leave encashment for employees recruited by PSTCL amounting to Rs.4.07 Crore. The Commission shall allow this expenditure on "Pay as you go" basis when it is actually paid out.

The Terminal benefits allowed by the Commission are as under:

Table 12: Terminal Benefits approved by the Commission for FY 2018-19

(Rs. Crore)

Sr. No.	**Particulars**	**Transmission**	**SLDC**	**PSTCL**
I	**II**	**III**	**IV**	**V**
1.	Terminal Benefits for the Employees of erstwhile PSEB	265.95	-	265.95
2.	Terminal Benefits towards NPS for new employees recruited by PSTCL	4.45	0.13	4.58
3.	Miscellaneous –PF Inspection fees, solatium, contribution to CPF, PF, LWF, etc.	0.39	-	0.39
4.	Share of Earned Leave Encashment	21.09	-	21.09
5.	**Grand Total**	**291.88**	**0.13**	**292.01**

Thus, the Commission allows terminal benefits of Rs. 291.88 Crore for Transmission Business and Rs. 0.13 Crore for SLDC Business for FY 2018-19 i.e. a total of Rs. 292.01 Crore for PSTCL.

Other Employee Cost

2.6.8 The Employee Costs are to be determined as per Regulation 26.1 of PSERC MYT

Regulations, 2014 (as amended from time to time). Relevant sections of Regulation 26 of MYT Regulations, 2014 are reproduced below for reference:

(ii) EMPn = (EMPn-1)*(INDEX n/INDEX n-1)

- ***INDEXn***– *Inflation Factor to be used for indexing the Employee Cost.*
- *This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) of nth year and shall be calculated as under:-*

INDEXn = 0.50*CPIn + 0.50*WPIn

*'**WPIn**' means the average rate (on monthly basis) of Wholesale Price Index (all commodities) over the year for the nth year.*

*'**CPIn**' means the average rate (on monthly basis) of Consumer Price Index (Industrial workers) over the year for the nth year.*

Accordingly, the Commission has calculated the ***INDEXn*** as under:

Table 13: Calculation of INDEX

Sr. No.	Particulars	FY 2017-18	FY 2018-19	Increase (%)
I	II	III	IV	V
1	CPI	284.42	299.92	5.45
2	WPI	114.88	119.79	4.28

INDEX n/INDEX n-1 = (0.5*5.45) +(0.5*4.28) = **4.86%**

2.6.9 PSTCL has claimed Gross Employee Cost as base expenses for calculating the other employee cost for FY 2018-19. The issue raised by PSTCL regarding Gross Employee cost Vs. Net Employee cost has already been examined by the Hon'ble APTEL in Appeal No. 47 of 2012 in case of Maharashtra State Power Generation Company Limited Vs. Maharashtra State Regulatory Commission. The relevant extract of paragraph of said order is reproduced for reference:

"The Annual Revenue Requirement comprises of two expenditures viz., Capital Expenditure and Revenue Expenditure. Capital Expenditure includes Return on Equity, Financing costs and Depreciation of the Capital cost of the asset. Revenue expenditure includes Operation and Maintenance (O&M) expenditure, interest on working capital etc. The O&M expenditure has three components viz., Employees Cost, Administrative and General Expenses and Repair and Maintenance costs. As the nomenclature O&M indicates, employees costs includes the salaries and other allowance payable to employees employed in Operation and Maintenance of the projects. Utilities,

like the Appellant herein, have two categories of employees viz., (i) category employed in Construction and Erection of projects and (ii) category employed in Operation and Maintenance of projects. The cost of employees employed in construction activity is capitalised along with capital cost of the asset and the utility earns Return on Equity, Depreciation, financing costs etc for the life time of the project. The cost of employees involved in the O&M activity is added to O&M expenses. O&M expenses are the expenses which have been incurred in operation and maintenance of the project and would not include the expenses which had been incurred in construction of the project. All those expenses, including employees' cost, which have been capitalised and entitles the utility to earn RoE and other benefits for the life time of the project cannot be considered as O&M expenses for that year. Only the expenditure which has been actually incurred in operation and maintenance can form part of O&M expenses. Thus, there is no such term as 'gross O&M' expense or 'net O&M' expenses. The acceptance of the Contention of the Appellantwould amount to allowing such amounts both as a revenue expense and also form a part of the capital base on which the Appellant could claim RoE, depreciation etc resulting in to double-accounting and, therefore, not permissible." (emphasis added).

2.6.10 Accordingly, after considering the above facts the Commission has calculated the Normative Employee Cost as under:

Table 14: Normative Employee Cost calculations

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Other Employee Cost for FY 2017-18 (as per True-Up)	180.68	6.38	187.06
2.	Escalation Factor *(CPI:WPI::50:50)*	4.86%	4.86%	4.86%
3.	**Other Employee Cost for FY 2018-19**	**189.47**	**6.69**	**196.16**

2.6.11 The actual other employee costs as per the Annual Audited Accounts of FY2018-19 are as under:

Table 15: Actual Other employee cost as per Annual Audited Accounts of FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	**Actual Other Employee Cost**	**170.41**	**6.12**	**176.53**

2.6.12 The relevant Regulation for restricting the Employee Cost to actual expenditure incurred i.e. Reg 8.3 of PSERC MYT Regulations, 2014 (as amended from time to time) is reproduced below:

> "*O&M expenses are considered normative as per the formula specified in regulation 26. The changes on account of Inflation Index shall be adjusted during the annual performance review/true up. However, if the actual expenditure is less than the normative, then the allowable expenditure shall be limited to actual expenditure incurred by the applicant."*

The Commission considers other employee cost on normative basis as it is less than the actual other employee cost claimed by PSTCL as per Annual Audited Accounts for FY 2018-19.

Accordingly, after considering the above regulation, the Commission considers "Other employee cost" as Rs. 170.41 Crore for Transmission Business and Rs. 6.12 Crore for SLDC Business.

The total employee cost of PSTCL approved by the Commission is as under:

Table 16: Employee Cost allowed by the Commission for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	Actual Other Employee Cost	170.41	6.12	176.53
2.	Terminal Benefits	291.88	0.13	292.01
3.	**Actual Employee Cost**	**462.29**	**6.25**	**468.54**

Therefore, the Commission allows Employee Cost of Rs. 462.29 (170.41+291.88) Crore for Transmission Business and Rs. 6.25 (6.12+0.13) Crore for SLDC Business for FY 2018-19 i.e. Employee Cost of Rs. 468.54Crore for PSTCL.

2.7 Repair & Maintenance (R&M) and Administration & General (A&G) Expenses

2.7.1 In the MYT Petition for FY 2017-18 to FY 2019-20, PSTCL projected R&M and A&G Expenses of Rs.60.93 Crore for its Transmission Business and Rs.3.34Crore for its SLDC Business for FY 2018-19. The Commission approved Rs.60.74Crore and Rs.2.85Crore as R&M and A&G expenses for Transmission Business and SLDC Business of PSTCL respectively.

2.7.2 In the APR Petition for FY 2018-19, PSTCL revised its claim of R&M and A&G expenses to Rs.64.89Crore for its Transmission Business and Rs.1.67Crore for its SLDC Business. The Commission approved the R&M and A&G expenses of Rs.50.29Crore for Transmission Business and Rs.1.60Crore for SLDC Business of

PSTCL during the APR of FY 2018-19.

PSTCL's Submission:

2.7.3 In the True-up Petition for FY 2018-19, PSTCL has submitted total R&M and A&G expenses of Rs.59.41 Crore (Rs.58.05 Crore for Transmission Business and Rs.1.36 Crore for its SLDC Business) based on the Audited Annual Accounts for FY 2018-19.

Table 17: PSTCL's claim of R&M and A&G expenses for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	R&M expenses	33.10	0.43	33.53
2.	A&G expenses	24.95	0.93	25.88
3.	**R&M and A&G expenses**	**58.05**	**1.36**	**59.41**

2.7.4 Based on actual Capitalisation and Capital Expenditure for FY 2018-19 as per Audited Annual Accounts, PSTCL has reworked the Normative R&M and A&G Expenses for FY 2018-19 as per Regulation 26 of PSERC MYT Regulations, 2014, as amended from time to time.

2.7.5 PSTCL submits that assets funded through Contributory Works of and Government grant under PSDF Scheme of were added in fixed assets in FY 2018-19. However, these assets are operated and maintained by PSTCL. Therefore, PSTCL has considered the impact of these assets in Gross Fixed Assets for FY 2018-19 for computing R&M and A&G expenses. PSTCL claimed normative R&M and A&G expenses for FY 2018-19 as under:

Table 18: Normative R&M and A&G expenses as claimed for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	Opening GFA for the purpose of R&M and A&G	9444.25	18.57	9462.82
2.	Closing GFA for the purpose of R&M and A&G	9778.82	17.44	9796.26
3.	Escalation Factor (*Increase in WPI Index)*	4.32%	4.32%	
4.	k-factor	0.496%	7.293%	
5.	**R&M and A&G Expenses**	**49.73**	**1.37**	**51.10**
6.	Add: Audit Fee	0.17	-	0.17
7.	Add: Licence Fee and ARR Fee	0.50	-	0.50
8.	**Grand Total**	**50.40**	**1.37**	**51.77**

2.7.6 PSTCL has requested to allow Normative R&M and A&G Expenses of Rs.50.40Crore for Transmission Business and Rs.1.37 Crore for SLDC.

2.7.7 Further, PSTCL has submitted that Note 3 of Regulation 26.1 of PSERC MYT Regulations, 2014 specifies as under:

> *"Note 3: O&M expenses shall be allowed on normative basis and shall not be trued up:*
>
> *Provided, if actual O&M expenses are less than 90% of the normative expenses, the Commission shall true up the O&M expenses during the Annual Performance Review for that year on actual basis."*

The normative O&M Expenses are computed as Rs. 541.32 Crore (Rs. 489.55 Crore as Employee Cost & Rs. 51.77 Crore as R&M and A&G expenses) for FY 2018-19. As against this the actual O&M Expenses are Rs. 532.02 Crore (Rs. 472.61 Crore as Employee Cost & Rs. 59.41 Crore as R&M and A&G expenses) for FY 2018-19 as per audited accounts. The actual expenses are more than 90% of normative expenses. Hence, PSTCL requests the Commission to approve normative O&M Expenses for FY 2018-19.

Commission's Analysis:

2.7.8 The R&M and A&G expenses for the FY 2018-19 are to be determined as per Regulation 26.1 of PSERC MYT Regulations, 2014 (and amendments) which states as:

(i) R&Mn + A&Gn = K*GFA*(WPIn/WPIn-1)

Where,

- *'K' is a constant (expressed in %) governing the relationship between R&M and A&G expenses and Gross Fixed Assets (GFA) for the nth year. The value of "K" will be specified by the Commission in the MYT order.*
- *'GFA' is the average value of the Gross Fixed Assets of the nth year.*
- *'WPIn' means the average rate (on monthly basis) of Wholesale Price Index (all commodities) over the year for the nth year. "8.1 Baseline values*

2.7.9 The value of "K" is considered as 0.496% for Transmission business & 7.293% for SLDC business as specified by the Commission in the Tariff Order for FY 2019-20 dated 27th May, 2019.

2.7.10 The Commission agrees that R&M and A&G expenses for the Contributory works shall be borne by PSTCL since these assets are operated and maintained by

PSTCL.

2.7.11 The Opening GFA for the purpose of calculating R&M and A&G expenses is considered as Rs 9462.81 Crore from the Closing GFA as mentioned in para 2.7.10of True-up of FY 2017-18 in Tariff Order for FY 2019-20. The addition of GFA during the year is considered as Rs 364.82 Crore as approved in Table 6 of this Order. The retirement of GFA is considered as Rs 31.50 Crore as per the submission of PSTCL. The increase in WPI Index is considered as 4.28% as per Table 11.

2.7.12 Accordingly, the R&M & A&G expenses works out as under:

Table 19: R&M and A&G expenses determined by the Commission

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	Opening GFA for the purpose of R&M and A&G	9444.26	18.55	9462.81
2.	Addition during the year	364.33	0.49	364.82
3.	Less: Retirement of GFA	30.82	0.68	31.50
4.	Closing GFA for the purpose of R&M and A&G	9777.77	18.36	9796.13
5.	Average GFA for the purpose of R&M and A&G	9611.01	18.46	9629.47
6.	K factor	0.496%	7.293%	
7.	Escalation Factor (*Increase in WPI Index)*	4.28%	4.28%	
8.	**R&M and A&G Expenses**	**49.71**	**1.40**	**51.11**
9.	Add: Audit Fee	0.17	-	0.17
10.	Add: License Fee and ARR Fee	0.50	-	0.50
11.	**Grand Total**	**50.38**	**1.40**	**51.78**

As explained in Para 2.6.12, if the actual expenditure is less than the normative, then the allowable expenditure shall be limited to actual expenditure incurred by the petitioner.

The Normative R&M and A&G expenses for Transmission business is Rs. 50.38 Crore which is lower than the actual R&M and A&G expenses of Rs. 58.05 Crore. Accordingly, the Commission approves the R&M and A&G expenses for Transmission business as Rs. 50.38 Crore.

Since the actual R&M and A&G expenses for SLDC Business is Rs.1.36 Crore as per the Audited Annual Accounts which is lower than the Normative Expenses of Rs.1.40 Crore, the Commission has considered Rs.1.36 Crore as R&M and A&G expenses for SLDC Business of FY 2018-19.

Thus, the Commission approves Rs.51.74 Crore (Rs. 50.38 Crore for Transmission Business + Rs. 1.36 Crore for SLDC Business) of R&M and A&G expense for FY 2018-19.

O&M Expenses for PSTCL:

The total O&M expenses for PSTCL for FY 2018-19 are as given in the table below:

Table No 19A: O&M expenses approved by the Commission for FY 2018-19

(Rs. Crore)

Sr. No	Particulars	Transmission	SLDC	PSTCL
1.	Employee Cost	462.29	6.25	468.54
2.	A&G and R&M	50.38	1.36	51.74
3.	**TOTAL**	**512.67**	**7.61**	**520.28**

2.8 Depreciation Charges

2.8.1 In the ARR Petition of 1st MYT period, PSTCL had claimed depreciation charges of Rs.352.39 Crore for Transmission Business and Rs.2.71 Crore for SLDC Business against which the Commission had approved depreciation charges of Rs.298.55Crore for Transmission Business and Rs.1.74 Crore for SLDC Business for FY 2018-19.

In the APR for FY 2018-19, PSTCL revised its claim of depreciation to Rs.291.37 Crore for Transmission Business and Rs.1.15 Crore for SLDC Business. The Commission had approved depreciation charges of Rs.279.16 Crore for Transmission Business and Rs.1.08 Crore for SLDC Business for FY 2018-19.

PSTCL's Submission:

2.8.2 In the True-up Petition for FY 2018-19, PSTCL has claimed Rs. 275.69 Crore as depreciation charges for Transmission Business and Rs. 0.43 Crore for SLDC Business as per Audited Annual Accounts for FY 2018-19. PSTCL has also not considered any Depreciation on account of assets funded through Contributory Works and works under PSDF Scheme in FY 2018-19.

Table 20: Depreciation submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	Opening GFA (net of land and land rights)	6,523.17	12.96	6,536.13
2.	Addition of GFA	364.33	0.49	364.82
3.	Retirement of GFA	30.81	0.68	31.49
4.	Closing GFA (net of land and land rights)	6,856.69	12.77	6,869.46
5.	**Depreciation**	**275.69**	**0.43**	**276.12**

Commission's Analysis:

2.8.3 The Depreciation has been determined as per Regulation 21 of PSERC MYT Regulations-2014 (as amended from time to time).

2.8.4 The Commission has also deducted Rs.0.11 Crore of land acquired by PSTCL (as mentioned in Trial balance) during the year. Thus, the addition of GFA for Transmission Business works out as Rs.364.22 (364.33-0.11) Crore.

2.8.5 The Commission further determines weighted average rate of depreciation of FY 2018-19 on the basis of PSPCL's submission as under:

Table 21: Weighted Average rate of depreciation for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC
I	II	III	IV
1.	Opening GFA (net of land and land rights)	6477.62*	12.96
2.	Add: Additions during the year	364.22	0.49
3.	Less: Retirement of GFA	30.82	0.68
4.	Less: Contributory Works	24.62	-
5.	Closing GFA (net of land and land rights)	6786.40	12.77
6.	Average Gross Fixed Assets	6632.01	12.87
7.	Depreciation	275.69	0.43
8.	Average rate of depreciation	4.16 %	3.34%

**- Rs. 45.55 Cr of contributory works from FY 2017-18 is deducted from the closing balance (Rs.6523.17) of GFA for FY 2017-18 as it is not to be considered for depreciation*

2.8.6 The Commission has taken the same rate for calculation of Depreciation for FY 2018-19.

2.8.7 PSTCL has redistributed the assets of Transmission and SLDC business and thus the opening GFA for FY 2018-19 is as under and the same is considered by the Commission:

Table 22: Depreciation approved by the Commission for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Opening GFA (net of land and land rights and consumer contribution)	6477.62	12.96	6490.58
2.	Add: Additions during the year	364.22	0.49	364.71
3.	Less: Retirement of GFA	30.82	0.68	31.50
4.	Less: Contributory Works	24.62	0.00	24.62
5.	Closing GFA (net of land and land rights)	6786.40	12.77	6799.17
6.	Average GFA	6632.01	12.87	6644.88
7.	Average rate of depreciation	4.16 %	3.34%	
8.	**Depreciation allowed by the Commission**	**275.69**	**0.43**	**276.12**

The Commission approves depreciation of Rs. 275.69 Crore for Transmission Business and Rs.0.43Crore for SLDC Business for FY 2018-19.

2.9 Interest and Finance Charges for Transmission

2.9.1 In the ARR Petition of 1st MYT Period, PSTCL had projected Interest and Finance charges on long term loan of Rs. 404.44 Crore (net of capitalization of Rs. 52.14 Crore of interest charges) for its Transmission Business and Rs.3.80Crore for SLDC Business for FY 2018-19. The Commission approved interest charges of Rs. 403.87 Crore for Transmission Business and Rs.1.68 Crore for SLDC Business.

2.9.2 In the APR for FY 2018-19, PSTCL had claimed Interest and Finance charges on long term loan of Rs. 375.18 Crore (net of capitalization of Rs. 31.94 Crore) for its Transmission Business and Rs. 0.82 Crore for SLDC Business. The Commission approved the interest and finance charges of Rs. 365.79 Crore for Transmission Business and Rs. 0.75 Crore for SLDC Business at the time of Review of FY 2018-19.

PSTCL's Submission:

2.9.3 In the True Up Petition for FY 2018-19, PSTCL has claimed the Interest & Finance Charges of Rs. 364.84 Crore for Transmission Business and Rs. 0.77 Crore for SLDC Business based on Audited Annual Accounts for FY 2018-19 (net of capitalization of IDC Rs. 28.99 Crore).

2.9.4 PSTCL submits that the Commission in its MYT Order dated October 23, 2017, had disallowed Rs. 60.00 Crore from State Bank of Patiala and Rs. 67.74 Crore from Bank of India during True up of FY 2014-15 and Rs. 70.71 Crore from Bank of India in True Up of FY 2015-16 stating that the loans were not of the nature of long-term loans. Further in the Tariff Order dated April 19, 2018, the Commission has disallowed the interest charges on loans to the extent of Rs. 50 Crore for Transmission business and Rs. 0.75 Crore for SLDC in True up of FY 2016-17. This has led to total disallowance of Loans of Rs. 249.20 Crore for PSTCL. On the one hand, the Commission has not considered such loans, although there was addition to fixed assets/WIP, while on the other hand, Commission has also not considered any equity infusion for funding of such capital expenditure.

2.9.5 PSTCL has prayed to the Commission to allow interest on repayments which were considered by the Commission on disallowed loans on account of consideration of higher repayment amount in past years.

2.9.6 For the purpose of the true-up for FY 2018-19, PSTCL has considered the opening balance of loan for FY 2018-19 equal to closing balance of loan for FY 2017-18 submitted in True-up Petition for FY 2017-18. The Petitioner has considered the Interest Charges based on Audited Accounts and actual loan taken against the investment done during FY 2018-19. PSPCL has submitted source wise long term loan outstanding and interest charges for PSTCL for FY 2018-19 in the following table:

Table No 22A: Long Term Loans and Interest charges for FY 2018-19

(Rs. Crore)

Sr. No.	Name of the source	Opening balance as on April 1, 2018	Loan received	Loan repaid	Closing balance as on March 31, 2019	Interest charges
1.	LIC	11.13	-	11.13	-	0.36
2.	REC	2,891.41	94.20	255.61	2,730.00	285.79
3.	SBI	23.22	50.00	15.22	58.00	1.80
4.	NABARD	211.39	7.70	15.53	203.56	20.78
5.	PSPCL	7.59	-	-	7.59	-
6.	PFC-2	495.57	-	-	495.57	48.07
7.	GPF	109.78	-	21.96	87.82	7.76
8.	Bank of India	165.68	-	22.87	142.81	15.74
9.	PFC-1	91.84	-	-	91.84	9.09
10.	IOB	-	14.09	2.35	11.74	0.82
11.	Loan for SLDC	7.62	-	0.33	7.29	0.77
12.	**Total loan for PSTCL**	**4,015.23**	**165.99**	**345.00**	**3,836.22**	**390.98**
13.	Less: Interest					28.99
14.	Add: Miscellaneous interest/ finance charges					0.22
15.	Add: Guarantee Charges					3.40
16.	**Net Total**					**365.61**

Commission's Analysis:

2.9.7 The Commission has considered the following as long term loans for calculation of interest rate for Transmission business as under:

Table 23: Loans for Transmission Business

(Rs. Crore)

Sr. No.	Name of Source	Opening Balance as on April 1,2018	Loan Received	Loan Repaid	Closing Balance as on March 31, 2019	Interest Charges
I	**II**	**III**	**IV**	**V**	**VI**	**VII**
1.	LIC	11.13	-	11.13	-	0.36
2.	REC	2,891.41	94.20	255.61	2,730.00	285.79
3.	SBI	23.22	50.00	15.22	58.00	1.80
4.	NABARD	211.39	7.70	15.53	203.56	20.78
5.	PSPCL	7.59	-	-	7.59	-
6.	PFC-2	495.57	-	-	495.57	48.07
7.	**Total loan for Transmission Business**	**3640.31**	**151.90**	**297.49**	**3494.72**	**356.80**

2.9.8 The Commission provisionally approved capital expenditure of Rs. 232.67Crore for

Transmission Business in addition to assets created out of contributory works.The Commission approves a loan addition of Rs.232.67 Croreas explained in Para 2.5.7.

2.9.9 Considering the long term loans and interest charges submitted by PSTCL as given in Table 23, the weighted average rate of interest is calculated as 10.001% [356.80/ {(3640.31+3494.72) / 2}] for Transmission business.

2.9.10 The Commission considers the Opening balance of loan for FY 2018-19 from the Closing loan of FY 2017-18 as approved in tariff Order for FY 2019-20.

2.9.11 The Commission has calculated the interest on loan as under:

Table24: Interest on loan for Transmission Business as approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Claimed by PSPCL	Allowed by the Commission
I	II	III	IV
1.	Opening Loan (other than GP Fund)	3920.60	3660.45
2.	Addition	165.99	232.67
3.	Repayment	322.70	297.49
4.	Closing loan	3763.89	3595.63
5.	Average loan	3842.25	3628.04
6.	Weighted average rate of Interest	10.01%	10.001%
7.	**Interest on loan**	**382.45**	**362.86**

2.9.12 **Interest on GP Fund**

PSTCL has claimed an interest of Rs.7.76 Crore on average GP fund of Rs.98.80 Crore during FY 2018-19.

The Commission approves interest of Rs.7.76 Crore on GP Fund, being statutory payment, as claimed by PSTCL for FY 2018-19.

2.9.13 **Capitalization of Interest Charges**

In the True up Petition for FY 2018-19, PSTCL has capitalized Rs.28.99Croreas interest charges based on Audited Annual Accounts for FY 2018-19.

The Commission, as per past practice, approves capitalization of interest of Rs.28.99 Crore for FY 2018-19 based on the Audited Annual Accounts.

2.9.14 **Finance Charges and Guarantee Charges**

PSTCL has claimed Finance charges of Rs.0.22Crore and Guarantee charges of Rs.3.40 Crore based on Audited Annual Accounts for FY 2018-19 for Transmission Business. Accordingly, the Commission approves the finance charges and Guarantee charges of Rs.3.62 Crore for Transmission Business of PSTCL.

The Commission approves interest and finance charges for Transmission Business of PSTCL for FY 2018-19 as under:

Table 25: Interest &Finance Charges for Transmission Business for FY 2018-19 as approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Interest as Claimed by PSTCL	Amount allowed by the Commission
I	**II**	**III**	**IV**
1.	Interest on Loans	382.45	362.86
2.	Interest on GP Fund	7.76	7.76
3.	Guarantee Charges and Finance Charges	3.62	3.62
4.	**Gross Interest on Long Term Loans**	**393.83**	**374.24**
5.	Less :Capitalization	28.99	28.99
6.	**Net Interest Charges on Long Term Loans**	**364.84**	**345.25**

Thus, the Commission approves Net Interest and Finance Charges of Rs. 345.25Crore for Transmission Business for FY 2018-19.

2.10 Interest and Finance charges for SLDC Business

PSTCL's Submission:

2.10.1 In the True-up Petition for FY 2018-19, PSTCL has submitted that it had incurred capital expenditure of Rs.4.46 Crore in the SLDC Business. Opening balance of loan is Rs.7.62 Crore, PSTCL has submitted no loan addition and has claimed Rs.0.77 Crore as interest charges on long term loan during for FY 2018-19.

Table 26: Interest on loan as submitted by PSTCL for SLDC Business for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission
I	**II**	**III**
1.	Opening Loan	7.62
2.	Addition	-
3.	Repayment	0.33
4.	Closing loan	7.29
5.	Average loan	7.46
6.	**Interest on loan**	**0.77**

Commission's Analysis:

2.10.2 PSTCL has not drawn any loan for SLDC business. The Commission has provisionally approved capital expenditure of Rs.4.45Crore for SLDC business. **Accordingly, the Commission has considered capital expenditure of Rs. 4.45 Crore to be funded through loan as explained in Para 2.5.7.**

2.10.3 The interest rate submitted by PSTCL works out as under:

Table 27: Calculation of Interest rate for SLDC Business (Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1.	Average loan	**7.46**
2.	Interest Charges	**0.77**
3.	Rate of Interest	10.33%

2.10.4 Thus, the Commission considers the interest on allowable loans at weighted average rate of interest as calculated in Table(other than working capital loans) i.e. 10.33% as under:

Table 28: Approved Long term loan and interest there on for SLDC Business for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1.	Opening Loan	6.74
2.	Addition	4.45
3.	Repayment	0.33
4.	Closing loan	10.86
5.	Average loan	8.80
6.	Weighted average rate of Interest	10.33%
7.	**Interest on loan**	**0.91**

Therefore, the Commission approves interest & finance charges of Rs.0.91 Crore during FY 2018-19 for SLDC Business.

The Total Interest on loan approved by the Commission for PSTCL for FY 2018-19 is as under:

Table 29: Interest on loan approved by the Commission for PSTCL for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Interest on loan	345.25	0.91	346.16

2.11 Interest on Working Capital for Transmission Business

2.11.1 In the ARR Petition for FY 2018-19, PSTCL had claimed an interest of Rs. 48.10 Crore on working capital of Rs.402.47 Crore for Transmission Business for FY 2018-19 against which the Commission had approved interest of Rs. 39.29 Crore on working Capital of Rs.328.78Crore for FY 2018-19.

2.11.2 In the APR for FY 2018-19, PSTCL had revised its claim ofinterest of Rs. 35.46 Crore on working capital of Rs. 354.87 Crore for Transmission Business for FY 2018-19 against which the Commission had approved interest of Rs. 34.31 Crore on working Capital of Rs. 337.07 Crore for FY 2018-19.

PSTCL's Submission:

2.11.3 In the True-up Petition for FY 2018-19, PSTCL has claimed an interest of Rs. 35.93 Crore on working capital loan of Rs.345.78 Crore @10.40% for Transmission Business. The Rate of interest on working capital is required to be calculated as per provisions contained in Regulations of PSERC MYT Regulations - 2014.

Table 30: Interest on Working Capital for Transmission as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1.	Receivables equivalent to two months of fixed cost	221.09
2.	Maintenance spares @ 15% of O&M expenses	79.97
3.	Operation and Maintenance expenses for one month	44.43
4.	Total Working Capital (Normative)	**345.48**
5.	Rate of Interest applied	10.40%
6.	**Interest on Working Capital**	**35.93**

Commission's Analysis:

2.11.4 The Commission has determined the working capital requirement in accordance with the Regulation-54 of PSERC MYT Regulations-2014. Rate of interest on working capital is calculated as per provisions contained in Regulations-25.1 of PSERC MYT Regulations - 2014 (Amended vide No. PSERC/Reg./111 dated 03.02.2016).

2.11.5 The Commission considers the interest at the weighted average rate of approved loans which works out to 9.96% on working capital requirement of Rs.329.47 Crore for Transmission Business as under:

Table 31: Interest on Working Capital for Transmission Business of PSTCL for FY 2018-19 approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1.	Receivables equivalent to two months i.e. 2 x (ARR/12)	209.85
2.	Maintenance spares @ 15% of Operation and Maintenance expenses[Rs. 512.67 (462.29+50.38) Crore]	76.90
3.	Operation and Maintenance expenses for one month as approved by the Commission (Rs.512.67/12)	42.72
4.	Working Capital requirement	329.47
5.	**Interest on Working Capital (@9.96% for FY 2018-19)**	**32.81**

The Commission approves working capital requirements of Rs.329.47Crore

and interest thereon of Rs. 32.81 Crore for Transmission Business of PSTCL for FY 2018-19.

Interest on Working Capital for SLDC Business

2.11.6 In the ARR Petition for FY 2018-19, PSTCL had claimed an interest of Rs. 0.90 Crore on the total working capital of Rs.7.69 Crore. The Commission approved the working capital of Rs.5.66 Crore and interest thereon as Rs. 0.66 Crore for FY 2018-19.

2.11.7 In the APR for FY 2018-19, PSTCL had claimed interest of Rs.0.54 Crore on the total working capital of Rs.5.38 Crore for its SLDC Business. The Commission determined the working capital of Rs.5.20 Crore and interest thereon of Rs.0.43 Crore for SLDC Business.

PSTCL's Submission:

2.11.8 In the True up Petition for FY 2018-19, PSTCL has claimed Rs. 0.49 Crore as interest @10.40% on Working Capital of Rs. 4.71 Crore.

Table 32: Rate of Interest on Working Capital for SLDC as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1.	Receivables equivalent to two months of fixed cost	2.80
2.	Maintenance spares @ 15% of O&M expenses	1.23
3.	Operation and Maintenance expenses for one month	0.68
4.	Total Working Capital (Normative)	**4.71**
5.	Rate of Interest applied	10.40%
6.	**Interest on Working Capital**	**0.49**

Commission's Analysis:

2.11.9 Applying the same principle as stated above for Transmission Business, the Commission works out the total working capital requirement of Rs. 4.34 Crore and interest thereon works out to Rs. 0.45 Crore @ 10.33% and is as under:

Table 33: Interest on Working Capital for SLDC Business for FY 2018-19 approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1.	Receivables equivalent to two months i.e. 2 x (ARR/12)	2.57
2.	Maintenance spares @15% of O&M expenses [Rs.7.61 (6.25+1.36) Crore]	1.14
3.	Operation & Maintenance expenses for one month (Rs.7.61/12)	0.63
4.	Working capital requirement	4.34
5.	**Interest on working capital (@ 10.33% for FY 2018-19)**	**0.45**

The Commission approves working capital requirement of Rs. 4.34 Crore and interest thereon at the weighted average rate of interest approved for loans as Rs.0.45Crore for SLDC Business of PSTCL for FY 2018-19.

The Total Interest on Working Capital approved by the Commission for PSTCL for FY 2018-19 is as under:

Table 34: Interest on Working Capital approved by the Commission for PSTCL for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Interest on Working Capital	32.81	0.45	33.26

2.12 Return on Equity

2.12.1 In the ARR Petition for FY 2018-19 in the MYT Petition, PSTCL had claimed RoE of Rs. 114.53 Crore on opening equity of Rs. 699.79 Crore and on addition of Rs. 78.18 Crore during FY 2018-19. The Commission had approved RoE of Rs. 115.64 Crore worked out @15.50% on the average equity for the year.

2.12.2 In the APR Petition for FY 2018-19, PSTCL had claimed RoE of Rs.117.60Crore on opening equity of Rs.712.11Crore and on addition of Rs.93.22Crore during FY 2018-19. The Commission had approved RoE of Rs.114.94 Crore on opening equity of Rs.708.80 Crore and on addition of Rs.77.46 Crore.

PSTCL's Submission:

2.12.3 In the True up Petition for FY 2018-19, PSTCL has claimed additional equity of Rs.73.58 Crore for FY 2018-19 as under:

Table 35: Return on Equity for FY 2018-19 as claimed by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1.	Equity at the opening of FY 2018-19	702.80
2.	Addition of equity during the year	73.58
3.	Equity at the closing of FY 2018-19	776.39
4.	Rate of Return (%) RoE	15.50%
5.	**Return on Equity**	114.64

2.12.4 PSTCL submits that it has partly funded the Capital Expenditure (30% for Capital Expenditure) through equity infusion in FY 2018-19, by reinvesting the RoE allowed in the previous year. The equity addition has been considered as Rs. 71.14

Crore.Some of assets, such as furniture and fixture and office equipment are directly capitalised and not included in capital investment plan approved by the Commission. PSTCL submits that these assets have been funded through equity during FY 2018-19. In view of this, the addition of equity of Rs. 2.44Crore has been considered. Hence, total equity addition has been considered as Rs. 73.58 (71.14 + 2.44) Crore for FY 2018-19.

Commission's Analysis:

2.12.5 In accordance with the Regulation 20 of PSERC MYT Regulations, 2014, Return on equity @15.50% on the average equity for the year are to be allowed. The Commission is not considering any addition of equity as explained in Para 2.5.7. Accordingly, Return on Equity based on the equity approved in True-up of FY 2017-18 works out as under.

Table 36: Return on Equity for FY 2018-19 for Transmission allowed by the Commission

(Rs. Crore)

Sr. No.	Particulars	Amount
I	**II**	**III**
1.	Equity at the opening of FY 2018-19	702.80
2.	Addition of equity during the year	**0.00**
3.	Equity at the closing of FY 2018-19	702.80
4.	Average Equity	702.80
5.	Rate of Return (%) RoE	15.50%
6.	**Return on Equity(15.50% of 702.80)**	**108.93**

Thus, the Commission provisionally approves RoE of Rs. 108.93 Crore to PSTCL for FY 2018-19 as under:

Table 37: Return on Equity approved by the Commission for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	**Return on Equity**	**108.93**	**-**	**108.93**

2.13 Unified Load Dispatch &Communication (ULDC) Charges

2.13.1 In the ARR Petition for 1st MYT Period, PSTCL claimed ULDC Charges of Rs.12.67Crore for FY 2018-19 for its SLDC Business and the Commission approved Rs.11.76 Crore. In the APR of FY 2018-19, PSTCL claimed Rs.10.73 Crore towards ULDC charges for FY 2018-19. Based on the Audited Annual Accounts of previous year i.e. FY 2017-18 ULDC Charges were Rs.10.73Crore which were allowed by the Commission at the time of Review for FY 2019-20.

In the True up Petition for FY 2018-19, PSTCL has claimed ULDC of Rs.7.68Crore for FY 2018-19 as per Audited Annual Accounts for its SLDC Business and the details are as under:

Table 38: ULDC Charges submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	ULDC Charges - SLDC own share	-	3.64	3.64
2.	ULDC Charges - BBMB share	-	1.12	1.12
3.	NRLDC Charges	-	2.92	2.92
4.	**Total**	-	**7.68**	**7.68**

Accordingly, the Commission approves ULDC charges of Rs.7.68 Crore to PSTCL for its SLDC Business for FY 2018-19.

2.14 Non-Tariff Income

2.14.1 In the ARR Petition of 1st MYT Period, PSTCL had projected Rs. 10.00 Crore of Non-Tariff Income for its Transmission Business and Rs. 1.00 Crore for SLDC Business for FY 2018-19 against which the Commission approved the Non-Tariff Income of Rs. 49.25 Crore for Transmission Business and Rs. 5.41 Crore for its SLDC Business for FY 2018-19.

2.14.2 In the APR for FY 2018-19, PSTCL claimed Rs. 18.94 Crore on account of Non-Tariff Income for Transmission Business and Rs. 1.41 Crore for SLDC Business and the Commission approved the same.

PSTCL's Submission:

2.14.3 In the True-up Petition for FY 2018-19, PSTCL has claimed Rs.18.52 Crore (Rs. 17.75 Crore for Transmission Business and Rs. 0.76 Crore for SLDC Business) on account of Non-Tariff Income based on Audited Annual Accounts for FY 2018-19.

2.14.4 PSTCL submitted that it has not considered the income towards certain heads wherein expenses were not allowed by the Commission in previous Tariff Orders which are discussed as under:

a) Income of Rs. 2.07 Crore towards interest received on refund of income tax has not been considered because the Commission neither allowed expenses under the head of Income Tax nor interest on amount deducted as TDS.

b) Income of Rs. 5.66 Crore towards reversal of excess provision of impairment loss has not been considered because impairment loss was not allowed by the Commission in previous year.

c) Income of Rs. 0.47 Crore towards provision withdrawn on unserviceable / obsolete items and losses under investigation.

d) Income of Rs. 3.03 Crore towards withdrawal of liability of property tax for FY 2014-15 has not been considered as property tax claimed during FY 2014-15 was not allowed by the Commission in true-up.

e) Further Petitioner has also not considered Non-tariff Income of Rs. 6.53 Crore arising out of credit balance written back, wherein expenses were not considered in previous Tariff Orders.

f) PSTCL has considered the 50% of income of Rs. 0.15 Crore towards rebate on early payment to NRLDC, as per the provisions of Regulation 28 of PSERC MYT Regulations, 2014.

PSTCL has submitted Non-Tariff income for FY 2018-19 as under:

Table 39: Non-tariff Income as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Claimed by PSTCL	
		Transmission Business	SLDC Business
I	II	III	IV
1.	Interest Income from Banks Deposits	0.15	0.01
2.	Income from Staff Welfare Activities	0.01	-
3.	Income from O&M bays of PGCIL	5.70	-
4.	Income from Sale of Scrap	4.20	-
5.	Rental from Staff Quarters	0.35	0.03
6.	Sale of Tender forms	0.01	-
7.	NOC Charges of Open Access Consumers	-	0.10
8.	Transmission and SLDC Operating Charges for Open Access Consumers	0.28	0.27
9.	Rebate on early payment of NRLDC	-	0.08
10.	Miscellaneous Income	7.05	0.27
11.	**Total**	**17.75**	**0.76**

Commission's Analysis:

2.14.5 The Non-Tariff Income has been determined as per Regulation-28 of PSERC MYT Regultions-2014 (amended from time to time).

a) The Commission notes that Audited Annual Accounts of PSTCL has shown 'Credit Balance Written Back' as 'Other Income' but PSTCL has not considered it as Non-Tariff in the petition. 'Credit Balance Written Back' indicate money received as advance from supplier, in previous years on different account heads, but not payable now. The Commission considers 'Credit Balance Written Back' of Rs.6.68 Crore as Non-Tariff Income.

b) PSTCL has submitted Rebate on early payment of NRLDC of Rs. 0.08 as Non-Tariff Income. As per the Amendment to Reg. 28 sub clause (q) as stated under

"Following components of income shall be treated as non tariff income for the generation, transmission and distribution business, as applicable:

(q) *Any other income not included above. Provided that only 50% of the „rebate for timely payment of power purchase" received by the licensee shall be considered as non –tariff income."*

The Payment to NRLDC is not a payment of power purchase. PSTCL has added Non-Tariff Income on account of rebate Rs. 0.08 Crore out of Rs 0.15 Crore. The Commission has considered the entire Rs.0.15 i.e. (0.08+0.07) Crore as Non-Tariff Income per the audited accounts.

c) The impairment loss as on 1st April 2017 as per the Balance sheet was Rs.5.01 Crore. The impairment loss booked during FY 2017-18 was Rs.3.58 Crore. The Closing Balance for FY 2017-18 comes to Rs. 8.59 Crore. The same has been considered as Opening Balance for FY 2018-19. Some of the assets were sold during the year at a loss of Rs. 3.66 Crore. On these assets, the earlier impairment loss was booked as Rs. 5.66 Crore. PSTCL withdrew the impairment loss of 5.66 Crore out of the opening balance of Rs. 8.59 Crore. During FY 2018-19, the impairment loss was booked for balance of the assets as Rs.0.91 Crore. Accordingly, the impairment loss as on 31.03.19 of the balance assets is Rs. 3.84 (8.59-5.66+0.91) Crore. PSTCL claimed that whole of the impairment loss has not been allowed by the Commission till date. Since the impairment loss has not been allowed in the previous years, the reversal of impairment loss of Rs. 5.66 Crore on the assets sold during the year is not to be considered as Non-Tariff Income for FY 2018-19.

Accordingly, the Commission determines the Non-Tariff Income as under:

Table 40: Non-Tariff Income for FY 2018-19 approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Transmission Business	SLDC Business	PSTCL
I	II	III	IV	V
1.	Non-Tariff Income as claimed	17.75	0.76	18.51
2.	Credit Balances Written back	5.84	0.84	6.68
3.	Rebate on early payment of NRLDC	-	0.07	0.07
4	**Total**	**23.59**	**1.67**	**25.26**

Accordingly, the Commission approves Rs. 23.59 Crore for Transmission Business and Rs. 1.67 Crore for SLDC Business as Non-Tariff Income for FY 2018-19.

2.15 Other Expenses

PSTCL's Submission:

PSTCL has considered the Other debits of Rs. 3.71 Crore for FY 2018-19 as per Note 35 of Audited accounts, excluding the provisions related to losses and value of obsolete stores.

In addition to this, PSTCL has considered Rs. 3.60 Crore as other expenses as per Note 35.1 of audited accounts. The amount is prior period expenses towards FY 2017-18 which was not claimed in FY 2017-18, however, the same has been adjusted in books of FY 2018-19 and now shown in FY 2017-18 as per the requirement of Ind AS. PSTCL submits that Rs 3.60 Crore comprises of Rs 3.41 Crore for loss on account of Fire incident occurred on April 3, 2017 at Store, Jalandhar and Rs. 0.19 Crore towards theft of materials.

Commission's Analysis:

Regulation 49 of PSERC MYT Regulations 2014 for Distribution Business is reproduced as under:

> ***"49. BAD AND DOUBTFUL DEBTS AND OTHER DEBITS***
>
> *49.1 Bad and doubtful debts shall be allowed to the extent the distribution licensee has identified/actually written off bad debts, subject to a maximum of 1% of annual sales revenue, and according to a transparent policy approved by the Commission. In case, there is any recovery of bad debts already written off, the recovered bad debts will be treated as Other Income.*
>
> *49.2 Other debits including miscellaneous losses and write offs, sundry debts, material cost variance, losses on account of flood, cyclone, fire etc. shall be considered by the Commission."*

The Commission notes that the above Regulation is only applicable for the Distribution Business. However, the Commission is of the opinion that, although the provision for Bad and Doubtful debts (Regulation 49.1) is not applicable for Transmission and SLDC Businesses, the provision for other debits (Regulation 49.2) should be applicable for Transmission and SLDC Businesses. Accordingly, the Commission approves other debits Rs.7.32 Crore as under:

Table 41: Other Debits approved by the Commission for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Amount
I	II	III
1	Loss on account of Fire Incident	3.41
2	Theft of material	0.19
3	Loss on sale of fixed assets	3.67
4	Compensation for injuries, death & damages	0.04
5	Miscellaneous losses & write off on account of theft of Material	0.01
6	**Total Other Debits**	**7.32**

2.16 Annual Revenue Requirement

The summary of the Annual Revenue Requirement for Transmission Business, SLDC Business and overall business of PSTCL for FY 2018-19 is shown in the following tables:

Table 42: Annual Revenue Requirement for Transmission Business for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2018-19	Approved by the Commission in the Review of FY 2018-19	Claimed by PSTCL in the true up of FY 2018-19	Approved by the Commission
I	II	III	IV	V	VI
1.	Employee costs	445.72	477.79	482.73	462.29
2.	R&M and A&G expenses	60.74	50.29	50.40	50.38
3.	Depreciation	298.55	279.16	275.69	275.69
4.	Interest charges	352.94	345.56	364.84	345.25
5.	Interest on Working Capital	39.29	34.31	35.93	32.81
6.	Return on Equity	115.64	114.94	114.64	108.93
7.	Other Expenses	-	-	7.32	7.32
8.	**Annual Revenue Requirement**	**1312.88**	**1302.05**	**1331.55**	**1282.67**
9.	Less: Non tariff Income	49.25	18.94	17.75	23.59
10.	**Net Revenue Requirement**	**1263.63**	**1283.11**	**1313.80**	**1259.08**

Table 43: Annual Revenue Requirement for SLDC for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2018-19	Approved by the Commission in the Review of FY 2018-19	Claimed by PSTCL in the true up of FY 2018-19	Approved by the Commission
I	II	III	IV	V	VI
1.	Employee costs	6.95	6.57	6.82	6.25
2.	R&M and A&G expenses	2.85	1.60	1.37	1.36
3.	Depreciation	1.74	1.08	0.43	0.43
4.	Interest charges	1.68	0.75	0.77	0.91
5.	Interest on Working Capital	0.62	0.43	0.49	0.45
6.	ULDC Charges	9.93	10.73	7.68	7.68
7.	**Annual Revenue Requirement**	23.77	21.16	17.56	17.08
8.	Less: Non-tariff Income	5.41	1.41	0.76	1.67
9.	**Net Revenue Requirement**	**18.36**	**19.75**	**16.80**	**15.41**

The summary of the Annual Revenue Requirement of PSTCL as a whole for FY 2018-19 is as under:

Table 44: Annual Revenue Requirement for PSTCL for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2018-19	Approved by the Commission in the Review of FY 2018-19	Claimed by PSTCL in the true up of FY 2018-19	Approved by the Commission
I	II	III	IV	V	VI
1.	Employee costs	452.67	484.36	489.55	468.54
2.	R&M and A&G expenses	63.59	51.89	51.77	51.74
3.	Depreciation	300.29	280.24	276.12	276.12
4.	Interest charges	354.62	346.31	365.61	346.16
5.	Interest on Working Capital	39.91	34.74	36.42	33.26
6.	Return on Equity	115.64	114.94	114.64	108.93
7.	Other Expenses	-	-	7.32	7.32
8.	ULDC Charges	9.93	10.73	7.68	7.68
9.	**Annual Revenue Requirement**	**1336.65**	**1323.21**	**1349.11**	**1299.75**
10.	Less: Non-tariff Income	54.66	20.35	18.51	25.26
11.	**Net Revenue Requirement**	**1281.99**	**1302.86**	**1330.60**	**1274.49**

2.17 Incentive on Transmission System Availability

PSTCL's Submission:

PSTCL has submitted that in accordance with PSERC MYT Regulations, 2014, the Petitioner is eligible for incentive for overachieving the targets for transmission system availability which has been verified and certified by SLDC. As per PSERC MYT Regulations, 2014, the Normative Annual Transmission System Availability Factor (NATAF) for incentive computation has been considered as 99%. The net transmission charges inclusive of incentive based on fixed charges for Transmission and computation of incentive are given as per the table below.

Table 45: Incentive on Transmission System (TS) Availability for FY 2018-19 submitted by PSTCL

(Rs. Crore)

Sr. No.	Month	TS Availability (%)	Monthly Transmission Charges	Transmission Charges including Incentive	Incentive
I	II	III	IV	V	VI
1.	Apr-18	99.9764%	107.98	109.05	1.07
2.	May-18	99.9643%	111.58	112.67	1.09
3.	Jun-18	99.9575%	107.98	109.03	1.04
4.	Jul-18	99.9704%	111.58	112.68	1.09
5.	Aug-18	99.9821%	111.58	112.69	1.11
6.	Sep-18	99.9806%	107.98	109.05	1.07
7.	Oct-18	99.9876%	111.58	112.70	1.11
8.	Nov-18	99.9853%	107.98	109.06	1.07
9.	Dec-18	99.9908%	111.58	112.70	1.12
10.	Jan-19	99.9458%	111.58	112.65	1.07
11.	Feb-19	99.7468%	100.78	101.55	0.76
12.	Mar-19	99.9869%	111.58	112.70	1.11
13.	**Total**		**1313.80**	**1326.51**	**12.71**

Commission's Analysis:

The Commission observes that MYT Regulations, 2014, specifies that Normative Annual Transmission System Availability Factor (NATAF) for the Control Period shall be 99% for incentive consideration. And, the transmission system availability of PSTCL has been verified by SLDC. Accordingly, the Commission determines the incentive for over achievement of transmission system availability by PSTCL, on the basis of the ARR of Transmission Business approved in **Table 45** of this Tariff Order, as under:

Table 46: Incentive on Transmission System (TS) Availability for FY 2018-19 determined by the Commission

(Rs. Crore)

Sr. No.	Month	TS Availability (%)	Transmission Charges inclusive of Incentive	Monthly Transmission Charges	Incentive
I	II	III	IV	V	VI
1.	Apr-18	99.9764%	104.50	103.48	1.02
2.	May-18	99.9643%	107.98	106.94	1.04
3.	Jun-18	99.9575%	104.49	103.48	1.01
4.	Jul-18	99.9704%	107.98	106.94	1.04
5.	Aug-18	99.9821%	108.00	106.94	1.06
6.	Sep-18	99.9806%	104.51	103.48	1.03
7.	Oct-18	99.9876%	108.00	106.94	1.06
8.	Nov-18	99.9853%	104.51	103.48	1.03
9.	Dec-18	99.9908%	108.01	106.94	1.07
10.	Jan-19	99.9458%	107.96	106.94	1.02
11.	Feb-19	99.7468%	97.32	96.58	0.74
12.	Mar-19	99.9869%	108.00	106.94	1.06
13.	**Total**		**1,271.26**	**1,259.08**	**12.18**

Thus, the Commission allows the incentive of Rs. 12.18 Crore for FY 2018-19 to PSTCL for achieving higher transmission system availability than the Normative Annual Transmission System Availability Factor (NATAF) specified in the MYT Regulations, 2014.

2.18 Unadjusted Revenue Gap for FY 2017-18

PSTCL Submission:

2.18.1 The Commission in Tariff Order for FY 2018-19 had approved Net ARR of Rs. 1233 Crore for FY 2017-18 after APR. The carrying cost of Rs. 7.06 Crore was also approved after True-up for FY 2016-17 to PSTCL. Accordingly, the net amount of Rs. 1240.06 Crore was considered in ARR of PSPCL for FY 2017-18 towards Intra-State Transmission Charges.

PSTCL claims the unadjusted revenue gap of Rs. 7.06 Crore in ARR for FY 2018-19.

Commission's Analysis:

The Commission has rightly allowed the ARR to PSTCL in Tariff Order for FY 2018-19. However, the Carrying cost of Rs.7.06 Crore has not been given to PSPCL in Tariff Order for FY 2018-19. The same is being allowed to PSPCL under the head "Impact of Previous Orders" in True-up of FY 2018-19 of PSPCL.

2.19 Net Annual Revenue Requirement

The summary of the Annual Revenue Requirement for Transmission Business, SLDC Business and overall business of PSTCL for FY 2018-19 is shown in the following tables:

Table 47: Annual Revenue Requirement for Transmission Business for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2018-19	Approved by the Commission in the Review of FY 2018-19	Claimed by PSTCL in the true up of FY 2018-19	Approved by the Commission
I	II	III	IV	V	VI
1.	**Net Revenue Requirement**	**1263.63**	**1283.11**	**1313.80**	**1259.08**
2.	Incentive	-	-	12.71	12.18
3.	Unadjusted revenue gap	-	-	7.06	-
4.	**ARR**	**1263.63**	**1283.11**	**1333.57**	**1271.26**

Table 48: Annual Revenue Requirement for SLDC for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2018-19	Approved by the Commission in the review of FY 2018-19	Claimed by PSTCL in the true up of FY 2018-19	Approved by the Commission
I	II	III	IV	V	VI
1.	**Net Revenue Requirement**	**18.36**	**19.75**	**16.80**	**15.41**

The summary of the Annual Revenue Requirement of PSTCL as a whole for FY 2018-19 is as under:

Table 49: Annual Revenue Requirement for PSTCL for FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2018-19	Approved by the Commission in the review of FY 2018-19	Claimed by PSTCL in the true up of FY 2018-19	Approved by the Commission
I	II	III	IV	V	VI
1.	**Annual Revenue Requirement**	**1281.99**	**1302.86**	**1330.60**	**1274.49**
2.	Incentive	0.00	0.00	12.71	12.18
3.	Unadjusted revenue gap	0.00	0.00	7.06	-
4.	**Aggregate Revenue Requirement**	**1281.99**	**1302.86**	**1350.37**	**1286.67**

The Commission vide Order dated 19th April 2018 had approved the Net Revenue Requirement (NRR) of Rs. 1281.99 Crore for FY 2018-19. Net Revenue Requirement determined during Annual Performance Review by the Commission on its Order dated 27.05.2019 as Rs. 1302.86 Crore for FY 2018-19. **Now, the Net ARR after truing up exercise for FY 2018-19 is re-determined as Rs.1286.67Crore which was payable by PSPCL as Transmission & SLDC Charges of FY 2018-19.**

Chapter 3
Annual Performance Review of FY 2019-20

3.1 Background

PSTCL has projected the Annual Performance Review (APR) for FY 2019-20, separately for its Transmission business and SLDC business. The Commission in its Order dated October 23, 2017 for the 1st MYT Control Period had approved the Net ARR of Rs. 1337.15 Crore for PSTCL for FY 2019-20. Further, in Tariff Order for FY 2019-20, the Commission approved Net ARR of Rs. 1329.60 Crore for PSTCL. The Commission has analysed the APR submitted by PSTCL in this chapter.

3.2 Transmission System Availability

PSTCL has submitted that Regulation 55 of PSERC MYT Regulations, 2014 specifies the Normative Annual Transmission Availability Factor (NATAF) of 98% for recovery of Annual Fixed Charges and 99% for incentive on account of higher Transmission Availability. The average transmission system availability of PSTCL from April to September 2019 (H1) is as per below table:

Table 50: Transmission System (TS) Availability of PSTCL for FY 2019-20 (H1)

Sr. No.	Month	TS Availability (%)
I	II	III
1.	April, 2019	99.9745
2.	May, 2019	99.9707
3.	June, 2019	99.9566
4.	July, 2019	99.9814
5.	August, 2019	99.9785
6.	September, 2019	99.9820
7.	**Average Availability**	**99.9740**

PSTCL has further submitted that it has maintained the transmission availability well above the Normative Annual Transmission Availability Factor as mandated by PSERC MYT Tariff Regulations, 2014.

The Commission has taken note of the submission of PSTCL.

3.3 Transmission Loss

PSTCL, in the APR has projected the transmission loss of 3.00% for FY 2019-20 against the provisionally approved Transmission losses of 2.50% in the Tariff Order for FY 2019-20.

PSTCL's Submission:

PSTCL has submitted actual transmission loss for the period from April 2019 to August 2019 as under:

Table 51: Actual Transmission Loss submitted by PSTCL for FY 2019-20

Sr. No.	Month	Energy injected in PSTCL Substations (in MWh) (A)	Energy exported from PSTCL Substations (in MWh) (B)	PSTCL Transmission Losses (A-B)	PSTCL Transmission Losses (%age)
I	**II**	**III**	**IV**	**V**	**VI**
1.	April,2019	4,427,377.14	4,314,129.19	113,247.96	2.56
2.	May,2019	5,408,503.44	5,318,118.60	90,384.84	1.67
3.	June,2019	7,198,677.90	6,991,035.13	207,642.77	2.88
4.	July,2019	7,697,685.64	7,519,637.42	178,048.22	2.31
5.	August,2019	7,547,102.72	7,388,645.51	158,457.21	2.10
6.	**Total Losses for FY 2019-20 (April,19-August,19)**	32,279,346.84	31,531,565.85	747,781.00	2.32

PSTCL has made a comparison of the prevalent transmission losses in some of other State Transmission Utilities in 2017-18 and observed that the transmission losses in other states are higher than the actual transmission losses in the state of Punjab (3.12% for 2017-18 and 2.86% in FY 2018-19).

PSTCL has further submitted that it is important to appreciate the loss levels in extra high voltage networks of Power Grid Corporation of India (PGCIL) are in the range of 4-5% and varies across seasons. Also, it is important to note that despite being on extra high voltage levels, the loss levels in PGCIL are significantly higher in comparison to the lower voltage networks operated by PSTCL. Given the voltage levels, loading conditions and other constraints, the loss levels in PSTCL network are relatively better than similarly placed transmission companies. PSTCL has also stated that with the proposed addition in the network, the overall losses in the system are likely to remain in the range of 3-3.50%. The transmission system is being developed for N-1 compliance in accordance with the CEA standards. Accordingly, some lines will remain underutilized which may lead to increase in no load losses thereby increasing transmission losses.

In view of the above, based on the actual stabilised data of transmission losses available, PSTCL has requested the Commission to approve the Transmission Loss of 3.00% for FY 2019-20.

Commission's Analysis:

PSTCL has submitted that its actual Transmission losses for FY 2019-20 (till August 2019) are 2.32%, as mentioned in **Table 51**. In its submissions regarding status of compliance of the directives given by the Commission, PSTCL has intimated the actual transmission losses as under:

Table 52: Transmission losses submitted by PSTCL

Sr. No.	Month	PSTCL Transmission losses (%)
I	**II**	**III**
1.	April,2019	2.56
2.	May,2019	1.67
3.	June, 2019	2.88
4.	July, 2019	2.31
5.	August, 2019	2.10
6.	September, 2019	1.70
7.	October,2019	2.13
8.	November,2019	2.35
9.	December,2019	2.38
10.	**Total Losses (April,2019-Dec,2019)**	**2.22**

The Commission observes that the actual Transmission loss reported by PSTCL till December of FY 2019-20 is coming to 2.22%. Since losses in the lean months (Jan-March) are observed to be comparatively higher, the Commission decides to provisionally retain the transmission loss level at 2.50% as approved in the Tariff Order of FY 2019-20. The transmission losses for FY 2019-20 shall be revisited based on the data of actual losses for the full year during the True Up of the year.

3.4 Capital Expenditure

PSTCL's Submission:

3.4.1 PSTCL submits that, in accordance with Regulation 9 and 10 of PSERC MYT Regulations, 2014, it has filed Petition for approval of Capital Investment Plan (Petition No. 44 of 2016) for the 1st MYT Control Period from FY 2017-18 to FY 2019-20. In the said Petition, PSTCL has also submitted the Capital Expenditure for FY 2019- 20 and considered spill over works.

3.4.2 Accordingly, the Capital Expenditure proposed for FY 2019-20 is shown in the following Table:

Table 53: Capital Expenditure submitted by PSTCL for FY 2019-20

(Rs. Crore.)

Sr. No.	Particulars	Revised CIP in Tariff Order for FY 2019-20	Submitted by PSTCL for APR
I	II	III	IV
1.	**Transmission Business**	227.28	366.39
2.	**SLDC**	10.00	3.47
3.	**Total PSTCL**	237.28	369.86

Commission's Analysis:

3.4.3 The Commission vide its Order dated 13.12.2017 in Petition No. 44 of 2016 has approved the Capital Investment Plan of Rs. 202.64 Crore and Rs.10 Crore for Transmission and SLDC businesses respectively for FY 2019-20. Further, during processing of Tariff Order for FY 2019-20, PSTCL submitted two decisions of Board of Directors of PSTCL approving urgent, unforeseen and feasibility related works chargeable to the head "Addition of Bays/System Strengthening", Augmentation/Strengthening of Bus Bars" and "Unforeseen emergency works" categorized as Category I works amounting to Rs. 31.83 Crore against the provision of Rs. 14 Crore in MYT CIP Order. Accordingly, the Commission noted in Tariff Order for FY 2019-20 that the CIP of Transmission Business for FY 2019-20 including category 1 works, comes out to be Rs. 220.47 Crore (Rs. 202.64 Cr – Rs. 14.0 Cr + Rs. 31.83 Cr). The Commission also decided to include Rs. 6.81 Crore (i.e. the difference between the approved CIP of Rs. 328.29 Crore and actual expenditure of Rs. 321.48 Crore during FY 2017-18) in the CIP for Transmission Business for FY 2019-20 and accordingly approved provisional CIP of Rs. 227.28 Crore (Rs. 220.47 Crore + Rs. 6.81 Crore).

3.4.4 The CIP approved in the CIP Order dated 13.12.2017 for 1st MYT Control Period, revised in the Tariff Order for FY 2019-20 and Capex submitted by PSTCL for APR of FY 2019-20 is tabulated below:

Table 54: Capital Investment Plan and Capital expenditure submitted by PSTCL

(Rs. Crore)

Sr. No.	Description	Approved in 1st CIP Order	Revised CIP in Tariff Order for FY 2019-20	Capital Expenditure submitted by PSTCL in the Petition
I	II	III	IV	V
1.	Transmission Business	202.64	227.28	366.39*
2.	SLDC Business	10.00	10.00	3.47
3.	Total PSTCL	212.64	237.28	369.86

***-including IDC & IEDC**

3.4.5 The Regulation 9.10 (Capital Investment Plan) of the PSERC (Terms and Conditions for Determination of Generation, Transmission, Wheeling and Retail Supply Tariff) Regulations, 2014) provides that the capital expenditure incurred on unapproved schemes and not covered under Regulation 9.9 shall not be allowed by the Commission. In line with the said provision of the Regulations, the Commission observed that Capital Expenditure in respect of Transmission Business against approved schemes is Rs. 332.42 Crore only.

3.4.6 PSTCL has submitted capital expenditure of Rs. 6.63 Crore for the Schemes approved by the Board in FY 2019-20. The same were not part of the capital expenditure originally approved by the Commission for the 1st MYT Control Period. Therefore, the capital expenditure for these schemes is not considered for APR of FY 2019-20 and the same shall be dealt during the True-up of Capital Expenditure of 1stMYT Control period.

3.4.7 During the various meetings with PSTCL authorities, the Commission also noted that PSTCL has not yet started some of the schemes for which Capital investment has been projected in the petition. Accordingly, PSTCL was directed to review the same. In its revised submission through email dated 27.02.2020, PSTCL, has revised the expenditure from Rs. 182.4 Crore to Rs. 74 Crore for FY 2019-20 of approved schemes being spilled over to 2nd MYT period. With this, the projected Capital Expenditure for FY 2019-20 becomes Rs. 224.02 (332.42-182.4+74) Crore for approved schemes for FY 2019-20, which is within the limits of the CIP approved in Tariff Order for FY 2019-20. **Accordingly, the Commission provisionally approves the Capital expenditure of Rs. 224.02 Crore for FY 2019-20 for Transmission Business.**

3.4.8 Further, the Commission notes that the projected Capital expenditure for SLDC business for FY 2019-20 is Rs. 3.47 Crore against the approved plan of Rs. 10 Crore in the CIP Order. **Accordingly, the Commission approves the Capital expenditure of FY 2019-20 as Rs. 3.47 Crore for SLDC business.**

3.4.9 Thus, the Capital Expenditure approved by the Commission is as under:

Table 55: Capital Expenditure approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1	Capital Expenditure	224.02	3.47	227.49

3.5 Capital Works and its Funding

PSTCL's Submission:

3.5.1 The details for Capital Work in Progress for Transmission and SLDC as submitted by

PSTCL for FY 2019-20 are shown in the following table:

Table 56: Capital Work in Progress for FY 2019-20 as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Tariff Order	APR	Revised Submission
I	II	III	IV	V
	Transmission			
1.	Opening Capital Work in Progress	160.46	334.96	334.96
2.	Add: Addition of Capital Expenditure during the year	227.28	366.39	224.02
3.	Less: Transferred to fixed assets during the Year	92.21	454.18	361.98
4.	Closing Capital Work in Progress	295.53	247.17	197.00
	SLDC			
5.	Opening Capital Work in Progress	7.13	9.93	9.93
6.	Add: Addition of Capital Expenditure during the year	10.00	3.47	3.47
7.	Less: Transferred to fixed assets during the Year	17.13	-	-
8.	Closing Capital Work in Progress	-	13.40	13.40

Commission's Analysis:

3.5.2 The Opening CWIP for FY 2019-20 is taken from Closing CWIP of FY 2018-19. The Commission notes that the Capital expenditure for FY 2019-20 against the approved schemes is Rs. 224.02 Crore (including IDC, IEDC) for Transmission Business and Rs.3.47 Crore for SLDC Business. As per the revised submissions of PSTCL, the Capitalization for Transmission business is Rs.361.98 Crore and there is no capitalization for SLDC Business. The same is approved by the Commission. The Capital Works in progress for Transmission and SLDC are approved as under:

Table 57: CWIP for FY 2019-20 approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Tariff Order	APR
I	II	III	IV
	Transmission		
1.	Opening Capital Work in Progress	160.46	306.52
2.	Add: Addition of Capital Expenditure during the year	227.28	224.02
3.	Less: Transferred to fixed assets during the Year	92.21	361.98
4.	Closing Capital Work in Progress	295.53	168.56
	SLDC		
5.	Opening Capital Work in Progress	7.13	9.89
6.	Add: Addition of Capital Expenditure during the year	10.00	3.47
7.	Less: Transferred to fixed assets during the Year	17.13	-
8.	Closing Capital Work in Progress	-	13.36
9.	Total Capital Work in Progress (PSTCL)	295.53	181.92

3.5.3 In addition to the above, PSTCL has also considered the capitalization of Rs. 14.00 Crore towards PSDF Scheme. The Commission has also considered the same for

R&M expenses and the capitalisation is approved as under:

Table 58: Capitalization for R&M expenses for Transmission business

(Rs. Crore)

Sr. No.	Particulars	FY 2018-19
I	II	III
1.	Capitalization of approved schemes	361.98
2.	Capitalisation towards PSDF scheme	14.00
3.	Total Capitalization for Transmission business	375.98

Funding of Capital Expenditure

PSTCL's Submission:

3.5.4 PSERC MYT Regulations, 2014 specifies the normative debt: equity ratio of 70:30. PSTCL has considered the equity amount at 30% of the capital expenditure, in accordance to the methodology followed in past Tariff Orders. The remaining funding of capital works shall be carried out by taking loans from banks and/or financial institutions.

The funding of capital expenditure as proposed by PSTCL for FY 2019-20 is shown in the following Table:

Table 59: Funding of capital expenditure as proposed by PSTCL for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Tariff Order	Projected
I	II	III	IV
	Transmission		
1.	Equity	68.18	109.92
2.	Debt	159.10	256.47
3.	**Total**	**227.28**	**366.39**
	SLDC		
4.	Equity	3.00	1.04
5.	Debt	7.00	2.43
6.	**Total**	**10.00**	**3.47**

Commission's Analysis:

3.5.5 As explained in Para 2.5.7 of this Order, the Commission cannot consider the addition of equity for FY 2019-20 due to non-availability of free reserves. The revised submission on capital works for FY 2019-20 for Transmission is now Rs. 224.02 Crore and Rs. 3.47 Crore for SLDC as mentioned in Table 56.

Therefore, the Commission allows the funding of Capital Expenditure of Rs.227.49 Crore as loan as under:

Table 60: Funding of Capital Expenditure for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	Amount
I	**II**	**III**	**IV**	**V**
1.	Provisionally approved Capital Expenditure for FY 2019-20 to be funded as loan	224.02	3.47	227.49

Out of Rs. 227.49 Crore of loan requirements, Rs. 224.02 Crore are considered for Transmission Business and Rs. 3.47 Crore for SLDC Business.

3.6 Employee Cost

PSTCL's Submission:

3.6.1 The Commission approved the Employee Cost of Rs.505.63 Crore for FY 2019-20 against PSTCL's claim of Rs. 531.58 Crore for FY 2019-20 in MYT Order dated 23.10.2017.

3.6.2 PSTCL has claimed employee cost on Normative basis. Since, WPI and CPI index are available till September 2019, the escalation index has been computed as per provisions of PSERC MYT Regulations, 2014. The increase in CPI index for the period from H1 of FY 2019-20 over H1 of FY 2018-19 works out as 7.45% and increase in WPI index as 1.76%. With weightage of 50:50, the inflation factor has been worked out as 4.61%.

3.6.3 Further, as per the first amendment of PSERC MYT Regulations, 2014, the other Employee Cost in FY 2018-19 has to be taken as the base for computing normative Employee Cost for FY 2019-20. PSTCL has adopted the approach for consideration of Gross Other Employee Cost as baseline for projection purpose. The employee expenses capitalised has been calculated separately for respective year.

3.6.4 Accordingly, PSTCL has calculated normative Net Other Employee costs for FY 2019-20, as under:

Table 61: Other Employee Costs submitted by PSTCL for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	Base Year (FY 2018-19) Gross Other Employee Cost	230.50	6.69	237.19
2.	Inflation Factor	4.61%	4.61%	
3.	**Gross Other Employee Cost**	**241.12**	**7.00**	**248.12**
4.	Less Employee Cost Capitalised	40.24	0.00	40.24
5.	**Net Other Employee Costs**	**200.88**	**7.00**	**207.88**

3.6.5 PSTCL has considered the Terminal benefits for employees of erstwhile PSEB of Rs. 307.10 Crore as approved in Tariff Order for FY 2019-20. The terminal liabilities of

NPS for new employees recruited by PSTCL is considered as Rs. 4.80 Crore. PSTCL has submitted its claim for terminal benefits for FY 2019-20 as given in Format T5. The relevant extract of the Format T5 is reproduced as under:

Table 62: Terminal Benefits submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2018-19	FY 2019-20
I	II	III	IV
1.	Share of Earned Leave Encashment	21.09	307.10
2.	Share to Pension, Gratuity and Medical	265.95	
3.	Any Other Item (specify)	-	
4.	Miscellaneous - PF inspection fees, Solatium, Memento etc.	0.39	
5.	Provision for Gratuity & leave encashment for employees recruited by PSTCL	4.07	
6.	NPS, CPF, PF, LWF	4.58	4.80
7.	**Sub Total**	**296.08**	**311.90**

3.6.6 PSTCL has computed and prayed to approve the Normative Employee Costs for FY 2019-20 as shown in the Table below:

Table 63: Total Employee Costs submitted by PSTCL for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Other Employee Costs	200.88	7.00	207.88
2.	Terminal Benefits	311.90	-	311.90
3.	**Employee Cost**	**512.78**	**7.00**	**519.78**

Commission's Analysis:

Terminal Benefits

3.6.7 PSTCL's share of @11.36% of terminal benefits of employee of erstwhile PSEB cannot be ascertained for Transmission Business as the Audited Annual Accounts of FY 2019-20 for PSTCL are not available at this stage.

3.6.8 PSTCL has claimed the Terminal benefit of Rs. 307.10 for FY 2019-20 without separating the provision for Gratuity and leave encashment for employees recruited by PSTCL. However, PSTCL has separated the claim for the same provision for FY 2018-19 as mentioned in **Table 62**. The Commission has not approved this provision during the True Up of FY 2018-19 as explained in Para **2.6.7** of this order. The Commission worked out the amount of Provision for Gratuity & leave encashment for FY 2019-20 using the actual of FY 2018-19 as under

Table 64: Calculation of provision for Gratuity and leave encashment for employees recruited by PSTCL for FY 2019-10

(Rs. Crore)

Sr. No.	Particulars	FY 2018-19	FY 2019-20
I	II	III	IV
1.	NPS, CPF, PF, LWF	4.58	4.80
2.	Provision for Gratuity & leave encashment for employees recruited by PSTCL	4.07	4.27 (4.07 x 4.80 / 4.58)

3.6.9 The Commission has not considered the provision of Rs.4.27 Crore of Gratuity & leave encashment for employees recruited by PSTCL for FY 2019-20 and hence deducted this amount from Rs.307.10 Crore.

3.6.10 The Commission has allowed the contribution of Rs.4.58 Crore to NPS, CPF, PF, LWF in the True-up FY 2018-19. PSTCL has claimed Rs.4.80 Crore towards contribution to NPS, CPF, PF, LWF and the same is allowed by the Commission for FY 2019-20.

3.6.11 **Thus, The Commission allows terminal benefits as Rs. 307.63 (307.10 - 4.27+ 4.80) Crore as claimed for FY 2019-20 for Transmission Business.** Terminal benefits towards Provision for Gratuity & leave encashment for employees recruited by PSTCL will be allowed as per actual during True-Up based on Annual Audited Accounts.

Other Employee Cost

3.6.12 Employee Costs are to be determined as per Regulation 26.1 of PSERC MYT Regulations, 2014 (as amended from time to time). Relevant sections of Regulation 26 of MYT Regulations, 2014 are reproduced below for reference:

(ii) EMPn = (EMPn-1)*(INDEX n/INDEX n-1)

- ***INDEXn*** *- Inflation Factor to be used for indexing the Employee Cost.*
- *This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) of nth year and shall be calculated as under:-*

INDEXn = 0.50*CPIn + 0.50*WPIn

*'**WPIn**' means the average rate (on monthly basis) of Wholesale Price Index (all commodities) over the year for the nth year.*

*'**CPIn**' means the average rate (on monthly basis) of Consumer Price Index (Industrial workers) over the year for the nth year.*

"… Note 2: For the purpose of estimation, the same WPIn and CPIn values shall be used for all years of the Control Period. However, the Commission will consider the actual values of the WPIn and CPIn at the end of each year during the Annual Performance Review exercise and true up the Employee cost on account of this variation. Further, the Commission will consider the actual values of the WPIn at the end of each year during the Annual Performance Review exercise and true up the R&M and A&G Expenses on account of this variation."

Since the CPI and WPI values are available only till December 2019, the Commission has considered the actual values available for APR and calculated the ***INDEXn*** as under:

Table 65: WPI and CPI Increase considered for FY 2019-20

Sr. No.	Particulars	FY 2018-19 (Apr '18-Dec '18)	FY 2019-20 (Apr '19-Dec '19)	Increase (%)
I	II	III	IV	V
1.	CPI	297.33	320.67	7.85
2.	WPI	119.88	121.71	1.53

INDEX n/INDEX n-1 = (0.5*7.85) +(0.5*1.53) = **4.69%**

3.6.13 The Normative Other Employee Cost is calculated as under:

Table 66: Employee cost for FY 2019-20 approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	**Base Employee Cost approved for FY 2017-18**	**180.68**	**6.38**	**187.06**
2.	Escalation Factor *(CPI:WPI::50:50)**	4.86%	4.86%	4.86%
3.	**Other Employee Cost for FY 2018-19**	**189.46**	**6.69**	**196.15**
4.	Escalation Factor *(CPI:WPI::50:50)*	4.69%	4.69%	4.69%
5.	**Other Employee Cost for FY 2019-20**	**198.35**	**7.00**	**205.35**
6.	Terminal Benefits	307.63	-	307.63
7.	**Total Employee Cost**	**505.98**	**7.00**	**512.98**

*-as considered in True-up of FY 2018-19

The Commission approves Employee Cost of Rs.505.98 Crore for Transmission Business and Rs.7.00 Crore for SLDC Business i.e. Rs.512.98 Crore for PSTCL FY 2019-20.

3.7 Repair & Maintenance (R&M) and Administrative and General (A&G) expenses

3.7.1 The Commission in its MYT Order dated 23.10.2017, approved R&M and A&G Expenses of Rs.67.71 Crore for FY 2019-20 against its claim of Rs.66.86 Crore. In the Tariff Order dated 27.05.2019, the Commission approved R&M and A&G expenses as Rs.55.87 Crore against PSTCL's claim of Rs.72.51 Crore for FY 2019-20.

PSTCL's Submission:

3.7.2 Based on the revised submission of capital expenditure and capitalisation for FY 2019-20, PSTCL has computed the revised R&M and A&G Expenses for FY 2019-20. The same k-factor has been considered as approved in the Tariff Order for FY 2019-20. The inflation factor is worked out as 1.76%. Accordingly, PSTCL has submitted the combined R&M and A&G expenses for Transmission business and SLDC as under:

Table 67: R&M and A&G expenses claimed by PSTCL for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	FY 2019-20		
		Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Opening GFA	9778.75	17.51	9796.26
2.	Closing GFA	10246.93	17.51	10264.44
3.	k-factor	0.496%	7.293%	
4.	Inflation factor	1.76%	1.76%	
5.	**R&M and A&G Expenses**	**50.54**	**1.30**	**51.84**
6.	Add: Audit Fee	0.50	-	0.50
7.	Add: License Fee and ARR Fee	0.17	-	0.17
8.	**Grand Total**	**51.21**	**1.30**	**52.51**

PSTCL has requested to approve normative R&M and A&G Expenses as computed above for FY 2019-20.

Commission's Analysis:

3.7.3 As per 26.1 Regulation of PSERC MYT Regulations, R&M and A&G expenses are to be determined as under:

(i) R&Mn + A&Gn = K*GFA*(WPIn/WPIn-1)

Where,

- ***'K'*** *is a constant (expressed in %) governing the relationship between R&M and A&G expenses and Gross Fixed Assets (GFA) for the nth year. The value of "K" will be specified by the Commission in the MYT order.*
- ***'GFA'*** *is the average value of the Gross Fixed Assets of the nth year.*
- ***'WPIn'*** *means the average rate (on monthly basis) of Wholesale Price Index (all commodities over the year for the nth year.*

Note 7: Any expenditure on account of license fee, initial or renewal, fee for determination of tariff and audit fee shall be allowed on actual basis, over and above the A&G expenses approved by the Commission."

The Opening GFA for the purpose of R&M and A&G Expenses of FY 2019-20 is considered from Closing GFA of FY 2018-19.

'K' has been determined during True-up of FY 2017-18. R&M and A&G expenses for FY 2019-20 are determined by multiplying K factor with their respective values of Average Gross Fixed Assets. The Commission considers WPI increase of 1.53% as mentioned in Table 65.

The Commission has considered the addition of GFA as approved for FY 2019-20 in Table 58. The Commission has also considered the capitalization of Rs. 14 Crore towards PSDF scheme as submitted by PSTCL.

The Commission determines R&M and A&G expenses for FY 2019-20 including Audit and Licensee fees as under:

Table 68: R&M and A&G expenses for FY 2019-20 based on K factor and indexation determined bythe Commission

(Rs Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Opening GFA for the purpose of R&M and A&G	9777.77	18.36	9796.13
2.	Addition during the year	375.98	-	375.98
3.	Closing GFA for the purpose of R&M and A&G	10153.75	18.36	10172.11
4.	Average GFA	9965.76	18.36	9984.12
5.	**K factor**	**0.496%**	**7.29%**	
6.	WPI increase	1.53%	1.53%	
7.	**R&M and A&G expenses after WPI increase**	**50.19**	**1.36**	**51.55**
8.	Add: Audit fee	0.50	0.00	0.50
9.	Add: License fee	0.17	0.00	0.17
10.	**Total R&M and A&G expenses**	**50.86**	**1.36**	**52.22**

Accordingly, the Commission approves R&M and A&G expenses of Rs.50.86 Crore for Transmission Business & Rs.1.36 Crore for SLDC Business of FY 2019-20 i.e. Rs.52.22 Crore for PSTCL.

O&M Expenses for PSTCL:

The total O&M expenses for PSTCL for FY 2019-20 are as given in the table below:

Table No 68A: O&M expenses approved by the Commission for FY 2019-20

(Rs. Crore)

Sr. No	Particulars	Transmission	SLDC	PSTCL
1.	Employee Cost	505.98	7.00	512.98
2.	A&G and R&M	50.86	1.36	52.22
3.	**TOTAL**	**556.84**	**8.36**	**565.20**

3.8 Depreciation

3.8.1 The Commission in its MYT Order dated 23.10.2017, approved Depreciation of

Rs.317.74 Crore for FY 2019-20 against its claim of Rs.371.36 Crore. In the Tariff Order dated 27.05.2019, the Commission approved depreciation as Rs.293.33 Crore against PSTCL's claim of Rs.351.20 Crore for FY 2019-20.

3.8.2 **PSTCL's Submission:**

In the current Petition, PSTCL has claimed depreciation charges for its Transmission Business and SLDC Business for FY 2019-20 as under:

Table 69: Depreciation claimed by PSTCL for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	Opening GFA (Net of Land and Land Rights)	6,856.69	12.76	6,869.45
2.	Assets additions during the Year	468.18	-	468.18
3.	Assets replacement/ retirement	-	-	-
4.	Closing GFA	7,324.87	12.76	7,337.63
5.	Wt. Avg. Rate of Depreciation	4.12%	3.34%	
6.	**Depreciation**	**292.21**	**0.43**	**292.64**

Commission's Analysis:

3.8.3 The Commission has considered Regulation 21 of the PSERC MYT Regulations, 2014, as amended from time to time, in order to determine the depreciation for FY 2019-20. The Opening GFA (net of land & land rights and Consumer Contribution) of FY 2019-20 is considered as Rs. 6799.17 Crore from the Closing GFA for FY 2018-19 as per para 2.8.5 of this order. The addition to GFA has been considered as approved earlier by the Commission in Para 3.5.2.

3.8.4 The Commission determines depreciation for Transmission and SLDC Business, based on actual rate of depreciation of 4.157% say 4.16% for Transmission Business and 3.34% for SLDC Business determined during True-Up of FY 2018-19 of PSTCL, as under:

Table 70: Depreciation approved by the Commission for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1	Opening GFA (Net of Land and Land Rights)	6786.40	12.77	6799.17
2	Assets additions during the Year	375.98	0.00	375.98
3	Less: capitalization due to PSDF Scheme	14.00	0.00	14.00
4	Closing GFA	7148.38	12.77	7161.15
5	Average GFA	6967.39	12.77	6980.16
6	Wt. Avg. Rate of Depreciation	4.16%	3.34%	
7	**Depreciation**	**289.63**	**0.43**	**290.06**

Thus, the Commission approves depreciation charges of Rs.289.63 Crore for

Transmission Business and Rs.0.43 Crore for SLDC Business i.e. Rs.290.06 Crore for PSTCL for FY 2019-20.

3.9 Interest and Finance charges

3.9.1 **PSTCL's Submission:**

In the MYT Petition for the Control Period, the Commission approved the Interest and Finance charges of Rs.392.59 Crore for FY 2019-20 as against Rs.405.35 Crore claimed by PSTCL. The Commission in its Tariff Order dated 27.05.2019 approved the Interest and Finance Charges of Rs.351.62 Crore for FY 2019-20 against PSTCL's claim of Rs. 367.60 Crore.

3.9.2 In the current Petition, PSTCL has claimed interest charges of Rs.360.42 Crore for Transmission Business & Rs.0.82 Crore for SLDC Business of FY 2019-20.

3.9.3 PSTCL claimed interest on long-term loan for Transmission & SLDC Business as under:

Table 71: Interest on loan claimed by PSTCL for Transmission Business for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Opening Balance	3,828.93	7.29	3,836.22
2.	Loan addition during year	256.47	2.43	258.90
3.	Loan Repayment during year	340.95	0.35	341.30
4.	Closing Balance	3,744.45	9.37	3,753.82
5.	Interest Charges	376.17	0.82	377.00
6.	Less: Interest Capitalised	21.05	-	21.05
7.	Add: Guarantee Charges	5.30	-	5.30
8.	**Interest & Finance Charges**	**360.42**	**0.82**	**361.25**

3.9.4 The outstanding existing loan includes loan from REC, LIC, PFC, Commercial banks, Loan from PSPCL and GPF Liability. The repayment of these existing loans and interest expenses has been considered as per their repayment schedule.

3.9.5 PSTCL has proposed new loans for the proposed investments from Banks/Financial Institution at actual weighted average rate of Interest.

3.9.6 The addition of loan has been considered equivalent to debt amount as submitted in the present Petition. It has also been stated that three years moratorium period has been considered for the new loan taken for funding of capital expenditure for FY 2019-20.

Commission's Analysis:

3.9.7 The Commission has considered the long-term loans and has not taken into consideration the working capital loans to calculate the interest and finance charges. The Commission has considered the repayment of loans as under:

Table 72: Loans for Transmission Business as Considered by the Commission for FY 2019-20

(Rs. Crore)

Sr. No.	Name of Source	Loan Repaid
I	**II**	**III**
1.	REC	257.93
2.	SBI	12.79
3.	NABARD	18.61
4.	PSPCL	0.95
5.	**Total for Transmission Business**	**290.28**

3.9.8 The Commission has considered the weighted average rate of interest on loans as approved in the True-up of FY 2018-19 in this Order i.e. as 10.001% for Transmission business and 10.33% for SLDC Business.

3.9.9 The Commission has provisionally approved capital expenditure Rs. 227.49 Crore for PSTCL. The Commission approves a loan addition of Rs.227.49 Crore out of which Rs.224.02 is for Transmission business and Rs. 3.47 Crore for SLDC Business as explained in Para 3.5.5.

3.9.10 The Closing loan of FY 2018-19 is considered as opening loan for FY 2019-20. The Commission has calculated the interest on loan as under:

Table 73: Interest on loan as approved by the Commission for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	Opening Loan	3595.63	10.86	3606.49
2.	Addition of loans	224.02	3.47	227.49
3.	Repayment of loans	290.28	0.35	290.63
4.	Closing loan	3529.37	13.98	3543.35
5.	Average loan	3562.50	12.42	3574.92
6.	Rate of Interest	10.001%	10.33%	
7.	**Interest on loan**	**356.30**	**1.28**	**357.58**

Interest on GPF Fund

3.9.11 Interest of Rs.7.77 Crore on average amount of GPF Fund of Rs.76.84 Crore for FY 2019-20 has been claimed for Transmission Business.

The Interest on GPF being a statutory payment is allowed for FY 2019-20 as claimed by PSTCL.

Finance and Guarantee charges

3.9.12 PSTCL claimed finance charges and guarantee fee of Rs.5.30 Crore for FY 2019-20 on the loan requirement of Rs. 256.47 Crore. The Commission has worked out the loan requirement of Rs.224.02 Crore and approved proportionate Finance charges and guarantee fees of Rs.4.63 (5.30 x 224.02 / 256.47) Crore for FY 2019-20. **Accordingly, the Commission approves finance charges and guarantee fees as Rs.4.63 Crore for FY 2019-20.**

Capitalization of Interest Charges

3.9.13 PSTCL has originally claimed Capitalization of interest and finance charges of Rs. 21.05 Crore for FY 2019-20. As per the revised submission of PSTCL, the IDC works out as 12.60 Crore. The Commission has considered Rs. 12.60 Crore as Capitalization of interest and finance charges.

3.9.14 Since, PSTCL has not paid and claimed Finance and Guarantee charges on the loan for SLDC Business. Accordingly, the Commission determines Interest and Finance Charges for Transmission Business as under:

Table 74: Interest and Finance charges approved by the Commission for FY 2019-20

(Rs. Crore)

Sr. No	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1.	Interest charges	356.30	1.28	357.58
2.	Interest on GP Fund	7.77	-	7.77
3.	Add Finance/Guarantee charges	4.63	-	4.63
4.	Total Interest charges	368.70	1.28	369.98
5.	Less: Interest capitalized	**12.60**	**-**	**12.60**
6.	**Net Interest charges**	**356.10**	**1.28**	**357.38**

Thus, the Commission approves interest and finance charges of Rs.356.10 Crore for Transmission Business and Rs.1.28 Crore for SLDC Business i.e. Rs.357.38 Crore for PSTCL for FY 2019-20.

3.10 Interest on Working Capital

3.10.1 **PSTCL's Submission:**

PSTCL has claimed interest of Rs.38.66 Crore for FY 2019-20 for Transmission Business, on normative basis, on a total working capital of Rs. 359.34 Crore. Similarly, PSTCL has claimed interest of Rs. 0.57 Crore for FY 2019-20 for SLDC Business, on normative basis, on a total working capital of Rs.5.28 Crore.

The details of claim for the working capital requirement and Interest on working capital are as under:

Table 75: Interest on working capital for Transmission and SLDC Business for FY2019-20 claimed by PSTCL

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Receivables equivalent to two months of fixed cost	227.74	3.35	231.09
2.	Maintenance spares @ 15% of O&M Expenses	84.60	1.24	85.84
3.	Operation and Maintenance expenses for one month	47.00	0.69	47.69
4.	**Total Working Capital Requirement**	**359.34**	**5.28**	**364.62**
5.	Rate of Interest	10.76%	10.76%	10.76%
6.	**Interest on Working Capital**	**38.66**	**0.57**	**39.23**

3.10.2 PSTCL has submitted that it has computed the working capital requirement in accordance with Regulation 54 of PSERC MYT Regulations, 2014 for Transmission and SLDC Business. PSTCL, further stated that as per Regulation 54.2, the rate of interest on working capital shall be as per regulation 25.1 which is as under:

"25.1 The rate of interest on working capital shall be equal to the weighted average rate of interest paid/payable on loans by the licensee/generating company/SLDC or the State Bank of India Advance Rate as on April 1 of the relevant year, whichever is less. The interest on working capital shall be payable on normative basis, notwithstanding that the licensee/generating company/SLDC has not taken working capital loan from any outside agency or has exceeded the working capital loan amount worked out on the normative figures."

3.10.3 PSTCL has taken the actual weighted average rate of interest based on actual working capital loans for H1 of FY 2019-20 i.e. 10.76%.

3.10.4 **Commission's Analysis:**

The Commission has considered the rate of interest on working capital for the Transmission and SLDC Business as approved by the Commission during True-up of FY 2018-19 in this Order. The Commission determines Interest on working capital approved as under:

Table 76: Interest on working capital loans for Transmission and SLDC Business approved by the Commission for FY 2019-20

(Rs. Crore)

Sr.No	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Receivables for two months	220.47	2.76	223.23
2.	Maintenance spares @15% of O&M expenses	83.53	1.25	84.78
3.	O&M expenses for one month	46.40	0.70	47.10
4.	Working capital requirement	350.40	4.71	355.11
5.	Rate of Interest (%)	9.96%	10.33%	
6.	**Interest on working capital**	**34.89**	**0.49**	**35.38**

The Commission approves the interest on working capital of Rs. 34.89 Crore for working capital requirement of Rs.350.40 Crore for Transmission Business and the interest of Rs. 0.49 Crore for working capital requirement of Rs. 4.71 Crore for SLDC Business i.e. Rs.35.38 Crore for PSTCL for FY 2019-20.

3.11 Return on Equity (RoE)

3.11.1 **PSTCL's Submission:**

The Commission in its MYT Order dated 23.10.2017, approved Return on Equity of Rs.126.58 Crore for FY 2019-20 against PSTCL's Claim of Rs.123.83 Crore. Further, the Commission in its Tariff Order dated 27.05.2019 approved the RoE as Rs.126.46 Crore against Rs.136.95 Crore as claimed by PSTCL

In the current Petition, PSTCL has claimed RoE of Rs.110.96 Crore for FY 2019-20 as under:

Table 77: Return on Equity claimed by PSTCL for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	FY 2019-20
I	II	III
1.	Opening Equity	776.38
2.	Add: Addition of equity during the year	110.96
3.	Closing Equity	887.34
4.	Rate of RoE	15.50%
5.	**Return on Equity**	**128.94**

3.11.2 PSTCL has considered the addition of equity equivalent to 30% of capital expenditure to the extent for Return of Equity.

Commission's Analysis:

3.11.3 The Commission has determined the Return on Equity for the Control Period in accordance with Regulation 20 of PSERC MYT Regulations, 2014.

3.11.4 No addition of equity has been considered as discussed in **para 3.5.5.**

3.11.5 The Commission determines Return on Equity @15.50% on average equity of the year as under:

Table 78: Return on Equity approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	FY 2019-20
I	II	III
1.	Opening Equity	702.80
2.	Add: Addition to equity during the year	**0.00**
3.	Closing Equity	702.80
4.	Average Equity	702.80
5.	Rate of RoE	15.50%
6.	**Return on Equity**	**108.93**

The Commission, thus, approves RoE of Rs.108.93 Crore for PSTCL for FY 2019-20.

3.12 Unified Load Dispatch & Communication (ULDC) Charges

3.12.1 PSTCL has claimed Rs.10.73 Crore for FY 2019-20 towards ULDC charges.

Since ULDC Charges are decided by CERC from time to time, the Commission finds it appropriate to allow ULDC charges of Rs.7.68 Crore for FY 2019-20 based on Audited Annual Accounts of FY 2018-19.

3.13 Non-Tariff Income

PSTCL's Submission:

3.13.1 The Commission in its Tariff Order dated 23.10.2017 has approved Non-tariff Income of Rs.49.25 Crore for Transmission Business and Rs.5.41 Crore for SLDC Business for FY2019-20 as against PSTCL's claim of Non-Tariff Income of Rs.10 Crore for Transmission Business and Rs.1 Crore each for SLDC Business for FY 2019-20.

3.13.2 Further, the Commission in its Tariff Order dated 27.05.2019 has approved Non-Tariff Income for FY 2019-20 as Rs.18.94 Crore for Transmission Business and Rs. 1.41 Crore for SLDC Business.

3.13.3 PSTCL has claimed Non-Tariff Income of Rs.17.75 Crore for Transmission Business and Rs.0.76 Crore for SLDC Business of FY 2019-20. PSTCL further submitted that it has claimed Non-Tariff Income at the same level as actual Non-Tariff Income for FY 2018-19.

Commission's Analysis:

3.13.4 Non-Tariff Income is determined as per PSERC Regulation-28 of MYT Regulations-2014.

The Commission approves Non-tariff Income as Rs.23.59 Crore for Transmission Business and Non-Tariff Income of Rs.1.67 Crore for SLDC Business i.e. Rs.25.26 Crore for PSTCL for FY 2019-20 as approved in the True Up of FY 2018-19.

3.14 Carrying Cost of Previous Years

3.14.1 The Commission allowed carrying cost of (-) Rs 3.77 Crore in para 3.13 of Tariff Order for FY 2019-20. The same amount is being recovered from the ARR of FY 2019-20.

3.15 Annual Revenue requirement

The summary of the Annual Revenue Requirement for Transmission Business, SLDC Business and overall business of PSTCL for FY 2019-20 is shown in the following tables:

Table 79: Annual Revenue Requirement for Transmission Business for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2019-20	Claimed by PSTCL in the APR of FY 2019-20	Approved by the Commission
I	II	III	IV	V
1.	Employee Expenses	498.86	512.78	505.98
2.	R&M and A&G expenses	53.34	51.21	50.86
3.	Depreciation	291.67	292.21	289.63
4.	Interest charges	324.48	360.42	356.10
5.	Interest on Working Capital	35.26	38.66	34.89
6.	Return on Equity	126.46	128.94	108.93
7.	**Annual Revenue Requirement**	**1330.07**	**1384.22**	**1346.39**
8.	Less: Non-tariff Income	18.94	17.75	23.59
9.	**Net Revenue Requirement**	**1311.13**	**1366.47**	**1322.80**

Table 80: Annual Revenue Requirement for SLDC Business for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2019-20	Claimed by PSTCL in the APR of FY 2019-20	Approved by the Commission
I	II	III	IV	V
1.	Employee Expenses	6.77	7.00	7.00
2.	R&M and A&G expenses	2.53	1.30	1.36
3.	Depreciation	1.66	0.43	0.43
4.	Interest charges	1.36	0.82	1.28
5.	Interest on Working Capital	0.60	0.57	0.49
6.	ULDC Charges	10.73	10.73	7.68
7.	**Annual Revenue Requirement**	**23.65**	**20.85**	**18.24**
8.	Less: Non-tariff Income	1.41	0.76	1.67
9.	**Net Revenue Requirement**	**22.24**	**20.09**	**16.57**

Table 81: Annual Revenue Requirement for PSTCL for FY 2019-20

(Rs. Crore)

Sr. No.	Particulars	Approved in Tariff Order for FY 2019-20	Claimed by PSTCL in the APR of FY 2019-20	Approved by the Commission
I	II	III	IV	V
1.	Employee Expenses	505.63	519.78	512.98
2.	R&M and A&G expenses	55.87	52.51	52.22
3.	Depreciation	293.33	292.64	290.06
4.	Interest charges	325.84	361.25	357.38
5.	Interest on Working Capital	35.86	39.23	35.38
6.	Return on Equity	126.46	128.94	108.93
7.	ULDC Charges	10.73	10.73	7.68
8.	**Annual Revenue Requirement**	**1353.72**	**1405.07**	**1364.63**
9.	Less: Non-tariff Income	20.35	18.51	25.26
10.	**Net Revenue Requirement**	**1333.37**	**1386.56**	**1339.37**
11.	Past Revenue Gap/ (surplus)	(3.77)	(3.77)	(3.77)
12.	**Annual Revenue Requirement**	**1329.60**	**1382.80**	**1335.60**

Chapter 4
Annual Revenue Requirement for 2nd MYT Control Period FY 2020-21 to FY 2022-23

4.1 Background

The Commission has issued the PSERC MYT Regulations, 2019. In accordance with the provisions of these Regulations, PSTCL has projected the Annual Revenue Requirement Review (ARR) for FY 2020-21 to FY 2022-23 for its Transmission business and SLDC business separately. The Commission has analysed the same in this chapter.

Regulation 15.1 of PSERC MYT Regulations, 2019 specifies the Components of ARR for Transmission and SLDC Businesses as below:

> *"15.1. The ARR of the Transmission business and SLDC business shall comprise of the following components:*
>
> *(a) Return on Equity;*
>
> *(b) Interest and Finance Charges on Loan Capital;*
>
> *(c) Interest Charges on Working Capital;*
>
> *(d) Depreciation;*
>
> *(e) Operation and Maintenance Expenses;*
>
> *(f) ULDC Charges;*
>
> *(g) Statutory levies and taxes, if any."*

4.2 Transmission System Availability

PSTCL's Submission:

PSTCL has submitted that the System Availability of their transmission network has always remained higher than target availability of 99% as per historical trends. PSERC MYT Regulations 2019, specify that the Normative Annual Transmission Availability Factor (NATAF) for recovery of fixed cost shall be 98.5% and incentives shall be payable for availability above 99%. Further, no incentive shall be payable for availability beyond 99.75%.

Considering the above, PSTCL submits that the availability of the network will be aligned to the normative limits set as per Regulation 52.1 of PSERC MYT Regulations, 2019 as mentioned above.

Commission's Analysis:

The Commission has taken note of PSTCL's submission.

4.3 Transmission Loss

PSTCL's Submission:

PSTCL, in its Petition for Capital Investment Plan and Business Plan filed before the Commission, has projected the trajectory for Transmission Losses for the Control Period from FY 2020-21 to FY 2022-23. Given the different schemes envisaged under the capital expenditure plan, PSTCL has proposed a constant loss level of 3.00% over the control period from FY 2020-21 to FY 2022-23.

Table 82: Transmission Losses for FY 2020-21 to FY 2022-23

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV
Transmission Loss (%)	3.00%	3.00%	3.00%

Commission's Analysis:

In the Business Plan Order including the Capital Investment Plan dated 03rd December 2019, the Commission has approved the Transmission loss trajectory of reduction of 0.02% every year for 2nd MYT Control Period. The Commission stated that the Transmission losses for the Control Period shall be specified accordingly on the basis the actual losses for FY 2019-20.

Since the actual losses of FY 2019-20 shall be available after the True-Up of FY 2019-20, therefore, keeping in view the transmission loss level of 2.50% approved for FY 2019-20 in this Tariff Order, the Commission decides to provisionally set the trajectory as given below:

Table 83: Transmission loss Trajectory provisionally approved by the Commission for the 2ndMYT Control Period

Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV
Transmission Loss (%)	2.48%	2.46%	2.44%

4.4 Capital Expenditure

PSTCL's Submission:

PSTCL has considered the capital expenditure for its Transmission and SLDC Business in line with the Capital Investment Plan submitted before the Commission and subsequent submissions made thereafter. The capital expenditure for the Control Period is summarized as under:

Table 84: Capital Expenditure for FY 2020-21 to FY 2022-23 submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Capital Expenditure for Transmission Business	705.26	731.48	677.30
2.	Capital Expenditure for SLDC Business	24.23	16.35	12.45
3.	Total for PSTCL	729.49	747.83	689.75

PSTCL has also clarified that the above capital expenditure does not include the capital expenditure towards Contributory works and works under PSDF Scheme. The asset addition on account of such schemes/works have been considered separately.

Further, PSTCL has made a revised submission during the presentation before the Commission to consider the Capital expenditure as approved by the Commission in the Business Plan Order including the Capital Investment Plan (CIP) dated 03rd December 2019. The revised Capital Expenditure is as under:

Table 85: Capital Investment Plan approved by the Commission in the CIP Order

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Capital Expenditure for **Transmission Business**	612.78	618.35	550.20
2.	Capital Expenditure for SLDC **Business**	25.22	17.80	13.42
3.	Total for PSTCL	638.00	636.15	563.62

Commission's Analysis

The Commission has approved the Capital Investment Plan for the 2ndMYT Control Period in the Order dated 03rd December 2019 as mentioned in the Table above.

The approved CIP also included the provisional CIP of Rs. 535.73 Crore for approved schemes of 1st MYT Control Period spilling over to the 2ndMYT Control Period subject to PSTCL furnishing justification for the spillover schemes. The relevant extract of the same is reproduced below:

"During the various discussions and meetings conducted with PSTCL, reasons for the cost escalation and delay were sought. However, no satisfactory reply was submitted to the Commission. Therefore, the Commission provisionally approves the Capital Investment Plan amounting to Rs. 535.73 Cr. for the spillover schemes of Transmission Business subject to PSTCL furnishing

justification of the escalated cost of 37 schemes which have an escalation of greater than or equal to 20% within 30 days of issuance of this order."

In response thereof, PSTCL submitted the reply vide email dated 11.02.2020. The Commission held various meeting with PSTCL and noted that PSTCL has not yet started some of the schemes approved in 1st MYT control period. Accordingly, PSTCL was directed to review the schemes spilling over to the 2nd MYT Control Period. In its revised submission vide email dated 27.02.2020, PSTCL has submitted the details of spill over schemes as under:

Table 86: Capital expenditure of Spillover schemes as revised by PSTCL

(Rs. Crore)

Sr. No.	Description	Schemes	FY 2020-21	FY 2021-22	FY 2022-23	Total
I	II	III	IV	V	VI	VII
1.	Approved schemes Spillover from 1st MYT Control period	38 Nos.	171.59	88.45	70.35	330.39
2.	Deferred scheme from 1st MYT control period to 2nd MYT control period	15 Nos.	94.08	120.54	50.56	265.18
	Total	53 Nos.	265.67	208.99	120.91	595.57

The Commission notes that PSTCL has revised the projected plan of spillover schemes from Rs. 535.73 Crore to Rs. 595.57Crore. Further, the Commission observes that 15 Nos. schemes amounting to Rs. 265.18 Crore has not been started yet and are required to be considered as new schemes for MYT 2nd Control Period.

The Capital Investment Plan for SLDC Business is considered as approved by the Commission in the CIP Order. Accordingly, the revised CIP for 2nd MYT control period of PSTCL works out as under:

Table 87: Revised CIP for 2ndMYT Control Period

(Rs. Crore)

Sr. No.	Description	FY 2020-21	FY 2021-22	FY 2022-23	Total
I	II	III	IV	V	VI
1.	Approved Spillover schemes from 1st MYT Control period	171.59	88.45	70.35	330.39
2.	Deferred Schemes of 1st MYT Control period	94.08	120.54	50.56	265.18
3.	Other schemes approved for 2nd MYT control period	396.30	435.92	413.39	1245.61
4.	**Revised CIP for Transmission Business**	**661.97**	**644.91**	**534.30**	**1841.18**
5.	**SLDC Business**	**25.22**	**17.79**	**13.42**	**56.43**
6.	**Total CIP**	**687.19**	**662.70**	**547.72**	**1897.61**

Accordingly, the projected CIP for 2nd MYT control period comes out to Rs. 687.19 Crore, Rs.662.70 Crore and Rs.547.72 Crore for FY 2020-21, FY 2021-22 and FY 2022-23respectively.

However, keeping in view the trend of PSTCL's CAPEX during the 1st MYT Control Period, and as discussed with PSTCL during the meeting dated 24.02.2020, the Commission thinks it appropriate to cap the Capital Investment of PSTCL to Rs. 400 Crore during each year for the 2nd MYT from FY 2020-21 to FY 2022-23. This assumes greater importance due to the COVID-19 pandemic and its consequences on the economy. However, PSTCL shall be at liberty to prioritize the approved schemes within the above limit.

The CIP Order dated 3rd December 2019 in petition no. 19 of 2019 stands amended to that extent.

The Capital Expenditure for the 2ndMYT Control Period approved by the Board in FY 2019-20 outside the first MYT approval is also considered as Spillover Schemes as these schemes have started in FY 2019-20 and shall continue in the 2ndMYT Control Period. The same was also approved in the CIP Order dated 3rd December 2019.

Assuming that the Spillover schemes and the Deferred schemes of 1stMYT Control Period shall be prioritized first, the Capital Expenditure for Spillover schemes and new schemes works out as under:

Table 88: Capital Expenditure approved by the Commission for the 2ndMYT Control Period

(Rs. Crore)

Sr. No.	**Particulars**		**FY 2020-21**	**FY 2021-22**	**FY 2022-23**
I	**II**		**III**	**IV**	**V**
1	Capital Expenditure for Transmission Business	Approved Schemes spilled over from 1st MYT Control Period	171.59	88.45	70.35
		Schemes approved by the Board in FY 2019-20 outside the first MYT approval	74.41	44.06	25.39
		Total Spillover Schemes	**246.00**	**132.51**	**95.74**
		Deferred Schemes of 1stMYT Control period	94.08	120.54	50.56
		New Schemes approved in 2nd CIP Order	34.70	129.15	240.28
		Total New Schemes	**128.78**	**249.69**	**290.84**
		Total	374.78	382.20	386.58
2	Capital Expenditure for SLDC Business	Spillover Schemes	2.19	0.21	0.23
		New Schemes	23.03	17.59	13.19
		Total	25.22	17.80	13.42
3	Total for PSTCL		400.00	400.00	400.00

4.5 Capital Works and its Funding

PSTCL's Submission:

4.5.1 PSTCL has considered the capital expenditure and capitalization for its Transmission and SLDC Business in line with the Capital Investment Plan as submitted before the Commission. The capital expenditure and capitalization for the Control Period is summarized as under:

Table 89: Capital Expenditure for FY 2020-21 to FY 2022-23

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
Transmission				
1	Opening Capital Work in Progress	247.16	659.56	1,208.64
2	Capital Expenditure	705.26	731.48	677.30
3	Capitalisation	292.86	182.40	1,305.97
4	Closing Capital Work in Progress	659.56	1,208.64	579.97
SLDC				
1	Opening Capital Work in Progress	13.40	29.53	44.06
2	Capital Expenditure	24.23	16.35	12.45
3	Capitalisation	8.10	1.82	51.03
4	Closing Capital Work in Progress	29.53	44.06	5.48
PSTCL				
1	Opening Capital Work in Progress	260.56	689.09	1252.70
2	Capital Expenditure	729.49	747.83	689.75
3	Capitalisation	300.96	184.22	1357.00
4	Closing Capital Work in Progress	689.09	1252.70	585.45

4.5.2 PSTCL has considered the Regulation 19 of PSERC MYT Regulations, 2019 that provides a normative debt: equity ratio as 70:30. PSTCL has been borrowing funds from SBI, PFC, REC, Bank of India and Indian Overseas Bank. The appropriate tie-ups will be made with these banks/Financial institutions along with others to make good the investments required for the capital investment plan. Accordingly, the funding of capital expenditure for 2ndMYT Control Period for Transmission and SLDC Business is shown in the following Table:

Table 90: Funding of Capital expenditure for 2nd MYT Control Period for Transmission and SLDC Business as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	**II**	**III**	**IV**	**V**
	Transmission			
1.	Equity	211.58	219.44	203.19
2.	Debt	493.68	512.04	474.11
3.	**Total**	**705.26**	**731.48**	**677.30**
	SLDC			
4.	Equity	7.27	4.91	3.74
5.	Debt	16.96	11.45	8.72
6.	**Total**	**24.23**	**16.36**	**12.46**
	PSTCL			
1.	Equity	**218.85**	**224.35**	**206.93**
2.	Debt	**510.64**	**523.49**	**482.83**
3.	**Total**	**729.49**	**747.84**	**689.76**

4.5.3 PSTCL has made a revised submission during the presentation before the Commission to consider the Capitalization as approved by the Commission in the Business Plan Order including the Capital Investment Plan (CIP) dated 03rd December 2019. Further, PSTCL has again revised the CIP vide email dated 27.2.2020 and requested to consider the funding accordingly. The revised Capitalization is as under:

Table 91: Capitalization approved by the Commission in the CIP Order dated 03.12.2019

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	**II**	**III**	**IV**	**V**
Transmission				
1.	Capital Expenditure	612.78	618.35	550.20
2.	Capitalisation	274.04	158.37	1,070.43
SLDC				
1.	Capital Expenditure	25.22	17.80	13.42
2.	Capitalisation	7.87	1.93	54.30
PSTCL				
1.	Capital Expenditure	638.00	636.15	563.62
2.	Capitalisation	281.91	160.30	1124.73

Commission's Analysis:

4.5.4 The Opening Capital Work in Progress is considered from the Closing Capital Work in Progress approved in the APR of FY 2019-20 in this Order.

4.5.5 Considering the revised submission of PSTCL for capital expenditure as given in **Table**, the revised Capitalization and Capital Work in Progress is worked out as under:

Table 92: Capital Works in Progress as per revised submission of PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
Transmission				
1	Opening Capital Work in Progress	168.56	674.46	1,167.87
2	Capital Expenditure	661.97	644.91	534.30
3	Capitalisation	156.07	151.50	1,080.09
4	Closing Capital Work in Progress	674.46	1,167.87	622.08
SLDC				
1	Opening Capital Work in Progress	13.36	30.71	46.58
2	Capital Expenditure	25.22	17.80	13.42
3	Capitalisation	7.87	1.93	51.88
4	Closing Capital Work in Progress	30.71	46.58	8.12
PSTCL				
1	Opening Capital Work in Progress	181.92	705.17	1214.45
2	Capital Expenditure	687.19	662.71	547.72
3	Capitalisation	163.94	153.43	1131.97
4	Closing Capital Work in Progress	705.17	1214.45	630.20

Since the Capital Investment approved is capped to Rs.400 Crore for each year of the 2ndMYT Control Period and assuming that the Spillover schemes shall be prioritized, the Commission has proportionately considered the Capitalization for the 2ndMYT Control Period. PSTCL has also clarified during various discussions that the Capital Expenditure and Capitalization approved in the 2nd CIP Order does not include the Consumer Contribution/ Government Grants. The Commission has considered the same in this Order for determining depreciation, loan and R&M Expenses. The Capital Work in Progress works out as under:

Table 93: Capital Work in Progress approved by the Commission for the 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars		FY 2020-21	FY 2021-22	FY 2022-23
I	II		III	IV	V
	Transmission				
1.	Opening Capital Work in Progress		168.56	403.16	619.23
2.	Capital Expenditure	Spillover Schemes	246.00	132.51	95.74
		New Schemes	128.78	249.69	290.84
		Total	374.78	382.20	386.58
3.	Capitalisation	Spillover Schemes	126.04	107.96	321.69
		New Schemes	14.14	58.18	535.84
		Total	140.18	166.14	857.53
4.	Closing Capital Work in Progress		403.16	619.23	148.28
	SLDC				
1.	Opening Capital Work in Progress		13.36	30.71	46.58
2.	Capital Expenditure	Spillover Schemes	2.19	0.21	0.23
		New Schemes	23.03	17.59	13.19
		Total	25.22	17.80	13.42
3.	Capitalisation	Spillover Schemes	7.87	-	2.42
		New Schemes	-	1.93	51.88
		Total	7.87	1.93	54.30
4.	Closing Capital Work in Progress		30.71	46.58	5.70
	PSTCL				
1.	Opening Capital Work in Progress		181.92	433.87	665.81
2.	Capital Expenditure	Spillover Schemes	248.19	132.72	95.97
		New Schemes	151.81	267.28	304.03
		Total	400.00	400.00	400.00
3.	Capitalisation	Spillover Schemes	133.91	107.96	324.11
		New Schemes	14.14	60.11	587.72
		Total	148.05	168.07	911.83
4.	Closing Capital Work in Progress		433.87	665.81	153.98

4.5.6 PSTCL has submitted that in addition to the capitalisation, PSTCL has also considered the capitalisation towards PSDF scheme of Rs. 18.88 Crore for FY 2020-21, Rs. 6.36 Crore for FY 2021-22 and Rs.50.34 Crore for FY 2022-23.

4.5.7 Thus, the Capitalization considered for R&M expenses for Transmission business is as under:

Table 94: Capitalization for R&M expenses for Transmission business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1	Capitalization of approved schemes	140.18	166.14	857.54
2	Capitalisation towards PSDF scheme	18.88	6.36	50.34
3	Total Capitalization for Transmission business	159.06	172.49	907.87

4.5.8 As explained in Para 2.5.7 of this Order, the Commission cannot consider the addition of equity for the 2nd MYT Control Period due to non-availability of free reserves. The addition of equity shall be considered during the True Up of respective years as per the Audited Annual Accounts.

However, the Commission allows the funding through loan as explained below:

During the 2nd Capital Investment Plan, the Financing Plan was given as per the Capital expenditure approved by the Commission. Since, the funding of assets is to be approved for PSTCL only after the assets are put to use, the Commission has decided to fund the new schemes on Capitalization. In order to avoid funding of the Spillover schemes twice, the Commission has considered to fund the Spillover Schemes as per capital expenditure incurred for FY 2020-21 to FY 2022-23.

Based on approved amount of capital expenditure and capitalization as mentioned in Table 93 and Table 94, the Commission determines funding for the 2ndMYT Control Period as under:

Table 95: Funding of Spillover schemes for Transmission Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Loan requirement i.e.100 % of capital expenditure	246.00	132.51	95.74

Table 96: Funding of New schemes for Transmission Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Loan requirement i.e.100 % of Capitalization	14.14	58.18	535.84

Table 97: Funding of Spillover schemes for SLDC Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Loan requirement i.e.100 % of capital expenditure	2.19	0.21	0.23

Table 98: Funding of New schemes for SLDC Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Loan requirement i.e.100 % of Capitalization	-	1.93	51.88

4.6 Operation and Maintenance Expenses

Baseline Values

PSTCL's Submission:

Regulation 8.1 of PSERC MYT Regulations, 2019 specifies that baseline values for the Control Period shall be determined by the Commission and the projections for the Control Period shall be based on these figures. These baseline values shall be inter-alia based on figures approved by the Commission in the past, latest audited accounts, estimates of the expected figures for the relevant year, industry benchmarks/norms and other factors considered appropriate by the Commission. Also, it is specified that the Commission may change the values for Base Year and consequently the trajectory of parameters for the Control Period, considering the actual figures from audited accounts.

As per Multi Year Tariff principles, the base year shall be the previous year of the first year of Control period. Hence, for the Control Period from FY 2020-21 to FY 2022-23, the base year shall be FY 2019-20. It is also noted, actual values of FY 2019-20 are not available at this stage. Hence, for the purpose of this Petition, the Petitioner relied on audited accounts for FY 2018-19. However, the Petitioner craves leave to submit the revised trajectory for the control period based on audited accounts for FY 2019-20.

Commission's Analysis:

Regulation 8.1 of PSERC MYT Regulations, 2019 specifies that baseline values for the Control Period shall be determined by the Commission and the projections for the Control Period shall be based on these figures. The relevant regulations are reproduced below:

8.1. Baseline Values

"….. (b) The baseline values shall be inter-alia based on figures approved by the Commission in the past, last three years' Audited/Provisional Accounts, estimate of the expected figures for the relevant year, industry benchmarks/norms and other factors considered appropriate by the Commission:

Provided further that the Commission may change the values for Base Year and consequently the trajectory of parameters for the Control Period, considering the actual figures from audited accounts."

The actual other employee expenses and A&G expenses in the past three years are as under:

Table 99: PSTCL's Actual expenses for FY 2016-17 to FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	FY 2016-17	FY 2017-18	FY 2018-19
I	II	III	IV	V
1.	Other Employee expenses	179.04	187.06	176.53
2.	Net A&G expenses	17.98	27.97	25.88

4.6.1 On observing the figures above, the Commission decided to consider the audited accounts of FY 2018-19 to calculate the baseline values. The ARR shall be revised by taking into consideration the actual expenses of FY 2019-20 and other norms/benchmarks subsequently.

Considering the actual other employee expenses for FY 2018-19 and the escalation factor as approved during the True-up of FY 2018-19 in this Order i.e. 4.8649% say 4.86%, the Commission has determined the Base Other employee expenses as under:

Table 100: Calculation of Base Other employee expenses

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	II	III	IV	V
1.	Actual other employee expenses of FY 2018-19	170.41	6.12	176.53
2.	Escalation factor	4.86%	4.86%	4.86%
3.	**Employee expenses of FY 2019-20**	**178.70**	**6.42**	**185.12**
4.	Escalation factor	4.86%	4.86%	4.86%
5.	**Base other employee Expenses for FY 2020-21**	**187.39**	**6.73**	**194.12**

The Commission considers the net A&G expenses as indicated in the latest Audited Annual Accounts of FY 2018-19 for baseline value for FY 2020-21 and subsequent years. PSTCL claimed an amount, Rs.0.17 Crore as Audit Fee and Rs.0.50 Crore as License fee during FY 2018-19. The Commission has not considered these expenses for baseline value. As such, the Commission determines base line value of A&G expenses for Transmission Business and SLDC Business for the 2ndMYT Control Period as under:

Table 101: Calculation of Base A&G expenses for 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC	PSTCL
I	**II**	**III**	**IV**	**V**
1	Actual A&G expenses of FY 2018-19	24.95	0.93	25.88
2	Less: Audit fees	0.17	-	0.17
3	Less: License fees	0.50	-	0.50
4	A&G Expenses	24.28	0.93	25.21
5	Escalation factor	4.86%	4.86%	4.86%
6	A&G Expenses for FY 2019-20	25.46	0.98	26.44
7	Escalation factor	4.86%	4.86%	4.86%
8	**A&G Expenses for FY 2020-21**	**26.70**	**1.02**	**27.72**

4.6.2 The O&M expenses for the 2nd MYT Control Period have been projected as per the Regulation 26 of the PSERC MYT Regulations, 2019. The Regulation has been reproduced as under:

"26.1. The O&M expenses for the nth year of the Control Period shall be approved based on the formula shown below:

O&Mn = (R&Mn + EMPn + A&Gn) x (1-Xn)

Where,

R&Mn –Repair and Maintenance Costs of the Applicant for the nth year;

EMPn –Employee Cost of the Applicant for the nth year;

A&Gn –Administrative and General Costs of the Applicant for the nth year;

It should be ensured that all such expenses capitalized should not form a part of the O&M expenses being specified here."

4.6.3 **Employee Expenses and Administrative & General Expenses**

PSTCL's Submission:

1) Employee Expenses

4.6.4 PSTCL has computed the O&M Expenses for Control period on normative basis.For projection of Employee Costs for the Control Period, PSTCL has considered the Employee costs for FY 2019-20 as base values.

4.6.5 PSTCL has submitted that the actual payout on account of terminal liabilities in respect of pensioners has been considered as per Punjab Power Sector Reforms Transfer Scheme approved by the Government of Punjab.

4.6.6 The employees recruited by PSTCL are covered under New Pension Scheme (NPS) and are entitled to gratuity under the provisions of the Payment of Gratuity Act, 1972 and the leave salary under the Leave Rules of the Corporation. The liability has been created for meeting the current terminal liabilities of gratuity and leave encashment in respect of employees recruited by PSTCL in compliance of AS 15 issued by the ICAI. PSTCL has considered the Terminal benefits for these employees recruited after 16 April, 2010. PSTCL has projected the Terminal Benefits for the employees of erstwhile PSEB and employees recruited by PSTCL as shown in the following Table:

Table 102: Terminal Benefits from FY 2020-21 to FY 2022-23 submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Terminal benefits for employees of erstwhile PSEB	322.09	328.38	335.30
2.	Terminal benefits for NPS for new employees recruited by PSTCL	5.02	5.25	5.49
3.	**Terminal Benefits**	327.11	333.63	340.79

4.6.7 For projection of other employee cost, PSTCL has considered the Gross Employee Costs for FY 2019-20 as submitted in the Petition and employee costs capitalised has been projected for each year of the Control Period. The inflation factor has been considered as 4.61% based on CPI and WPI Index available for the period from April to September 2019. Accordingly, PSTCL has computed the Employee Costs for Transmission and SLDC Business for the 2ndMYT Control Period as shown in the Table below:

Table 103: Employee Cost submitted by PSTCL for the 2ndMYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
	Transmission Business			
1.	Other Gross Employee Cost for previous Year	241.12	252.23	263.85
2.	Inflation Factor	4.61%	4.61%	4.61%
3.	Other Employee Cost	252.23	263.85	276.00
4.	Less: Employee Cost capitalised	40.83	41.43	42.04
5.	Net Other Employee Cost (A)	211.40	222.42	233.97
6.	Terminal Benefits (B)	327.11	333.63	340.79
7.	**Employee Costs (A+B)**	**538.51**	**556.05**	**574.75**
	SLDC			
8.	Other Gross Employee Cost for previous Year	7.00	7.32	7.66
9.	Inflation Factor	4.61%	4.61%	4.61%
10.	Other Employee Cost	7.32	7.66	8.01
11.	Less: Employee Cost capitalised	0.00	0.00	0.00
12.	Net Other Employee Cost (A)	7.32	7.66	8.01
13.	Terminal Benefits (B)	-	-	-
14.	**Employee Costs (A+B)**	**7.32**	**7.66**	**8.01**

4.6.8 Further, PSTCL has prayed to the Commission to approve Pay Revisions arrears which will be claimed additionally at the time of actual payment.

2) A&G Expenses

4.6.9 PSTCL has considered the actual A&G Expenses for FY 2018-19 as base values. The baseline A&G Expenses are considered as Rs. 24.95 Crore for Transmission Business and Rs. 0.93 Crore for SLDC based on audited accounts for FY 2018-19. The inflation factor has been considered as 4.61% for FY 2020-21 to FY 2022-23. Accordingly, A&G Expenses for Control Period is projected as shown in the following Table:

Table 104: A&G Expenses submitted by PSTCL for the 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
	Transmission Business			
1	A&G Expenses for previous year	26.10	27.31	28.56
2	Inflation Factor	4.61%	4.61%	4.61%
3	A&G Expenses for nth year	**27.31**	**28.56**	**29.88**
4	Add: Licence Fee and Tariff determination Fee	0.50	0.50	0.50
5	Add: Audit Fee	0.17	0.17	0.17
6	Total A&G Expenses	**27.97**	**29.23**	**30.55**
	SLDC			
7	A&G Expenses for previous year	0.97	1.01	1.06
8	Inflation Factor	4.61%	4.61%	4.61%
9	A&G Expenses for nth year	**1.01**	**1.06**	**1.11**

Commission's Analysis:

The relevant regulation to determine the Employee and A&G expenses is reproduced as under:

"(ii) EMPn+ A&Gn= (EMPn-1 + A&Gn-1)*(INDEX n/INDEX n-1)

INDEXn - Inflation Factor to be used for indexing the Employee Cost and Administrative andGeneral Costs for nth year. This will be a combination of the Consumer Price Index (CPI) and theWholesale Price Index (WPI) of nth year and shall be calculated as under:-

*INDEXn = 0.50*CPIn + 0.50*WPIn*

'WPIn' means the average rate (on monthly basis) of Wholesale Price Index (all commodities) overthe year for the nth year.

'CPIn' means the average rate (on monthly basis) of Consumer Price Index (Industrial workers)

over the year for the nth year.

***… Note 7:** Any expenditure on account of license fee, initial or renewal, fee for determination of tariff*

and audit fee shall be allowed on actual basis, over and above the A&G expenses approved by the

Commission.”

Terminal Benefits

4.6.10 PSTCL’s share of @11.36% of terminal benefits of employee of erstwhile PSEB cannot be ascertained for Transmission Business as the Audited Annual Accounts of FY 2019-20 for PSTCL are not available at this stage.

4.6.11 PSTCL has considered the Terminal benefits for employees of erstwhile PSEB as given in the table below. The terminal liabilities of NPS for new employees recruited by PSTCL is considered as Rs. 5.02 Crore, Rs.5.25 Crore and Rs.5.49 Crore for the 2^{nd}MYT Control Period. PSTCL has submitted its claim of terminal benefits the 2^{nd}MYT Control period as given in Format T5. The relevant extract of the Format T5 is reproduced as under:

Table 105: Terminal Benefits submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2018-19	FY 2020-21	FY 2021-22	FY 2022-23
I	**II**	**III**	**IV**	**V**	**VI**
1.	Share of Earned Leave Encashment	21.09	322.09	328.38	335.30
2.	Share to Pension, Gratuity and Medical	265.95			
3.	Any Other Item (specify)	-			
4.	Miscellaneous - PF inspection fees, Solatium, Momento etc.	0.38			
5.	Provision for Gratuity& leave encashment for employees recruited by PSTCL	4.07			
6.	NPS, CPF, PF, LWF	4.58	5.02	5.25	5.49
7.	**Sub Total**	**296.07**	**327.11**	**333.63**	**340.79**

4.6.12 PSTCL has claimed the Terminal benefits of Rs. 322.09 Crore, Rs.328.38 Crore and Rs.335.30 Crore for the 2^{nd}MYT Control Period without separating the provision for Gratuity and leave encashment for employees recruited by PSTCL. The Commission has calculated the same provision using the actuals of FY 2018-19 as explained in Para 3.6.9 of APR of FY 2019-20 in Chapter 3 of this order and is as under:

Table 106: Calculation of provision for Gratuity and leave encashment for employees recruited by PSTCL for 2nd MYT Control Period

(Rs. Crore)

Sr. No	Particulars	FY 2018-19	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V	VI
1.	NPS, CPF, PF, LWF	4.58	5.02	5.25	5.49
2.	Provision for Gratuity & leave encashment for employees recruited by PSTCL	4.07	4.46	4.67	4.88

Thus, the Commission has allowed the Terminal Benefits as under:

Table 107: Terminal Benefits allowed by the Commission for the 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY2020-21	FY2021-22	FY2022-23
I	II	III	IV	V
1.	Terminal benefits for employees of erstwhile PSEB	**327.11**	**333.63**	**340.79**
2.	Less: Provision for Gratuity & leave encashment for employees recruited by PSTCL	4.46	4.67	4.88
3.	**Terminal Benefits**	322.65	328.96	335.91

Other Employee Cost

4.6.13 The Other employee cost has been considered as per the audited accounts of FY 2018-19 i.e. Rs.176.53 Crore for PSTCL (Rs.170.41 Crore for Transmission Business and Rs.6.12 Crore for SLDC Business) for determining the base line value for 2ndMYT Control Period. The inflation factor used for indexing the employee and A&G expenses is considered as explained in Para 2.6 of True-Up of FY 2018-19.

The inflation factor is calculated as **4.86%.**

4.6.14 The Normative Employee Costs for Transmission and SLDC Business is calculated as under:

Table 108: Employee Expenses of PSTCL as approved by the Commission for Transmission and SLDC Business for 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	**II**	**III**	**IV**	**V**
Transmission Business				
1.	Other Employee Cost of previous year	178.70	187.39	196.51
2.	Escalation Factor	4.86%	4.86%	4.86%
3.	**Other Employee Cost**	187.39	196.51	206.07
4.	**Terminal Benefits**	**322.65**	**328.96**	**335.91**
5.	**Total Employee Cost**	**510.04**	**525.47**	**541.98**
SLDC Business				
1.	Other Employee Cost of previous year	6.42	6.73	7.06
2.	Escalation Factor	4.86%	4.86%	4.86%
3.	**Other Employee Cost**	**6.73**	**7.06**	**7.40**
4.	**Terminal Benefits**	**-**	**-**	**-**
5.	**Total Employee Cost**	**6.73**	**7.06**	**7.40**

4.6.15 Thus, the Total Employee Expenses approved by the Commission is as under:

Table 109: Employee Expenses of PSTCL as approved by the Commission for 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
1.	**Other Employee Cost**	**194.12**	**203.57**	**213.47**
2.	**Terminal Benefits**	**322.65**	**328.96**	**335.91**
3.	**Total Employee Cost**	**516.77**	**532.53**	**549.38**

Administrative and General (A&G) Expenses

4.6.16 The Inflation factor is same as considered for calculating Normative Employee Expenses i.e. 4.86%. The A&G expenses for Transmission and SLDC Business approved by the Commission is as under:

Table 110: A&G Expenses approved by the Commission for the 2nd MYT Control Period for Transmission and SLDC Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
Transmission Business				
1.	A&G Expenses (n-1)	25.46	26.70	28.00
2.	Inflation Factor	4.86%	4.86%	4.86%
3.	**A&G Expenses**	**26.70**	**28.00**	**29.36**
4.	Audit fees	0.17	0.17	0.17
5.	License fees	0.50	0.50	0.50
6.	**Total A&G Expenses**	**27.37**	**28.67**	**30.03**
SLDC Business				
1.	A&G Expenses (n-1)	0.98	1.02	1.07
2.	Inflation Factor	4.86%	4.86%	4.86%
3.	**A&G Expenses**	**1.02**	**1.07**	**1.12**

The A&G Expenses for the 2nd MYT Control Period are as under:

Table 111: A&G Expenses approved by the Commission for the 2nd MYT Control Period for PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	A&G Expenses	**27.72**	**29.07**	**30.48**
2.	Audit fees	0.17	0.17	0.17
3.	License fees	0.50	0.50	0.50
4.	**Total A&G Expenses**	**28.39**	**29.74**	**31.15**

Repair & Maintenance (R&M) Expenses

PSTCL's Submission:

4.6.17 PSTCL has computed R&M Expenses as per PSERC MYT Regulations, 2019. The k-factor has been computed based on actual R&M Expenses of FY 2018-19 as Rs.33.10 Crore for Transmission Business and Rs. 0.43 Crore for SLDC as shown in the following Table:

Table 112: k-factor from FY 2020-21 to FY 2022-23

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC
I	**II**	**III**	**IV**
1.	Opening GFA for FY 2018-19	9444.25	18.57
2.	Closing GFA for FY 2018-19	9778.75	17.51
3.	R&M Expenses	33.10	0.43
4.	k-factor	0.34%	2.40%

4.6.18 After considering the k-factor determined above and projected capitalisation during Control period, PSTCL has submitted the R&M Expenses for the Control period as under:

Table 113: R&M Expenses from FY 2020-21 to FY 2022-23

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	**II**	**III**	**IV**	**V**
	Transmission Business			
1.	Opening GFA	10246.93	10558.66	10747.42
2.	Addition of GFA	311.74	188.76	1356.31
3.	Closing GFA	10558.66	10747.42	12103.73
4.	k-factor	1.76%	1.76%	1.76%
5.	Inflation Factor	0.34%	0.34%	0.34%
6.	**R&M Expenses**	**36.45**	**37.33**	**40.04**
	SLDC			
7.	Opening GFA	17.51	25.61	27.43
8.	Addition of GFA	8.10	1.82	51.03
9.	Closing GFA	25.61	27.43	78.46
10.	k-factor	1.76%	1.76%	1.76%
11.	Inflation Factor	2.40%	2.40%	2.40%
12.	**R&M Expenses**	**0.53**	**0.65**	**1.30**

Commission's Analysis:

4.6.19 As per Regulation 26.1 of PSERC MYT Regulations 2019, the R&M expenses are to be determined as under:

" (i) R&Mn= K*GFA*WPIn/WPIn-1

Where,

'K' is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) for the nth year. The value of 'K' will be specified by the Commission in the MYT order.

***'GFA'** is the average value of the gross fixed assets of the nth year.*

***WPIn** means the average rate (on monthly basis) of Wholesale Price Index (all commodities)* *over the year for the nth year."*

4.6.20 'k' has been determined using the actual R&M expenses from the available latest audited accounts of FY 2018-19. The opening GFA is considered as per the Closing GFA approved during True-Up of FY 2017-18 and the Net addition of GFA is considered as approved in the True-up of FY 2018-19 in this Order. The "k" factor for the 2nd MYT Control Period is calculated as under:

Table 114: Calculation of k factor for 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	Transmission	SLDC
I	II	III	IV
1.	Opening GFA (as on 01.04.2017)	9,444.26	18.57
2.	Closing GFA (as on 31.03.2018)	9,777.77	18.38
3.	Average GFA	9,611.02	18.48
4.	Actual R&M Expenses for FY 2018-19	33.10	0.43
5.	**'K' = R&M Expenses/Average GFA**	**0.344%**	**2.327%**

4.6.21 The K factor is considered as allowed during the True-up of FY 2018-19 in this Order. However, this shall be revisited during the True-Up of respective years.

4.6.22 After considering the k-factor determined above and projected capitalisation during the Control period including the Capitalization due to PSDF Schemes, Commission has calculated the R&M Expenses for the 2nd MYT Control period as under:

Table 115: R&M Expenses approved by the Commission for Transmission and SLDC Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
	Transmission Business			
1	Opening GFA	10,153.75	10,313.16	10,485.67
2	Addition of GFA	159.41	172.51	908.21
3	Closing GFA	10,313.16	10,485.67	11,393.88
4	Average GFA	10,233.45	10,399.41	10,939.77
5	k-factor	0.344%	0.344%	0.344%
6	Inflation Factor*	$(1.0428)^2$	$(1.0428)^3$	$(1.0428)^4$
7	**R&M Expenses**	**38.33**	**40.61**	**44.55**
	SLDC			
1	Opening GFA	18.38	26.25	28.18
2	Addition of GFA	7.87	1.93	54.30
3	Closing GFA	26.25	28.18	82.48
4	Average GFA	22.32	27.22	55.33
5	k-factor	2.327%	2.327%	2.327%
6	Inflation Factor*	$(1.0428)^2$	$(1.0428)^3$	$(1.0428)^4$
7	**R&M Expenses**	**0.56**	**0.72**	**1.52**

** - Inflation factor is assumed to be the same for every year and hence multiplies twice for FY 2020-21, thrice for FY 2021-22 and four times for FY 2022-23*

4.6.23 **Thus, the Commission approves O&M expenses for the 2nd MYT Control Period as under:**

Table 116: O&M Expenses for Transmission Business of 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Employee Expenses	510.04	525.47	541.98
2.	A&G Expenses	27.37	28.67	30.03
3.	R&M Expenses	38.33	40.61	44.55
4.	**O&M Expenses**	**575.74**	**594.75**	**616.56**

Table 117: O&M Expenses for SLDC Business of 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Employee Expenses	6.73	7.06	7.40
2.	A&G Expenses	1.02	1.07	1.12
3.	R&M Expenses	0.56	0.72	1.52
4.	**O&M Expenses**	**8.31**	**8.85**	**10.04**

Table 118: O&M Expenses for PSTCL of 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Employee Expenses	516.77	532.53	549.38
2.	A&G Expenses	28.39	29.74	31.15
3.	R&M Expenses	38.89	41.33	46.07
4.	**O&M Expenses**	**584.05**	**603.60**	**626.60**

4.7 Depreciation

PSTCL's Submission:

PSTCL has computed the depreciation in accordance with the Regulation 21 of the PSERC MYT Regulations 2019. PSTCL has considered closing GFA of FY 2019-20 as opening GFA for FY 2020-21 and addition of GFA equal to projected capitalisation during each year of Control period. In addition to the capitalisation, PSTCL has also considered the capitalisation towards PSDF scheme of Rs. 18.88 Crore for FY 2020-21, Rs. 6.36 Crore for FY 2021-22 and Rs.50.34 Crore for FY 2022-23.

PSTCL has computed the weighted average rate of depreciation as 4.12% for Transmission Business and 3.34% for SLDC based on audited accounts for FY 2018-19. The depreciation has been computed by applying weighted average rate of depreciation on average GFA during the year. Accordingly, PSTCL submits the depreciation for the Control Period asunder:

Table 119: Depreciation for FY 2020-21 to FY 2022-23 as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	**II**	**III**	**IV**	**V**
	Transmission Business			
1.	Opening GFA	7,324.87	7,636.61	7,825.36
2.	Addition of GFA	311.74	188.76	1,356.31
3.	Closing GFA	7,636.61	7,825.36	9,181.67
4.	Wt. Avg. Rate of Depreciation (%)	4.12%	4.12%	4.12%
5.	**Depreciation**	**308.28**	**318.59**	**350.43**
	SLDC			
6.	Opening GFA	12.76	20.86	22.68
7.	Addition of GFA	8.10	1.82	51.03
8.	Closing GFA	20.86	22.68	73.71
9.	Wt. Avg. Rate of Depreciation (%)	3.34%	3.34%	3.34%
10.	**Depreciation**	**0.56**	**0.73**	**1.61**

Commission's Analysis:

4.7.1 Regulation 21 of the PSERC MYT Regulations, 2019 specifies as under:

"21.1. The value base for the purpose of depreciation shall be the capital cost of the assets admitted by the Commission:

Provided that the depreciation shall be allowed after reducing the approved original cost of the retired or replaced or decapitalized assets:

Provided that the land, other than the land held under lease and land for reservoir in case of hydro generating station, shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the assets:

Provided further that Government. grants and consumer contribution shall also be recognized as defined under Indian Accounting Standard 20 (IND AS 20) notified by the Ministry of Corporate Affairs.

21.2. The residual/salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of historical capital cost of the asset:

Provided that I.T. Equipment and Software shall be depreciated 100% with zero salvage value.

21.3. The Cost of the asset shall include additional capitalization.

21.4. The Generating Company, Transmission and Distribution Licensee shall provide the list of assets added during each Year of the Control Period and the list of assets completing 90% of depreciation in the Year along with Petition for Annual Performance Review, true-up and tariff determination for ensuing Year.

21.5. Depreciation for Distribution, generation and transmission assets shall be calculated annually as per straight line method over the useful life of the asset at the *rate of depreciation specified by the Central Electricity Regulatory Commission from time to time:*

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from date of commercial operation/ put in use of the asset shall be spread over the balance useful life of the assets:

Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the asset.

21.6. Depreciation shall be chargeable from the first year of commercial operation/asset is put in use. In case of commercial operation of the asset/put in use of asset for part of the year, depreciation shall be charged on pro rata basis."

4.7.2 The Commission determines the depreciation for the 2nd MYT Control period as per the Regulation 21 stated above. The Opening GFA for the Spillover schemes is considered as per the Closing GFA approved by the Commission in the APR of FY 2019-20 while the opening GFA for new schemes is considered as zero.

The Commission has considered the addition of GFA as approved by the Commission and has not considered the addition of assets due to PSDF Schemes. Based on the actual rate of depreciation of 4.16% for Transmission Business and 3.34% for SLDC Business as determined during True-Up of FY 2018-19 of PSTCL in this Order, the depreciation for Spillover and New Schemes for Transmission and SLDC Business is as under:

Table 120: Depreciation approved by the Commission for the 2nd MYT Control period for Transmission Business

(Rs. Crore)

Particulars		**FY 2020-21**	**FY 2021-22**	**FY 2022-23**
I		**II**	**III**	**IV**
(I)	**Spillover Schemes**			
1.	Opening GFA (excluding land and land rights)	7,148.38	7,274.41	7,382.38
2.	Add: Additions to GFA during the year	144.91	114.32	372.04
3.	Less: Addition of GFA towards PSDF schemes	18.88	6.36	50.34
4.	Closing GFA	7,274.41	7,382.38	7,704.08
5.	Average GFA	7,211.39	7,328.39	7,543.23
6.	**Depreciation @4.16% of average GFA**	**300.00**	**304.86**	**313.80**
(II)	**New Schemes**			
6.	Opening GFA (excluding land and land rights)	-	14.14	72.32
7.	Add: Additions to GFA during the year	14.14	58.18	535.84
8.	Closing GFA	14.14	72.32	608.16
9.	Average GFA	7.07	43.23	340.24
10.	**Depreciation @4.16% of average GFA**	**0.29**	**1.80**	**14.15**
11.	**Total Depreciation**	**300.29**	**306.66**	**327.95**

Table 121: Depreciation approved by the Commission for the 2nd MYT Control period for SLDC Business

(Rs. Crore)

	Particulars	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**
	I	**II**	**III**	**IV**
(I)	**Spillover Schemes**			
1.	Opening GFA (excluding land and land rights)	12.77	20.64	20.64
2.	Add: Additions to GFA during the year	7.87	-	2.42
3.	Closing GFA	20.64	20.64	23.06
4.	Average GFA	16.71	20.64	21.85
5.	**Depreciation @3.34% of average GFA**	**0.56**	**0.69**	**0.73**
(II)	**New Schemes**			
6.	Opening GFA (excluding land and land rights)	-	-	1.93
7.	Add: Additions to GFA during the year	-	1.93	51.88
8.	Closing GFA	-	1.93	53.81
9.	Average GFA	-	0.97	27.87
10.	**Depreciation @3.34% of average GFA**	**-**	**0.03**	**0.93**
11.	**Total Depreciation**	**0.56**	**0.72**	**1.66**

Thus, the depreciation approved for Transmission and SLDC Business is as under:

Table 122: Depreciation approved by the Commission for the 2nd MYT Control period

(Rs. Crore)

	Particulars	**FY 2020-21**	**FY 2021-22**	**FY 2022-23**
	I	**II**	**III**	**IV**
(I)	**Transmission**			
1.	Opening GFA (excluding land and land rights)	7,148.38	7,288.55	7,454.69
2.	Add: Additions to GFA during the year	159.06	172.50	907.88
3.	Less: Addition of GFA towards PSDF schemes	18.88	6.36	50.34
4.	Closing GFA	7,288.56	7,454.69	8,312.23
5.	Average GFA	7,218.47	7,371.62	7,883.46
6.	**Depreciation @4.16% of average GFA**	**300.29**	**306.66**	**327.95**
(II)	**SLDC**			
7.	Opening GFA (excluding land and land rights)	12.77	20.64	22.57
8.	Add: Additions to GFA during the year	7.87	1.93	54.30
9.	Closing GFA	20.64	22.57	76.87
10.	Average GFA	16.71	21.61	49.72
11.	**Depreciation @3.34% of average GFA**	**0.56**	**0.72**	**1.66**
12.	**Total Depreciation**	**300.85**	**307.38**	**329.61**

4.8 Interest and Finance charges

PSTCL's Submission:

4.8.1 For the purpose of projecting the interest and finance charges, PSTCL has considered the closing loan balances for 2019-20 as opening loan balances for FY 2020-21. The outstanding existing loans include loans from REC, LIC, Commercial banks, Loan from PSPCL and GPF Liability. The repayment of the existing loans and interest expenses has been considered as per their repayment schedule. The addition of loan has been considered equivalent to the debt amount as submitted in the Petition. PSTCL has proposed new loans for the proposed investments from Banks/Financial Institution. Three years moratorium period has been considered for the new loan taken for funding of capital expenditure for the 2nd MYT Control Period.

4.8.2 PSTCL has further submitted that the repayment of the loans not considered in past years is estimated to be Rs 23.65 Crore for each year of the Control period.

4.8.3 Accordingly, PSTCL has submitted the interest on loan capital for Control Period as under:

Table 123: Interest and Finance Charges for FY 2020-21 to FY 2022-23 as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	**II**	**III**	**IV**	**V**
	Transmission Business			
1.	Opening Loan balance for the year	3,744.45	3,836.00	3,863.96
2.	Addition of loan during year	493.68	512.04	474.11
3.	Repayment of loan during year	402.13	484.08	483.62
4.	Closing loan balance for year	3,836.00	3,863.96	3,854.45
5.	Interest Charges	386.44	394.42	396.92
6.	Less: Interest charges capitalised	33.89	69.64	66.19
7.	Add: Guarantee Fee	10.46	10.72	9.89
8.	**Interest and Finance Charges**	**363.01**	**335.50**	**340.62**
	SLDC			
9.	Opening Loan balance for the year	9.37	23.62	31.76
10.	Addition of loan during year	16.96	11.45	8.72
11.	Repayment of loan during year	2.71	3.31	3.31
12.	Closing loan balance for year	23.62	31.76	37.17
13.	**Interest Charges**	**1.69**	**2.94**	**3.65**

Commission's Analysis:

4.8.4 The Commission determines the Interest on loan capital for the 2nd MYT Control Period as per Regulation 24 of the PSERC MYT Regulations, 2019. It is reproduced as under:

"24.1. For existing loan capital, interest and finance charges on loan capital shall be computed on the outstanding loans, duly taking into account the actual rate of interest and the schedule of repayment as per the terms and conditions of relevant agreements. The rate of interest shall be the actual rate of interest paid/payable (other than working capital loans) on loans by theLicensee.

24.2. Interest and finance charges on the future loan capital for new investments shall be computed on the loans, based on one (1) year State Bank of India (SBI) MCLR/anyreplacementthereofasnotifiedbyRBIasmaybeapplicableason1st Aprilofth erelevantyear,plusamargindeterminedonthebasisofcurrentactual rate of interest of the capital expenditure loan taken by the Generating Company, Licensee or SLDC and prevailing SBIMCLR.

24.3. The repayment for each year of the tariff period shall be deemed to be *equal to the depreciation allowed for the corresponding year. In case of de-capitalisation of assets, the repayment shall be adjusted by taking into account cumulative depreciation made to the extent of de-capitalisation.*

24.4. The Commission shall allow obligatory taxes on interest, finance charges (including guarantee fee payable to the Government) and any exchange rate difference arising from foreign currency borrowings, as finance cost.

24.5. The interest on excess equity treated as loan shall be serviced at the weighted average interest rate of actual loan taken from the lenders.

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

4.8.5 The opening loan for the Spillover schemes is considered as per the closing loan approved by the Commission in the APR of FY 2019-20 in this Order while the opening loan for new schemes is considered as zero.

4.8.6 As explained in para 4.5.4, the Commission has considered the approved addition of loan as given in Table 95, Table 96, Table 97 and Table 98. As per regulation 24.3 of PSERC MYT Regulation 2019, the repayment of loan is considered equal to depreciation allowed for the corresponding year.

4.8.7 The rate of interest on loan capital for new investments is as per Regulation 24.2 and is calculated as under:

Table 124: Calculation for rate of interest on loan for new investments

Sr. No.	**Particulars**	**Transmission**	**SLDC**
I	**II**	**III**	**IV**
1.	SBI 1 yr MCLR (as on 10th Feb 2020)	7.85%	7.85%
2.	Actual Interest rate (True Up of FY 2018-19)	10.00%	10.33%
3.	SBI 1 yr MCLR (as on 1st Jan 2018)	8.15%	8.15%
4.	Margin (4=2-3)	1.85%	2.18%
5.	**Interest on loan Capital**	**9.70%**	**10.03%**

4.8.8 For the Spillover schemes i.e. for existing loans, the rate of interest on loan capital is as per Regulation 24.1 and is considered as 10.001% for Transmission and 10.33% for SLDC as approved during the True-up of FY 2018-19 in this Order.

4.8.9 The Commission determines Interest on long term loans for Transmission Business and SLDC Business as under:

Table 125: Interest on loan for Spillover schemes of Transmission Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Opening balance of loan	3,529.37	3,475.37	3,303.02
2.	Add: Receipt of loan during the year	246.00	132.51	95.74
3.	Less: Repayment of loan during the year	300.00	304.86	313.80
4.	Closing balance of loan	3,475.37	3,303.02	3,084.96
5.	Average Loan	3,502.37	3,389.20	3,194.00
6.	**Interest Charges @ 10.001%**	**350.28**	**338.97**	**319.44**

Table 126: Interest on loan for New schemes of Transmission Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Opening balance of loan	-	13.85	70.23
2.	Add: Receipt of loan during the year	14.14	58.18	535.84
3.	Less: Repayment of loan during the year	0.29	1.80	14.15
4.	Closing balance of loan	13.85	70.23	591.92
5.	Average Loan	6.93	42.04	331.07
6.	**Interest Charges @ 9.70%**	**0.67**	**4.08**	**32.12**

Table 127: Interest on loan for Spillover schemes of SLDC Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Opening balance of loan	13.98	15.61	15.13
2.	Add: Receipt of loan during the year	2.19	0.21	0.23
3.	Less: Repayment of loan during the year	0.56	0.69	0.73
4.	Closing balance of loan	15.61	15.13	14.63
5.	Average Loan	14.80	15.37	14.88
6.	**Interest Charges @ 10.33%**	**1.53**	**1.59**	**1.54**

Table 128: Interest on loan for New schemes of SLDC Business

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Opening balance of loan	-	-	1.90
2.	Add: Receipt of loan during the year	-	1.93	51.88
3.	Less: Repayment of loan during the year	-	0.03	0.93
4.	Closing balance of loan	-	1.90	52.85
5.	Average Loan	-	0.95	27.37
6.	**Interest Charges @ 10.03%**	**-**	**0.09**	**2.75**

Interest on GPF Fund

4.8.10 Interest of Rs.4.39 Crore on average amount of GPF Fund of Rs.54.89Crore for FY 2020-21, Rs.2.63 Crore on average amount of GPF of Rs.32.94 Crore for FY 2021-22 and Rs.0.88 Crore for FY 2022-23 on average amount Rs.10.99 Crore has been claimed for Transmission Business.

The Interest on GPF being statutory payments are allowed for the 2nd MYT Control Period as claimed by the PSTCL.

Finance and Guarantee charges

4.8.11 PSTCL has claimed finance charges and guarantee fee of Rs.10.46 Crore for FY 2020-21, Rs.10.72 Crore for FY 2021-22 and Rs.9.89 Crore for FY 2022-23 on loan requirement of Rs.493.68 Crore, Rs.512.04 Crore and Rs.474.11 Crore respectively. Accordingly, **the Commission determines and approves proportionate Finance and Guarantee charges as Rs.5.51 Crore for the loan requirement of Rs.260.14 Crore for FY 2020-21, Rs.4.04 Crore for the loan requirement of Rs.190.68 Crore for FY 2021-22 and Rs.13.38 Crore for the loan requirement of Rs.631.58 Crore for FY 2022-23 for the Transmission Business.**

Capitalization of Interest Charges

4.8.12 Capitalization of interest and finance charges of Rs. 33.89 Crore for FY 2020-21, Rs.69.64 Crore for FY 2021-22 and Rs.66.19 Crore for FY 2022-23 is claimed by PSTCL. The Commission has considered the Interest charges @10.001% on the Opening Capital Work in Progress of each year and the IDC for Spillover schemes during the respective year. The Capitalization of interest and finance charges is calculated as under:

Table 129: Calculation of Capitalization of Interest Charges for 2nd MYT Control Period

(Rs. Crore)

Sr. No	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Interest on Opening Capital Work in Progress for Spillover schemes (@10.001%)	168.56x10.001 = 16.86	288.52x10.001 =28.86	313.07x10.001 =31.31
2.	IDC on Capital Expenditure during the year	11.41	11.92	8.50
3.	**Capitalization of Interest charges**	**28.27**	**40.77**	**39.81**

4.8.13 Accordingly, the Commission determines Interest and Finance Charges for Transmission Business and SLDC Business as under:

Table 130: Interest and Finance charges approved by the Commission for Transmission Business

(Rs. Crore)

Sr. No	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Interest charges for Spillover schemes of Transmission Business	350.28	338.97	319.44
2.	Interest charges for New schemes of Transmission Business	0.67	4.08	32.12
3.	Interest on GP Fund	4.39	2.63	0.88
4.	Add Finance/Guarantee charges	5.51	4.04	13.38
5.	Total Interest charges	360.85	349.72	365.82
6.	Less: Interest capitalized	28.27	40.77	39.81
7.	**Net Interest charges**	**332.58**	**308.95**	**326.01**

Table 131: Interest and Finance charges approved by the Commission for SLDC Business

(Rs. Crore)

Sr. No	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	**Interest charges**	**1.53**	**1.68**	**4.29**

4.9 Interest on Working Capital

PSTCL's Submission:

4.9.1 PSTCL has computed Interest on Working Capital (IoWC) as per Regulation 51.1 of PSERC MYT Regulation 2019. PSTCL has considered the rate of interest as 10.76% based on actual interest on working capital for H1 of FY 2019-20. PSTCL has submitted the IoWC for the Control period as under:

Table 132: Interest on Working Capital for FY 2020-21 to FY 2022-23 as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
	Transmission Business			
1.	Receivables for two months	246.61	253.96	270.85
2.	Maintenance spares @15% of O&M	90.44	93.39	96.80
3.	O&M Expenses for one month	50.24	51.88	53.78
4.	Total Working Capital	**387.29**	**399.23**	**421.43**
5.	Rate of Interest (%)	10.76%	10.76%	10.76%
6.	Interest on Working Capital	**41.67**	**42.95**	**45.34**
	SLDC			
7.	Receivables for two months	3.44	3.76	4.22
8.	Maintenance spares @15% of O&M	1.33	1.41	1.56
9.	O&M Expenses for one month	0.74	0.78	0.87
10.	Total Working Capital	**5.51**	**5.95**	**6.65**
11.	Rate of Interest (%)	10.76%	10.76%	10.76%
12.	Interest on Working Capital	**0.59**	**0.64**	**0.72**

Commission's Analysis:

4.9.2 The Commission has computed the interest on working capital as per Regulation 51 of the PSERC MYT Regulations, 2019 specifies as under:

> *"51.1. Components of Working Capital*
>
> *The Working Capital shall cover the following:*
>
> *(a) O&M Expenses for 1month;*
>
> *(b) Maintenance spares @ 15% of the O&M expenses;*
>
> *(c) Receivables equivalent to two(2) months of fixed cost calculated on normative target availability.*
>
> *51.2. Rate of Interest*
>
> *The rate of interest on working capital shall be as per Regulation 25.1."*

4.9.3 Considering the rate of interest as approved in the True-Up of FY 2018-19 i.e. **9.96% for Transmission Business and 10.33% for SLDC Business, the Commission determines and approves the Interest on working capital as under:**

Table 133: Interest on Working Capital approved by the Commission for the 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
	Transmission Business			
1.	Receivables for two months	221.57	221.94	232.22
2.	Maintenance spares @15% of O&M	86.36	89.21	92.48
3.	O&M Expenses for one month	47.98	49.56	51.38
4.	Total Working Capital	355.91	360.71	376.08
5.	Rate of Interest (%)	9.96%	9.96%	9.96%
6.	**Interest on Working Capital**	**35.44**	**35.92**	**37.45**
	SLDC			
7.	Receivables for two months	2.82	2.96	3.77
8.	Maintenance spares @15% of O&M	1.25	1.33	1.51
9.	O&M Expenses for one month	0.69	0.74	0.84
10.	Total Working Capital	4.76	5.03	6.12
11.	Rate of Interest (%)	10.33%	10.33%	10.33%
12	**Interest on Working Capital**	**0.49**	**0.52**	**0.63**

4.10 Return on Equity (RoE)

PSTCL's Submission:

4.10.1 PSTCL has considered the opening equity for FY 2020-21 equal to closing equity considered in APR for FY 2019-20. PSTCL has computed Return on Equity for the Control Period in view of Regulation 20 of PSERC MYT Regulations 2019 and is as given in the following table:

Table 134: Return on Equity for FY 2020-21 to FY 2022-23 as submitted by PSTCL

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Opening Equity for the year	887.35	1,106.19	1,330.54
2.	Addition of Equity during the year	218.85	224.35	206.93
3.	Closing Equity for the year	1,106.19	1,330.54	1,537.47
4.	Rate of Return on Equity (%)	15.50%	15.50%	15.50%
5.	Return on Equity	**154.50**	**188.85**	**222.27**

Commission's Analysis:

4.10.2 The Commission determines the Return on Equity for the Control Period in accordance with Regulation 20 of PSERC MYT Regulations, 2019 which is reproduced as under:

"20. Return on equity

Return on equity shall be computed at the base rate of 15.5% for thermal generating stations, Transmission Licensee, SLDC and run of the river hydro generating stations and at the base rate of 16.5% for the storage type hydro generating stations and run of river generating stations with pondage and 16% for Distribution Licensee on the paid up equity capital determined in accordance with Regulation 19:

Provided that Equity invested in foreign currency shall be converted to rupee currency based on the exchange rate prevailing on the date(s) it is subscribed:

Provided further that assets funded by consumer contributions, capital subsidies/Government. grants shall not form part of the capital base for the purpose of calculation of Return on Equity."

4.10.3 The Commission has considered the opening of equity for FY 2020-21 as the approved closing of equity from the APR of FY 2019-20. As explained in para 4.5.4, no addition of equity is considered. The Commission determines Return on Equity @15.50% on the average equity for the year and is calculated as under:

Table 135: Return on Equity approved by the Commission

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Opening Equity	702.80	702.80	702.80
2.	Add: Addition to equity during the year	-	-	-
3.	Closing Equity	702.80	702.80	702.80
4.	Average Equity	702.80	702.80	702.80
5.	Rate of RoE	15.50%	15.50%	15.50%
6.	**Return on Equity**	**108.93**	**108.93**	**108.93**

The Commission, thus, approves RoE of Rs.108.93 Crore for each year of the 2nd MYT Control Period.

4.11 Unified Load Dispatch & Communication (ULDC) Charges

PSTCL's Submission:

4.11.1 PSTCL has submitted that actual ULDC Charges for FY 2018-19 as per audited accounts are Rs. 7.68 Crore, however the same are Rs. 10.73 Crore for FY 2017-18. It is noted that ULDC charges are fluctuating each year. Hence, for the purpose of projection of ULDC Charges for Control period, PSTCL has considered the average of ULDC Charges actually incurred in past period from FY 2014-15 to FY 2018-19 and are asunder:

Table 136: ULDC Charges of PSTCL for FY 2014-15 to FY 2018-19

(Rs. Crore)

Sr. No.	Particulars	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	Average (FY 2014-15 to FY 2018-19)
I	II	III	IV	V	VI	VII	VIII
1.	ULDC Charges	8.25	11.76	9.92	10.74	7.68	9.67

Accordingly, PSTCL has claimed Rs.9.67 Crore each for the 2nd MYT Control Period towards ULDC charges.

Commission's Analysis:

4.11.2 **Since ULDC Charges are decided by CERC from time to time, the Commission finds it appropriate to allow ULDC charges based on Audited Annual Accounts of FY 2018-19 for time being. Thus, the Commission allows ULDC Charges of Rs.7.68 Crore for each year of the 2nd MYT Control Period. However, it will be revisited during the True-up of respective years based on the Audited Annual Accounts.**

4.12 Non-Tariff Income

PSTCL's Submission:

4.12.1 For the purpose of projection for Control Period, PSTCL has considered Non- tariff Income as submitted in True-up for FY 2018-19. Accordingly, PSTCL submits Non-tariff Income of Rs. 17.75 Crore for Transmission Business and Rs.0.76 Crore for SLDC.

Commission's Analysis:

4.12.2 Non-Tariff Income is to be determined as per Regulation 28 of PSERC MYT

Regulations 2019.

The Commission considers the Non-tariff Income as Rs. 23.59 Crore for each year for Transmission Business and Non-Tariff Income of Rs. 1.67 Crore for each year for SLDC Business based on Audited Annual Accounts of FY 2018-19. However, it will be revisited during the True-up of respective years based on the Audited Annual Accounts.

4.13 Income tax

PSTCL's Submission:

4.13.1 PSTCL has submitted that under ideal scenario, the tax payable in any year should be restricted to ROE earned during the year. However, the actual tax paid during the year may get influenced on account of the following:

- Efficiency of operations leading to gains in comparison to normative expenses
- Recovery of additional amounts from consumers on account of recovery of revenue gap of previous years

On account of the above, the overall income tax liability in any year could be higher than tax only on the ROE component allowed during the year. Therefore, PSTCL has requested that the actual income tax liability on such additional revenue allowed during the year should be allowed on actual. PSTCL shall submit such actual tax liability in True-up of respective year and has requested the Commission to allow the same on actual basis.

4.13.2 For projection for Control Period, PSTCL has computed Income tax payable on Return on Equity as net profit of respective year. In line with the provisions of the Regulations, the overall income tax projections are considered assuming a tax rate of 17.47% (MAT Rate) (currently considered only on the ROE component) as shown in the following Table:

Table 137: Income Tax for FY 2020-21 to FY 2022-23

(Rs. Crore)

Sr. No.	Particulars	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V
1.	Income Tax on RoE	26.99	32.99	38.83

Commission's Analysis:

4.13.3 The Commission shall approve the Income Tax for the 2ndMYT Control Period on the basis of actual Income tax paid by PSTCL during the True Up of respective years as per Regulation 23 of PSERC MYT Regulations 2019.

4.14 Carrying Cost on Revenue Gap

4.14.1 True up of FY 2018-19

The Commission vide Order dated 19th April 2018 had approved the Net Revenue Requirement (NRR) of Rs. 1281.99 Crore for FY 2018-19. During Annual Performance Review for FY 2018-19, the Commission had approved Net Revenue Requirement of Rs.1302.86 Crore. Now after truing up exercise for FY 2018-19, the Net ARR has been re-determined as Rs.1286.67Crore which was payable by PSPCL as Transmission Charges of FY 2018-19. The Commission in its Tariff Order for FY 2019-20 has already allowed a Revenue Gap of Rs.20.86 Crore and carrying cost of Rs. 2.12 Crore on the revenue gap. The Commission determines a Surplus of Rs.16.19(1302.86 - 1286.67) Crore in True up of FY 2018-19 between Net Revenue Requirement determined during Annual Performance Review and True-up. Accordingly, the Commission calculates carrying cost on the revenue surplus of Rs.16.19@9.96% (rate of interest of working capital requirement) of FY 2018-19 for six months (i.e.Rs.0.81Crore) and @9.96% (rate of interest of working capital requirement) for six months of FY 2019-20 (i.e.Rs.0.81 Crore) . Thus, the total recoverable carrying cost for FY 2018-19 works out to Rs.1.61 Crore.

4.14.2 Annual Performance Review of FY 2019-20

The Commission vide its Order dated 27th May 2019 had approved the Net Revenue Requirement (NRR) of Rs.1329.60 Crore for FY 2019-20. The Commission after the review re-determined a Net Revenue Requirement of Rs. 1335.60 Crore for FY 2019-20. Thus, the Commission determines a Revenue Gap of Rs. 6.00 (1329.60–1335.60) Crore. Accordingly, the Commission allows carrying cost of Rs. 0.60 Crore on the Revenue Gap of Rs. 6.00 Crore @9.96% of FY 2019-20 for six months (i.e. Rs. 0.30 Crore) and @9.96% for six months of FY 2020-21 (i.e. Rs. 0.30 Crore).

Thus, the total recoverable carrying cost works out to Rs. 1.01 (1.61-0.60) Crore.

4.15 Corpus fund of State Deviation Pool Account

PSTCL had sought approval of Rs. 16.13 Crore for the creation of a Corpus fund for the State Deviation Pool Account, in its Business Plan including Capital Investment Plan for the 2nd MYT control period in petition no. 19 of 2019. However, the Commission under para 3.2.2.4 of its Order dated 03.12.2019 in the said petition has observed as under:

"*Since Deviation Charges are not part of the Capital Investment Plan, they shall be considered as part of the ARR."*

Accordingly, PSTCL vide its memo no. 260 dated 21.01.2020 has submitted as under:

"…….

As the PSTCL filed its ARR petition on 29.11.2019 so it could not be included in it. PSTCL requests the Commission to take appropriate view on the already submitted matter while considering PSTCL's Petition No. 29/2019 and pass necessary order."

In response to the Public Notice issued by PSPCL for inviting suggestions/ objections of the Public on the same, PHD Chamber, National Apex chamber through its Regional Director, Ms. Madhu Pillai has submitted that there is no justification for parking the said amount with PSTCL/SLDC in view the proposed provisions under Regulation 15 (D) of the draft Intra-State Deviation Settlement Regulations, 2019 being framed by the Commission.

The Commission has perused the proposed provision 15 (D) of the said Regulations which reads as under:

"15 (D) ……….Provided that, the shortfall in funds in the State Deviation Pool Account; if any, at the end of the weekly settlement period shall be recovered by levy of additional charge from the State Entities in proportion to Net Deviation Charges Payable by concerned State Entity for the applicable weekly settlement period through supplementary bills. …………."

The Commission observes that in view of the above proposed provision, no provision is required to be made for creation of a Corpus fund for the State Deviation Pool Account in the ARR.

4.16 Aggregate Revenue Requirement (ARR)

The summary of the ARR for Transmission Business, SLDC Business and for overall PSTCL for the 2nd MYT Control Period is in the following tables:

Table 138: Summary of ARR for Transmission Business for the 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	Submitted by PSTCL			Approved by the Commission		
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V	VI	VII	VIII
1.	O&M Expenses	602.93	622.61	645.34	575.74	594.75	616.56
2.	Depreciation	308.28	318.59	350.43	300.29	306.66	327.95
3.	Interest charges	363.01	335.50	340.62	332.58	308.95	326.01
4.	Return on Equity	154.50	188.85	222.27	108.93	108.93	108.93
5.	Interest on Working Capital	41.67	42.95	45.34	35.44	35.92	37.45
6.	Income tax	26.99	32.99	38.83	-	-	-
7.	**Aggregate Revenue Requirement**	**1,497.38**	**1,541.49**	**1,642.83**	**1,352.98**	**1,355.21**	**1,416.90**
8.	*Less*: Non-Tariff Income	17.75	17.75	17.75	23.59	23.59	23.59
9.	**Net Aggregate Revenue Requirement**	**1,479.63**	**1,523.74**	**1,625.08**	**1,329.39**	**1,331.62**	**1,393.31**
10.	less: recoverable carrying cost				1.01		
11.	**Aggregate Revenue Requirement**	**1,479.63**	**1,523.74**	**1,625.08**	**1,328.38**	**1,331.62**	**1,393.31**

Table 139: Summary of ARR for SLDC Business for the 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	Submitted by PSTCL			Approved by the Commission		
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V	VI	VII	VIII
1.	O&M Expenses	8.86	9.37	10.42	8.31	8.85	10.04
2.	Depreciation	0.56	0.73	1.61	0.56	0.72	1.66
3.	Interest charges	1.69	2.94	3.65	1.53	1.68	4.29
4.	Interest on Working Capital	0.59	0.64	0.72	0.49	0.52	0.63
5.	ULDC Charges	9.67	9.67	9.67	7.68	7.68	7.68
6.	**Aggregate Revenue Requirement**	**21.37**	**23.35**	**26.07**	**18.57**	**19.45**	**24.30**
7.	*Less*: Non-Tariff Income	0.76	0.76	0.76	1.67	1.67	1.67
8.	**Net Revenue Requirement**	**20.61**	**22.59**	**25.31**	**16.90**	**17.78**	**22.63**

Table 140: Summary of ARR for PSTCL for the 2nd MYT Control Period

(Rs. Crore)

Sr. No.	Particulars	Submitted by PSTCL			Approved by the Commission		
		FY 2020-21	FY 2021-22	FY 2022-23	FY 2020-21	FY 2021-22	FY 2022-23
I	II	III	IV	V	VI	VII	VIII
1.	O&M Expenses	611.79	631.98	655.76	584.05	603.60	626.60
2.	Depreciation	308.84	319.32	352.04	300.85	307.38	329.61
3.	Interest charges	364.70	338.44	344.27	334.11	310.63	330.30
4.	Return on Equity	154.50	188.85	222.27	108.93	108.93	108.93
5.	Interest on Working Capital	42.26	43.59	46.06	35.93	36.44	38.08
6.	ULDC Charges	9.67	9.67	9.67	7.68	7.68	7.68
7.	Income tax	26.99	32.99	38.83	-	-	-
8.	**Aggregate Revenue Requirement**	**1,518.75**	**1,564.84**	**1,668.90**	**1,371.55**	**1,374.66**	**1,441.20**
9.	*Less*: Non-Tariff Income	18.51	18.51	18.51	25.26	25.26	25.26
10.	**Net Aggregate Revenue Requirement**	**1,500.24**	**1,546.33**	**1,650.39**	**1,346.29**	**1,349.40**	**1,415.94**
11.	less: recoverable carrying cost				1.01		
12.	Net Aggregate Revenue Requirement	**1,500.24**	**1,546.33**	**1,650.39**	**1,345.28**	**1,349.40**	**1,415.94**

Chapter 5
Directives

Compliance of Commission's Directives

The Commission has a statutory function under the Electricity Act, 2003 to guide the State Transmission Utility to ensure the overall development of an efficient, coordinated and economical system of Intrastate Transmission lines and substations for smooth flow of electricity to the Load Centers. The Commission issues various directives to PSTCL through its Tariff Order each year to facilitate the transmission licensee/STU to achieve these milestones. The status of compliance of directives issued in the Tariff Order for FY 2019-20 and PSERC comments along with further directives for compliance by PSTCL during FY 2020-21 is summarized as under:

Directive No. 5.1: Boundary metering, Energy Audit and Reduction in Transmission Losses.

PSERC Comments & Directive for FY 2019-20:

PSTCL has neither supplied the roadmap to reduce transmission losses below 2.5% nor the analysis of voltage wise transmission losses with proper installation of ABT meters on all boundary points of different voltage levels. The Commission further observes that there is a huge variation in losses during the same months of the FY 2017-18 and FY 2018-19 and also over the full year month wise, even during the months which have comparable energy inputs. This indicates that there is still no stabilization of data. The Commission also noticed from the letters of PSTCL that Transmission Losses are being computed based on manual readings of energy meters installed at boundary interface points. The possibility of inadvertent error in assessment of transmission losses read manually cannot be ruled out. For determination of the trajectory of transmission losses, the stabilised data of one complete year is required as this will become the basis of projections for the succeeding years. The Commission reiterates its directive to PSTCL to analyse voltage wise transmission losses and give a roadmap to reduce to losses below 2.5% within one month of issue of Tariff Order. The Commission directs PSTCL to take the utmost care to collect and compile the data from all the energy meters to remove any probable errors, so that correct and reliable data is available for calculation of transmission losses.

Reply of PSTCL:

The PSTCL Transmission losses are calculated on the basis of input data of ABT/CEM meters downloaded through CMRI. PSTCL has developed an online portal for uploading of CMRI data and the monthly Transmission losses are being calculated by software to minimize any error in data.

The monthly Transmission losses for FY-2019-2020 up to December 2019 are as detailed below:

Month	PSTCL Transmission losses(%age)
April,2019	2.56
May,2019	1.67
June, 2019	2.88
July, 2019	2.31
August, 2019	2.10
September, 2019	1.70
October,2019	2.13
November,2019	2.35
December,2019	2.38
Total Losses (April,2019-Dec,2019)	**2.22**

The Transmission Losses for the month of January 2020 as reported by PSTCL are 2.45%. It may be noted that system losses depend upon the system loading, are minimum in the month of May & September.

The voltage wise transmission losses of Punjab transmission network will be available after the completion of SAMAST scheme in Punjab for which tenders have already been floated and funds have been tied up.

PSERC Comments & Directive

The Commission notes the action taken towards stabilization of the transmission losses. Transmission Losses from April 2019 to December 2019 ranges from 1.67% in May 2019 to 2.88% in June 2019. The transmission losses for the month of January 2020 are 2.45% which makes the overall transmission losses of 2.253% for 10 months of FY 2019-20. PSPCL is directed to supply the Transmission Losses for the month of February 2020 and March 2020 within one month of the issue of the Tariff Order. The Commission reiterates its directive to submit voltage wise transmission losses with the commissioning of SAMAST scheme and share the quarterly progress on implementation of reactive compensation to stabilize the losses.

Directive No. 5.2: Unmanned Sub-stations:

PSERC Comments & Directive for FY 2019-20:

PSTCL has not provided any timelines for implementation of remote control of the substations from the Remote Control Centre (RCC). The Commission directs PSTCL to complete the implementation of Remote Control of all the five Sub-stations and share the progress within two months of the issue of this Tariff Order.

Reply of PSTCL:

Remote control implementation of all the 5 nos. of substation have been established.

PSERC Comments & Directive

The Commission notes the action taken to commission Unmanned Sub-Station with remote control. The operational, experience with unmanned Sub-Stations including benefits accrued should be shared on a quarterly basis with the Commission.

Directive No. 5.3: Loading Status of PSTCL Transmission lines and Substations:

PSERC Comments & Directive for FY 2019-20:

The Commission notes that both 220kV Ckt 1 & 2 from 220kV Gobindgarh-1 to Rajpura and 220kV line from RTP to Ghulal remained overloaded even at ambient temp of 15° C to 17°C. The generation at GGSSTP depends upon merit order dispatch and cannot be regulated according to loading conditions of the lines. PSTCL is directed to take remedial measures to deload the above mentioned circuits under intimation to the Commission.

Reply of PSTCL:

1. **220kV Jalandhar-Kartarpur line recorded 664A at 38°C Ambient Temperature (118.57% overloaded)**

   For further load growth, augmentation of existing conductor of both circuits i.e. 220kV DC line from 400kV Jalandhar to 220kV Kartarpur with HTLS conductor has already been planned to give relief.

2. **220kV Ludhiana-PGCIL circuit-II recorded 560A at 30°C Ambient Temperature i.e. 100% overloading.**

   Replacement of conductor with HTLS conductor has already been planned to give relief.

3. **132kV Virpal-132kV Mall Mandi, Amritsar Line recorded 420A at 41°C Ambient Temperature (110.52%)**

   Augmentation of 0.2 sq.Inch conductor with HTLS conductor has already been planned to give relief.

All other overloaded lines require no remedial action because the overloading is temporary.

PSERC Comments & Directive

The Commission notes that none of the PSTCL sub-stations remained over-loaded during FY 2019-20 upto 31.12.2019. The Commission notes that deloading of PGCIL-Lalto Kalan Circuit-II, 132kV Verpal-Mall Mandi, Amritsar, 220kV DC from 400kV Jalandhar to 220kV Kartarpur have been planned with HTLS Conductor. The Commission directs PSTCL that the action taken to deload all the overloaded lines should be shared on a quarterly basis with the Commission.

Directive No. 5.4: Maintenance of category wise details of fixed assets:

PSERC Comments & Directive for FY 2019-20:

PSTCL is directed to supply the voltage wise updated information online, every year.

Reply of PSTCL:

Para already stands settled.

PSERC Comments & Directive

As discussed in the meeting with PSTCL management on 28.11.2019, it is once again reiterated that voltage wise Fixed Asset Registers should be completed for assets addition of FY 2019-20 onwards and updating for the previous years may be done after sorting out the old records. The status of the completion of Fixed Asset Registers be shared with the Commission within one month of the issue of Tariff Order and updating of Fixed Asset Registers for the previous years be shared on a quarterly basis with the Commission.

Directive No. 5.5: Reactive Compensation.

PSERC Comments & Directive for FY 2019-20:

PSTCL is directed to share the new reactive compensation study being conducted by CPRI for PSPCL/PSTCL at 220/132 kV level as well as 11/33/66 kV level for the year 2019-20 as per the decision taken in the 37th Technical Coordination Committee (TCC) meeting/40th NRPC meeting. PSTCL may also keep the Commission informed regarding PSDF funding and approval of the project.

Reply of PSTCL:

During the 43rd NRPC meeting held on 29th Oct, 2018, NRPC recommended submission of the latest input data for the fresh reactive compensation study being carried out by M/s CPRI at 220/132 kV level as well as 11/33/66 kV level for the year 2019-20.

The requisite input data for carrying out the study by M/s CPRI has been submitted by the SLDC, PSTCL in the month of March, 2019. The study report is yet to be received.

PSERC Comments & Directive

As discussed during the meeting with PSTCL management on 28.11.2019, the action taken by NRPC in their meeting on 10th December, 2019 may be shared with the Commission. The status of CPRI report on reactive compensation of the transmission system of PSTCL and funding thereof by PSDF should be shared with the Commission within two months of issue of the Tariff Order.

Directive No. 5.6: Preventive maintenance of transmission lines.

PSERC Comments & Directive for FY 2019-20:

During the public hearings, a number of complaints regarding failure of supply were received by the Commission from the large industrial consumers fed from 132/220 kV lines. In a surplus power scenario, failure to provide uninterrupted power supply to large industrial units not only results in loss of industrial production but loss of revenue to the distribution licensee also. PSTCL is directed to start a special drive for upkeep of all transmission lines and particularly those lines supplying power to industrial units in the State. PSTCL is further directed to supply quarterly information regarding detail of trippings/breakdowns on each 132/220/400 kV line along with duration of interruption and reason for the same

Reply of PSTCL:

Details of Tripping, Breakdown of Transmission lines affecting the power supply along with the reasons for the period ending December, 2019 have been supplied vide email dated 27th February, 2020.

The following achievements have been made by P&M on the basis of the directive issued by the Commission as reported by Chief Engineer, P&M, PSTCL, Ludhiana.

- Special maintenance drive like tightening of dead end jumpers, tree trimming & washing of porcelain disc insulator has been carried out.
- Antifog disc. Insulators have been installed at strategic locations to safeguard the tripping in foggy seasons. Off-line cleaning of porcelain disc insulators of 400kV transmission lines evacuating the power from TSPL & NPL as well as of other ISTS lines has been carried out.
- Hot line disc washing has not been done due to its high cost and risks, however hot line maintenance activities like jumper tightening disc insulator replacement and repair of substation yard equipment has been started and the hot line maintenance activities has become regular feature from now onwards.

All these maintenance activities have eliminated the blackout of the generating stations this foggy season, which otherwise was a regular event every year.

PSERC Comments & Directive

The Commission notes the measures being taken for preventive maintenance of transmission lines like replacing insulators at strategic location with anti-fog insulators and offline washing of insulators etc. During discussion on the compliance report submitted by PSTCL in the meeting held on 28th November, 2019, it was pointed out in most of the cases of trippings/breakdowns, the report mentioned “nothing found”. This defies logic. All breakdowns in the transmission lines needs to be investigated and reported to the Commission.

The Commission reiterates its directive to carry out special drives for maintaining all transmission lines to avoid trippings/breakdowns. The quarterly status report of trippings/breakdowns should be shared with the Commission.

Directive No. 5.7: Strengthening of the State Load Despatch Centre (SLDC):

PSERC Comments & Directive for FY 2019-20:

The State Load Despatch Centers (SLDCs) have been established under Section 31 of the Electricity Act, 2003 to perform functions as directed in Section 32 of the Act. The SLDC has a pivotal role to ensure integrated, secure, reliable and efficient operation of the Power

System in the State. With the large scale of integration of RE power, automatisation and real time operation of the grid system in the near future, the SLDC is required to be manned by well trained staff with long term commitment and motivation to work in this field. PSTCL is directed to ensure achievement of the above referred goals by effectively ring fencing the SLDC and ensure placement of adequate and well trained staff in the SLDC. Regular training with inbuilt system of incentives/rewards to the personnel manning the SLDC should be ensured. PSTCL shall submit a complete plan to ensure compliance of the directive within four months from the date of issue of this Tariff Order.

Reply of PSTCL:

HR organization of PSTCL is in the process of preparing agenda for the Review of Manpower Structure of SLDC in association with the office of CE/SLDC. The agenda will be placed before BODs of PSTCL for approval.

PSERC Comments & Directive

The Commission directed PSTCL to ensure that SLDC performs its functions as envisaged in the Act. The issue was discussed in the meeting with PSTCL management on 28.11.2019 wherein the Commission stressed that SLDC should manage the scheduling of conventional generators and drawal schedule of PSPCL as a distribution utility as per the provisions of the State Grid Code and ensure operational ring fencing and settlement of deviation charges as per actual deviations made by various entities. The Commission has also notified the Forecasting, Scheduling and Deviations Settlement Mechanism for Wind and Solar generators. The implementation date of these regulations has been extended to 1.1.2021 to allow SLDC to put it in place the requisite infrastructure and logistics. The Commission will notify Intra-State DSM Regulations shortly. SLDC is directed to ensure that the requisite trained manpower, hardware, software and other logistics are in place to implement these regulations.

New Directives

Directive No. 5.8: Employee Training Need Assessment

PSTCL is directed to prepare a detailed Training Need Assessment (Technical, IT, Soft Skills, Finance etc.) for the employees at various level including the new recruits and submit the same for the approval of the Commission within 9 months from the date of issuance of the order.

Directive No. 5.9: Capital Expenditure of 1st MYT Control Period

PSTCL is directed to submit the details of Capital Expenditure incurred scheme wise in the 1st MYT Control Period by 31.07.2020.

Directive No. 5.10: Capital Expenditure and Capitalisation

PSTCL is directed to submit the quarterly details of Capital Expenditure and Capitalisation with clear break up between Spill Over Schemes and New Schemes approved for the next MYT Period.

Chapter 6
Determination of Transmission Charges and SLDC Charges

6.1 Annual Revenue Requirement

The Commission has determined the ARR for PSTCL for FY 2020-21 as Rs. 1345.28 Crore, comprising of Rs. 1328.38 Crore for Transmission business & Rs. 16.90 Crore for SLDC business.

The Commission vide interim Order dated 20.03.2020 had decided to continue with the existing tariff/charges till the Tariff Order for FY 2020-21 is issued. Now, the Commission decides to implement the new tariff rates with prospective effect i.e. w.e.f. 01stJune, 2020. Accordingly, the ARR for Transmission Business and SLDC Business required to be recovered in the remaining 10 months of the year is as under:

Table 141: ARR for Transmission Business and SLDC Business

(Rs. Crore)

Sr. No.	Particulars	Transmission Business	SLDC Business
I	II	III	IV
1.	ARR approved for FY 2020-21	1328.380	16.900
2.	Less revenue recovered during 2 months (April, 2020 and May, 2020 with transmission tariff as per Tariff Order FY 2019-20)	219.352	3.836
3.	Net ARR recoverable during remaining 10 months (June, 2020 to March, 2021)	1109.028	13.064

As, there is only one Distribution Licensee (PSPCL) in the State of Punjab, all the SLDC charges and transmission charges will be borne by PSPCL duringFY 2020-21.

6.2 Transmission System Capacity

The Commission has determined the Transmission capacity (net) of PSTCL system from the data submitted by PSTCL as 12059.42 MW for FY 2020-21.

6.3 Determination of Transmission Tariff

PSERC MYT Regulations, 2019 specify that transmission tariff will have the following components:

i) SLDC Charges or System Operation Charge

ii) Reactive Energy Charges

iii) Transmission Charges or Network Usage Charges

6.3.1 **SLDC Charges or System Operation Charges:** The Commission has approved the ARR of SLDC business for FY 2020-21 at Rs. 16.90 Crore in Table 139 of this Tariff Order. Further the Commission has determined net ARR of SLDC business recoverable during the ten months (from June 2020 to March 2021) at Rs. 13.064 Crore in Table 141 above. Accordingly, the Commission determines the SLDC Charges or System Operation Charge as under:

Table 142: SLDC Charges or System Operation Charges

(Rs. Crore/Month)

Sr. No.	Particular	Existing Charges as per T.O. for FY 2019-20 continued from 01.04.2020 to 31.05.2020	New charges w.e.f. 01.06.2020 to 31.03.2021
I	II	III	IV
1.	**SLDC Charges or System Operation Charges**	1.918	1.306

6.3.2 **Reactive energy charges**: The reactive energy charges, if any, raised by NRLDC on PSTCL will be recoverable from PSPCL directly by PSTCL.

6.3.3 **Transmission Charges or Network Usage Charges:** The ARR for the Transmission Business of PSTCL has been determined at Rs. 1328.38 Crore for FY 2020-21 as shown in Table 138 of this Tariff Order. Further the Commission has determined net ARR of Transmission business recoverable during the ten months (from June 2020 to March 2021) at Rs. 1109.028 Crore in Table 141 above.

Accordingly, the Commission determines the Transmission Charges as under:

Table 143: Transmission Charges

(Rs. Crore/Month)

Sr. No.	Particular	Existing Charges as per T.O. for FY 2019-20 continued from 01.04.2020 to 31.05.2020	New charges w.e.f. 01.06.2020 to 31.03.2021
I	II	III	IV
1.	**Transmission Charges**	109.676	110.903

6.4 Determination of Open Access Transmission and SLDC Charges

As per the provisions of the Open Access Regulations notified by the Commission, SLDC Operation Charges and Transmission Charges for Open Access customers are determined as under:

6.4.1 On the basis of approved ARR for SLDC business of PSTCL, the SLDC Operation Charges for Open Access customers during FY 2020-21 are determined as under:

Table 144: SLDC Operation Charges for Open Access Customers

Sr. No.	Particulars	Unit	Quantum
I	II	III	IV
1.	Revenue Requirement (ARR) of SLDC business for FY 2020-21 from June 2020 to March 2021	Rs. Crore	13.064
2.	Transmission System Capacity (net)	MW	12059.42
3.	SLDC Operation Charges for Long Term and Medium Term Open Access customers for April 2020 and May 2020 (As per Tariff Order FY 2019-20, continued from 01.04.2020 to 31.05.2020.)	Rs./MW/Month	1550
4.	SLDC Operation Charges for Long Term and Medium Term Open Access customers from June 2020 to March 2021	Rs./MW/Month	1083.30
5.	Composite SLDC operating charges to be paid by Short Term Open access Customers for each transaction as per PSERC Open Access Regulations.	Rs. Per day or part of the day	2000

6.4.2 On the basis of the approved ARR for Transmission Business of PSTCL, the Transmission Charges for Open Access customers for use of the transmission system during FY 2020-21 are determined as under:

Table 145: Open Access Transmission Charges for FY 2020-21

Sr. No.	Particulars	Unit	Quantum
I	II	III	IV
1.	Revenue Requirement (ARR) of Transmission Business for FY 2020-21from June 2020 to March 2021	Rs. Crore	1109.028
2.	Transmission System Capacity (net)	MW	12059.42
3.	Transmission Charges for Long Term and Medium Term Open Access customers for April 2020 and May 2020 (As per Tariff Order FY 2019-20, continued from 01.04.2020 to 31.05.2020).	Rs./MW/Month	91121
4.	Transmission Charges for Long Term and Medium Term Open Access customers from June 2020 to March 2021	Rs./MW/Month	91963.63
5.	Transmission Charges for Short Term Open Access Customers for April 2020 and May 2020 (As per Tariff Order FY 2019-20) continued from 01.04.2020 to 31.05.2020.	Rs./MWh	230.39
6.	Transmission Charges for Short Term Open Access Customers from June 2020 to March 2021 (based on 43981 MkWH of energy calculated from 52777 MkWh of energy input at transmission boundary for sale in the State for FY 2020-21, as approved in Table 11 of Chapter 4 of PSPCL MYT Tariff Order for FY 2020-21)	Rs./MWh	252.16

6.5 Date of Effect

The Commission decides to make the revised Transmission Charges and SLDC Charges determined above, applicable w.e.f. 1st June, 2020 and these shall remain operative till March 31, 2021.

This Order is signed and issued by the Punjab State Electricity Regulatory Commission on this day, the 1st of June, 2020.

Date: 1st June, 2020

Place: CHANDIGARH

Sd/-	Sd/-	Sd/-
(Anjuli Chandra)	**(S.S. Sarna)**	**(Kusumjit Sidhu)**
MEMBER	**MEMBER**	**CHAIRPERSON**

Certified

Sd/-

Secretary
Punjab State Electricity Regulatory Commission,
Chandigarh.

ANNEXURE – I

LIST OF OBJECTORS

Objection No.	Name & Address of Objector
1.	Siel Chemical Complex (Mawana Sugars Ltd), Charatrampur, Village Khadaul/Sardargarh, Post Box No. 52, Rajpura, Dist-Patiala(PB) – 140401
2.	Electric Power Transmission Association, F-1, The Mira Corporate Suites, 1&2 Ishwar Nagar, Mathura Road, Okhla Croissing, New Delhi- 110065
3.	PSEB Engineers Association (Regd.), 45, Ranjit Bagh, Near ModiMandir, Passey Road, Patiala.
4.	Cycle Trade Union (REGD), AIRI Cycles, 110-111, New cycle market, gill road, miller ganj, Ludhiana – 141003
5.	Siel Chemical Complex (Mawana Sugars Ltd), Charatrampur, Village Khadaul/Sardargarh, Post Box No. 52, Rajpura, Dist-Patiala(PB) – 140401
6.	Madhu Pillai, PHD House, National Apex Chamber, Chandigarh
7.	Siel Chemical Complex (Mawana Sugars Ltd), Charatrampur, Village Khadaul/Sardargarh, Post Box No. 52, Rajpura, Dist-Patiala (PB) – 140401
8.	Government of Punjab, Department of Power (Power Reforms Wing)

ANNEXURE – II

OBJECTIONS – PSTCL

Objection No. 1: Siel Chemical Complex (Mawana Sugars Ltd), Charatrampur, Village Khadaul/ Sardargarh, Rajpura, Dist-Patiala (PB) – 140401.

Issue No. 1:

The Commission has approved 15.5% return on equity for 2010-11 purportedly as per PSERC regulations as per FRP approved by GOP increasing cost of assets by their revaluation and merging the Consumer Contributions, subsidies and grants with GOP equity leading to increase in equity share capital of PSTCL from Rs. 328.50 Crore to Rs. 605.88 Crore, as per FRP and ROE has been increased from Rs. 45.99 Crore to Rs. 93.91 Crore i.e. an increase of 204% without any fresh investment or infusion of cash by GOP. A similar case of PSPCL is pending in Hon'ble Supreme Court and the Order of APTEL is under Stay. Request the Commission to record the objection on the issue and the Tariff Orders will be subject to review as per Orders of the Supreme Court.

PSTCL's Reply:

On this issue, PSERC may take a call as and when judgement of the case is received.

Commission's View:

The Order of the Hon'ble Supreme Court shall be implemented on receipt of the same.

Issue No. 2: Transmission Losses

PSTCL in its ARR for 2018-19 (True up), 2019-20 (RE) and projections for MYT control period FY 2020-21 to FY 2022-23 has proposed to take transmission loss of 2.86% as per actuals for FY 2018-19 and 3% for FY 2019-20 to FY 2022-23. It is pointed out that:

a) PSTCL has taken input energy at Punjab periphery for FY 2018-19 as 58824.90 MUs However, PSPCL in its ARR has worked out the energy input at state periphery as 55235.38 MUs. PSPCL has not provided category wise sales figure for FY 2018-19 in Annexure D5 and claimed T&D loss of 14.17%. The data needs to be reconciled and loss figure of either PSPCL or PSTCL are wrong and needs to be authenticated.

b) PSTCL has not achieved the set targets in spite of approved capital investment plan as requested by PSTCL. This means that returns on investment will not be available as per projections in the capital investment and inefficiency of PSTCL will be transferred to consumers.

c) Transmission loss for the month of May 2019 has been worked out is 1.67% for input energy of 5408503Mwh. However, in July 2019 transmission loss is 2.31% when input energy is maximum i.e. 7697685Mwh. There is inconsistency in the figures indicating less loss for more flow in one case and the opposite with the other which needs to be investigated.

d) The data for Transmission loss for 2018-19 indicates that there are some factual errors like very low loss level of 2.09% for Oct 18 for 5076006 MWH, Loss of 4.66% and 3.29% for the month of April 18 and Feb 2019 through quantum of electricity transmitted is almost same.

e) PSTCL has submitted loss level of other states to justify claim of higher loss. However, no such comparison can be made in such a fashion. There may be other states not mentioned by PSTCL which may be having lower loss levels. In any case, there are many factors affecting the loss levels and no parallels can be drawn in such a way.

   We strongly object to the proposal of PSTCL to keep the loss level at 3% for next 4 years and not proposing any trajectory in-spite of the Capital Investment Plan of 247.16 Cr in 2019-20 and 705.26 Cr., 731.48 Cr and 677.30 Cr for the MYT period. PSTCL has no other business than to transmit power and all investment is to optimally design, operate and maintain the 220/132 KV grid system so as to reduce the losses. The Commission is requested to link the investment with improvement in Transmission losses and define the trajectory of loss reduction so that consumers get some relief.

PSTCL's Reply:

a) PSTCL submitted the Energy input, energy output and transmission loss for FY2018-19 and FY 2019-20 (H1). PSTCL has submitted the reconciliation of energy submitted by PSTCL and PSPCL.

b) The capital expenditure is based on actual capital expenditure incurred by PSTCL during FY 2018-19. The difference in actual capital expenditure and approved is always there due to change of priorities and there is no inefficiency of PSTCL for which cost is transferred to consumers.

c) to e)The Transmission losses of PSTCL depend on the utilization of system which is mainly done by PSPCL. PSTCL has developed the 400 KV system in 2012 which was having an ideal capacity to meet future growth resulting into higher transmission losses due to some ideal system at that time. With increase in loading of this system in past years the available system has got fully loaded & as such the transmission losses have come down to the lowest level. Now to meet the projected load of 2023 of Peak demand of 15200 MVA &Stringent N-1 criteria laid by CEA and NRLDC while allowing ATC/TTC Limit, 400 KV system is required to be added which shall rather give rise to the Transmission Losses marginally and as such the losses have been kept to the initial position of 3% which is much better than the average transmission losses of Northern Region which are beyond 3.5% as presented in Capital Investment Plan.

Commission's View:

Refer para 4.3 of this Order

Issue No. 3: Employee Cost

PSTCL has some reservation on value of GFA to be taken for calculation of employee cost and raised some issues with regards to MYT Regulations to work out higher normative employee cost and then justifies its actual employee cost. This needs to be dealt strictly as per MYT Regulations and if PSTCL has some issues with Regulations, it may file a separate plea for amendment in Regulations.

PSTCL's Reply:

PSTCL has suggested the methodology of computation of normative employee cost of each year as per MYT Regulations. PSTCL submitted that the normative Employee expenses to be permitted should be at gross level only, as the expense capitalization depends on capital projects undertaken and staff or employees of PSTCL dedicated to such project execution. There is marginal difference in normative employee cost works out as per the Commission's methodology and methodology proposed by PSTCL. PSTCL requests to approve Normative employee cost based on methodology proposed in present Petition.

View of the Commission:

The Commission has determined the employee cost in line with Regulation 26 of PSERC (amended from time to time) Regulations 2014.

Issue No. 4: Funding of Capital expenditure

PSTCL is funding Capital expenditure with normative 30% equity and 70% funding. PSTCL has stated that it is funding equity through Return on Equity earned during the period. Return on Equity belongs to GOP which has invested equity in PSTCL. Further paid up, issued and subscribed share capital on 31.03.18 and 31.03.19 remains same i.e. Rs. 605.38 Crores. PSTCL has neither approval to invest on equity nor having equity shares been issued to GOP on account of investment.

The profit & loss statement of Annual Financial Statement of PSTCL for FY 2019-20 states that company has a net loss of Rs. 6.89 Crore in FY 2018-19. Balance sheet states that the paid up equity capital of PSTCL for the year 2017-18 and 2018-19 remain the same i.e.605.88 Cr. There are no free reserves & there is no change in General and Capital reserves and the Profit and loss account show reduction for the loss incurred. Thus there is no source of infusing equity. It is evident that the equity is being financed through loans in the ARR only and not in the books of the company and system is being mis-utilised by the licensee to earn about 7% of difference of interest rate of loan (8 to 9%) and ROE rate of 15.5%.

It is also seen that through PSTCL has been granted ROE of Rs.17.60 Cr. For 2018-19 in TO 2019-20 whereas overall there is loss of Rs.6.95 Crore as per Profit & Loss statement. The equity of PSTCL remains the same. Thus ROE has been used partly to meet the expenditure of PSTCL. Cash flow statement of Annual Financial Statement of Annual Financial Statement 2018-19 stated that the cash available with PSTCL on 01.04.2018 was 9.42 Cr and on 31.03.2019 it reduced to Rs.6.09 Cr. Equity invested for capital expenditure for 2018-19 is stated as Rs.73.58 Cr. Thus PSTCL has carried out jugglery of figures in stating that it is redeploying ROE whereas it is simply conversion of loans of capital investment into equity to gain differential of interest and ROE.

PSTCL is being paid ROE of 93.91 Cr which is being retained by it and not being paid to GOP which has invested the equity. It should result in profit of Rs.93.91 Cr in the balance sheet of PSTCL whereas it has incurred a loss of Rs.6.95 Cr indicating that it is over expanding by around 99 Cr. Instead of controlling its expenditure and operating efficiently, it is trying to manipulate the loop holes of the system to earn extra money through ROE which is ultimately going to raise the Tariff for consumers and also the subsidy of GOP. The tariff in Punjab is already among the highest in the country and still higher tariff will force the consumers to consume less and industry will close down resulting in lower revenue and more increase in tariff.

ROE needs to be granted only on the equity actually invested by GoP and not on normative basis.

PSTCL's Reply:

PSTCL has considered the funding of capital expenditure as per normative debt:equity ratio of 70:30. Return on Equity approved for respective year is nothing but profit approved in regulatory books. For funding of capital expenditure, it will utilise Return on Equity approved for previous year and re-invest in transmission business. The consideration of audited accounts for funding of capital expenditure would not be appropriate as actual accounts and regulatory accounts are different. The audited accounts include interest charges towards long term loan as well as short term loans/working capital loans. However, in the ARR, interest on working capital loan is approved on normative basis. Hence, for funding of capital expenditure, the amount of equity is available in terms of accumulated reserves and surplus through Return on equity approved for previous years

View of the Commission:

The Commission has considered only free reserves for determination of Return on equity. Refer Para 2.5.7

Issue No. 5: Other Issues

a) As per Balance Sheet for 2018-19, PSTCL has other Equity (Reserves and Surpluses) of Rs. 2248.36 CR and equity of Rs.605.88 Crore which works out to 3.71 times the equity amount whereas Reserves and surplus are not earning any revenue for PSTCL or the consumers. Therefore, PSTCL should explore liquidation of some portion of equity back to GOP so that the burden of ROE is reduced and Tariffs could be lowered.

b) PSTCL has proposed capital Expenditure of Rs.366.39 Cr for 2019-20 against Approved Capital Investment of 227.28 Cr. In Tariff Order. PSTCL already has Transformation capacity of 37686 MVA at 220 and 132 KV levels on 30.09.2019 against contracted Long Term Generation capacity plus own generating plants last paddy is 13633 MW in 2019 out of which some load directly connected to Power Plant switchyards and private plants connected on 66/33KV was served on the generation voltages as well. In view of huge transformation capacity Investment Plan needs to be reviewed critically for pay back as the assets created will require operation and maintenance and interest pay-out etc. but may not be used to their capacity.

c) The Capital expenditure proposed for MYT period needs to be revised as per CIP approved by PSERC . Similarly the figures of Capitalization also needs to be revised

d) Regulation 19.2 of MYT Regulations 2019 is very clear that Sub Reg (d) is subject to Sub Reg (b) and (c) and paid up capital will include investment from share premium and free reserves for the purpose of equity subject to normative debt equity i.e. only paid up equity will be considered and if it will be 30% or actuals whichever is lower. PSERC is requested to implement the provision in true letter and spirit and do not allow conversion of loan into equity under these Regulations.

e) Licensee has to understand that the exercise of ARR and determination of tariff is not an exercise to recover each and every expenditure from the consumers but only legitimate and justified revenue requirement. PSTCL has to realize that the ultimate tariff payable by consumers cannot be increased infinitely and it has to be competitive with regard to neighbouring states. The Income tax Liability for the year is to be restricted to ROE amount only as Regulations provide Post Tax ROE. This is the situation in CERC Regulations for Generation and Transmission business. For all other incomes, Licensee is to pay the income tax out of such incomes. Further Income Tax is payable on actual basis and not on advance basis in ARR as per 2nd provision below Regulation 23.1. We request that the arguments put forth by PSTCL for income tax on additional incomes other than ROE be rejected out rightly. Further any such claim must be supported by relevant regulations and no such claim be put forward if it is not covered under regulations.

f) Opening balance need to be taken as approved by the Commission after considering disallowance of certain loans in the previous tariff order.

g) Non-Tariff income need to be increased on normative basis.

PSTCL's Reply:

a) PSTCL is considering reserves and surpluses created after 16.04.2010 for ROE purpose.

b) PSTCL has considered CIP as per the approved numbers.

c) PSTCL has considered CIP as per the approved numbers.

d) PSTCL has claimed as per PSERC Regulations, final decision has to be taken by the Commission.

e) In the present Petition, PSTCL submitted the income tax as per the provisions of MYT Regulations, 2019. PSTCL submits that provisions of the regulations limit the income tax to ROE, however, additional income tax may come on account of efficiency gains and allowance of past revenue gaps in such year at the time of True up. PSTCL craves leave to submit such actual tax liability in True-up of respective year and requests the Commission to allow the same on actual basis.

f) Aggrieved by decision of disallowance of loans in previous Orders, PSTCL sought an appeal before Hon'ble APTEL. Hence, in consistency with that approach, PSTCL has considered such loans in opening balance.

g) Non-tariff income is considered based on the actual non-tariff income submitted in the Petition for true-up for FY 2018-19. The same approach is adopted in past Orders of the Commission. PSTCL requests to consider the same income for projection

View of the Commission:

The Commission approves the expenses projected in the ARR in accordance with PSERC Regulations after prudence check.

Objection No 2: Electric Power Transmission Association, F-1, The Mira Corporate Suites, 1&2 Ishwar Nagar,Mathura Road, Okhla Croissing, New Delhi-110065.

Issue No. 1: Transmission Losses

PSTCL has improved performance in terms of Transmission loss reduction from 3.12% in FY 2017-18 & 2.86% in FY 2018-19. Further, PSTCL has forecast loss reduction trajectory over the three years Control Period of 2nd MYT Control period is as shown below:

Particulars	2017-18 (Actuals)	2018-19 (Actuals)	2019-20 (Approved	2019-20 (Proj.)	2020-21 (Proj.)	2021-22 (Proj.)	2022-23 (Proj.)
Transmission Loss %	3.12	2.86	2.5	3	3	3	3

The past period performance of PSTCL indicates that Transmission loss has improved over the years, and in 2018-19, the actual loss achieved for 2.86%. PSTCL should be looking to take this performance forward, and target loss in the range of 2.5% and less levels, rather than sticking to initial projections of 3%.

PSTCL's Reply:

The transmission losses of PSTCL depend on the utilization of system which is mainly done by PSPCL. PSTCL has developed the 400 KV system in 2012 which was having an ideal capacity to meet future growth resulting into higher transmission losses due to some ideal system at that time. With increase in loading of this system in past years the available system has got fully loaded & as such the transmission losses have come down to the lowest level. Now to meet the projected load of 2023 of Peak Demand of 15200 MVA & Stringent N-1 criteria laid by CEA and NRLDC while allowing ATC/TTC Limit, 400 KV system is required to be added which shall rather give rise to the transmission losses marginally and as such the losses have been kept to the initial position of 3% which is much better than the average transmission losses of Northern Region which are beyond 3.5% as presented in Capital Investment Plan.

Commission's View:

Refer Para 4.3 of this Order.

Issue No. 2: Capital Expenditure and Capitalisation:

The below table captures the projected versus actual capex for the past 3 years along with the projected CAPEX for next 3 years (FY 2020-21 to FY 2022-23).

Year	Projected Capex (Rs. Cr.)	Approved Capex (Rs. Cr.)	Actual Capex (Rs. Cr.)
2017-18	381.5	338.29	321.48
2018-19	310.72	258.19	261.74
2019-20	521.52	237.28	369.86
2020-21	729.49		
2021-22	747.83		
2022-23	689.75		

In this petition, PSTCL has submitted its Capital investment Plan of Rs. 2536.93 cr. to be invested in a span of 4 years from FY 2019-20 to FY 2022-23, where a majority of the investment (86%) is to be made in next 3 years (FY 2020-21 to FY 2022-23).

It can be observed that the yearly projected CAPEX for next 3 years is – 70% more than the average actual yearly CAPEX spent from FY 2017-18 to FY 2019-20. Therefore, PSTCL's projections/planned Capex vis-à-vis the actual achievements for the previous period merits a relook.

PSTCL's Reply

Lot of new Transmission System is required to meet the projected demand of 2023 and also to meet the N-1 Stringent criteria the system has been planned based on load flow studies and loading condition of 2019 paddy. As per the required works, each work has qualified the criteria laid and has been approved by the commission in the Capital Investment Plan for the second MYT control period i.e. FY 2020-21 to FY 2022-23. The same CAPEX has been projected in the MYT.

Commission's View:

Refer para 2.4, 3.4 and 4.4 of this Tariff Order.

Issue No. 3: Funding of Capital Expenditure

In this petition, PSTCL has submitted its Equity Plan of Rs. 650.13 cr. requirement in a span of 3 years from FY 2020-21 to FY 2022-23, (Debt-Equity ratio being 70:30), the below table captures the equity requirement projected versus the actual equity infused:

Year	Projected/Approved Equity Reuqirement (Rs. Cr.)	Actual Equity Infused (Rs. Cr.)
2017-18	101.49	96.92
2018-19	77.46	73.58
2019-20	71.18	110.96
2020-21	218.85	
2021-22	224.35	
2022-23	206.93	

In the current MYT petition (FY 2020-21 to FY 2022-23), PSTCL has proposed total capex of Rs. 2,167 cr. out of which equity requirement is of Rs. 650.13 cr. (Debt –Equity ratio being 70:30. This is resulting in annual equity requirement of Rs. 200 cr. which is more than 200% of the current annual equity infusion planned of Rs. 110.96, and casts a doubt on the funds that are to be deployed by PSTCL/State Government.

PSTCL's Reply

PSTCL submits that, in the present Petition, it has considered the funding of capital expenditure as per normative debt:equity ratio of 70:30. PSTCL submits that Return on Equity approved for respective year is nothing but profit approved in regulatory books. For funding of capital expenditure, it will utilise Return on Equity approved for previous year and re-invest in transmission business.

Commission's View:

The Commission has considered only free reserves for determination of Return on equity. Refer Para 2.5.7

Issue No. 4: Need for Coordinated planning and packaging of Schemes:

PSTCL's CAPEX planned for investments in Transmission Line schemes are not made available publicly. Assuming that the details of the transmission schemes/works submitted by PSTCL are comprehensive independent schemes with individual utility and if such transmission elements are awarded as a composite scheme – comprising of complete scope at both the interconnection points including upstream/downstream elements and their associated bays- it would lead to better assessment of the project requirement, its timelines and its utilization once commissioned.

The Central Electricity Regulatory Commission (CERC) in its Advisory dated 14.10.2016 to the Ministry of Power (MoP) has advised that:

"in case of new transmission network, splitting the network into components and award of the project through TBCB complicates the execution of project. Therefore, it is advisable to identify the entire network for development through TBCB, instead of comparatively smaller elements, commissioning of which depends upon commissioning of all upstream/ downstream elements."

It is submitted that PSTCL should submit the end to end Transmission schemes planned to the Commission and the same to be published in PSERC website as well.

Transmission Schemes above INR 50 cr. to be developed through TBCB mode

Given the above concerns in the Capital Investment Plan, the States Equity requirement burden can be eased by encouraging competition in the Transmission Schemes development. Competition will yield efficiency gains and result in improved quality of electricity supply to consumers at competitive rates.

PSERC in the order dated 18.10.2019 on the petition no. 14 of 2019, had decided that:

"Further, in view of the GoP's concurrence and the justification given by PSTCL, the commission also decides to relax the provisions of notification no. PSERC/Secy/132 dated 05.11.2018 to allow PSTCL to undertake construction of 400 KV sub-station at village Dhanansu through open tender instead of TBCB mode as a special case and as a onetime measure."

It is humbly requested that the Commission relook at the detailed PSTCL proposed schemes and ensure that the schemes have been submitted following the spirit and intent of the Threshold Limit Notification no. PSERC/Secy/132 dated 05.11.2018, to develop the schemes above the value of Rs. 50 crore through the competitive bidding route.

PSTCL's Reply

PSTCL CAPEX plan was submitted to PSERC scheme wise in the Capital Investment Plan which was duly published by the Commission and already stand approved after checking and looking into justifications.

The same schemes w.r.t CAPEX has been projected in the MYT without any addition.

Commission's View:

Refer para 2.4, 3.4 and 4.4 of this Tariff Order.

Objection No 3: PSEB Engineers Association (Regd.), 45, Ranjit Bagh, Near Modi Mandir, Passey Road, Patiala.

Issue No. 1: Employee Cost

Employee cost is the largest component of annual Transco ARR as under:

Particulars	2018-19: Actuals	2019-20: Review
Employee Cost (Rs. Crore)	482.73	512.78
Total ARR	1333.57	1362.70

1.1 A comparison of Employee expenses with respect to the CERC norms is carried out as under:

a) As per PSTCL, the total O&M expenditure for 2019-20 is the sum total of three components, employee expenses, R&M and A&G charges.

b) As per CERC norms, the O&M charges as admissible for the tariff period 2019-2024 are specified separately for three categories of assets, substation bays, transmission lines and transformer capacity in MVA. The O&M charges admissible as per CERC norms are worked out as under:

i) Bays:

		(Rs. Lacs per year)
400 KV	41 No. bays @ Rs. 32.15 lacs per year per bay	1318
220 KV	725 No. bays @ Rs. 22.51 lacs per year per bay	16320
132 & 66 KV	876 Nos. bays @ Rs. 1608 lacs per year per bay	14086
	Total of bays	31724

ii) Transmission Lines

400 KV	The circuit km is 1600, double ckt line equivalent to 800 Km of line length, with Rs. 0.881 lac per km per year	705
220 KV	2000 Km, D/C @ 0.377 lac per Km per year	754
	3141 S/C @ 0.252 lac per Km per year	794
132 KV	3136 Km S/C @ 0.252 lac per Km per year	790
	Total	3043

iii) Sub Station capacity:

Out of 36500 MVA substation capacity, 4500 MVA may be taken at 400 KV and 32000 MVA at 220 KV. The annual charges as per norms are:

At 400 KV = 4500 × 0.358 = 1611 Rs. lacs per year

At 200 KV = 32000 × 0.245 = 7840 Rs. lacs per year

Total for substation capacity = 9451 Rs. lacs per year

Summary of O&M charges as per CERC norms:

Bays: 317.24 Crore per year

Lines: 30.43 Crore per year

Substation capacity: 94.51 Crore per year

Total: 442 Crore per year (Approx.)

The O&M charges of PSTCL calculated on the basis of CERC norms are around Rs. 442 Crore per annum for 2019-20 system, out of which Rs 317 Crore is for bays, Rs. 30 Crore are for lines and 94 Crore are for transformer capacity.

By contrast, the O&M figures for 2019-20 for PSTCL as per ARR petition are as under:

Employee Expense	512.78 Crore
R&M and A&G	51.21 Crore
Total O&M expenses	564 Crore (approx.)

It is seen that the O&M expenses as per PSTCL ARR are substantially higher than the amount as per CERC norms.

The employee expenses in PSTCL would appear to be on the higher side and the following aspects need to be examined.

a) Whether manpower for construction works is being charged to O&M.

b) Analysis of technical and non-technical manpower, particularly keeping in view that non-technical manpower could be reduced without affecting the technical working of the grid and transmission system.

c) An analysis of vacant posts with respect to the number of sanctioned posts for different technical and non-technical categories.

PSTCL's Reply:

Employee Cost includes Rs 311.90 Cr on account of terminal benefits (which the commission allows on Pay as you go basis). The O&M charges of PSTCL without Terminal liability is Rs 252.09 Cr which is less than CERC norms.

Commission's View:

The Commission approves the O&M expenses on Normative basis and as per the PSERC MYT Regulations 2014, the terminal liabilities are approved as per actuals paid by the applicant.

Issue No. 2: Employee Strength

Analysis of Employee strength

The employee data is taken from table T-6 which gives the working strength at the beginning of the year and the sanctioned strength. The figures for 2018-19 and 2019-20 in respect of technical manpower is as under:

	Beginning of 2018-19, manpower, actual	Sanctioned strength, 2018-19	Beginning of 2019-20, manpower, actual	Sanctioned strength, 2019-20
Class I	342	443	339	442
Class II	510	1100	556	1100
Class III	1431	2324	1357	2347
Class IV	91	0	72	0

In case of non-technical manpower, the summary for 2018-19 and 2019-20 is as under:

	2018-19	**2019-20**
Working strength Actual	637	479
Sanctioned strength	1267	1255

2.1 PSTCL may give proposals for reducing manpower expenses while ensuring that the transmission system and grid substations are adequately manned by trained technical manpower which is the over-riding requirement for the transmission system.

2.2 In case of construction of new grid substations and lines, the technical manpower required for operation and maintenance must be sanctioned in advance of the commissioning of substation or line and posted in a time frame matching with the commissioning of substation or line.

PSTCL's Reply:
Employee costs are not higher if we exclude the terminal liability and is being approved on normative basis. PSTCL is trying its best to ensure that transmission system is manned by adequate and trained staff.
Commission's View:
The Commission has approved the Employee costs as per the PSERC MYT Regulations and on normative basis. The terminal benefits are approved as per actuals.

Issue No. 3:
The IEGC (CERC) stipulates in section 5.1(H) as under regarding the manpower deployment:

> *"The control rooms of NLDC, RLDC, all SLDCs, power plants and substations of 132 KV and above and any other control centers of all regional entities shall be manned round the clock by qualified and adequately trained persons".*

3.1 For implementing this important provision of IEGC, PSTCL should formulate a comprehensive manpower and training program so that the manpower deployment at grid substations and lines is ensured as per IEGC and further that the existing O&M technical staff must be adequately trained.

PSTCL's Reply:
PSTCL is conducting training program for capacity building of its staffs and executives from time to time.
Commission's View:
The objector may note the response of PSTCL.

Issue No. 4: True up of 2018-19
The details of loan as given in page 27, table 9 are as under:

	Rs. Crore
Opening loan as on 1.4.2018	4015.23
Loan received	165.99
Loan repaid	344.99
Closing balance	3836.22
Interest charged	390.98

The summary of loan servicing done by PSTCL is as under:

i) Loan repaid Rs. 344.99 Crore
ii) Interest paid Rs. 390.98 Crore
iii) Total amount Rs. 735.97 Crore
iv) Loan taken Rs. 165.99 Crore

The overall impact on an outstanding loan of Rs. 4015 cCrore is an outflow of Rs. 736 Crore with an additional loan taken of Rs. 166 Crore.
The normal concept is that loan is taken to execute a project and with the commissioning of the project, the revenue inflows achieved from that project are utilized to repay the loan within the prescribed time frame. PSTCL may give details of utilization of loan and the plan for its repayment including the timeframe.

4.1 The Commission has correctly adopted the principle of disallowing capital expenditure through loans which are not of long-term nature.

PSTCL's Reply:
PSTCL in its Petition has submitted the details of year wise loan taken from Banks/FIs. The

same loan has been taken against the capital expenditure incurred during the year. The repayment of such loan will be made as per repayment schedule. Such repayment is primarily funded through depreciation allowed on such capitalised assets. PSTCL does not agree on the principle of disallowing capital expenditure through loans which are not of long-term nature

Commission's View:

The Commission approves the ARR after prudence check as per applicable PSERC MYT Regulations.

Issue No. 5: Forecast of ARR for MYT period 2020-21 to 2022-23

The proposed transmission loss is stated as 3% whereas in 2018-19, the actual loss as per PSTCL was 2.86%. The proposed loss of 3% is on the higher side and not in order in view of the lower actuals of previous year i.e. 2.86%. With an attainment level of 2.86%, the losses in subsequent years should show a marginally reducing trend.

Vide PSTCL energy exchange statement for 2019-20, H-1 Actual Figures, the loss data as per PSTCL is as under:

Month	Percentage transmission loss
Apr-19	2.56
May-19	1.67
Jun-19	2.88
Jul-19	2.31
Aug-19	2.10
Sep-19	1.70

The transmission loss parameter for subsequent months/ years is required to be less than 2.86 as per the above data also.

PSTCL's Reply:

The transmission losses of PSTCL depend on the utilization of system which is mainly done by PSPCL. PSTCL has developed the 400 KV system in 2012 which was having an ideal capacity to meet future growth. Resulting into higher transmission losses due to some ideal system at that time. With increase in loading of this system in past years the available system has got fully loaded & as such the transmission losses have come down to the lowest level. Now to meet the projected load of 2023 of Peak Demand of 15200 MVA & Stringent N-1 criteria laid by CEA and NRLDC while allowing ATC/TTC Limit, 400 KV system is required to be added which shall rather give rise to the transmission losses marginally and as such the losses have been kept to the initial position of 3% which is much better than the average transmission losses of Northern Region which are beyond 3.5% as presented in Capital Investment Plan.

Commission's View:

Refer Para 4.3 of this Order.

Issue No. 6: Capital expenditure and capitalization vide table 33, page 53, the capitalization, year-wise is shown as under:

	2020-21	2021-22	2022-23
Capitalization, Rs. Crore	292.86	182.40	1305.97

The salient details of assets proposed to be capitalized after the commissioning in that year may be given year-wise for 2020-21, 2021-22 and 2022-23. In particular for 2022-23, the capitalization amount of Rs. 1306 Crore is substantially higher which implies that higher quantum of assets would be commissioned in the year 2022-23 for which the salient details may be supplied by PSTCL.

PSTCL's Reply:

The Capitalisation for Control period is proposed based on Capital Investment Plan Petition submitted before the Commission. As against this, the Commission vide its Order dated December 3, 2019 in Petition No. 19 of 2019 has approved capital expenditure and capitalisation for Control period after due prudence check. The scheme wise details of proposed capitalised works are given in the same Order.

Commission's View:

Refer to Para.4.4 of this Tariff Order. The Commission has restricted the Capital Investment Plan of PSTCL to Rs 400 Crore for each year of the Control period.

Issue No. 7: Interest and finance charges

The table of interest and finance charges for 3 years period is consolidated. The burden of Rs. 1039 Crore interest would be put in the ARR of Transco over the 3-years period and it would be recovered from the consumers through tariff.

PSTCL's Reply:

Interest charges are part of Annual Transmission Charges as per provisions of Tariff Regulations. Any interest charges towards the loan taken for capital works are to be capitalizes during the construction period.

Commission's View:

The Commission approves the Interest & Finance charges on Normative basis and as per the relevant PSERC MYT Regulations.

Issue No. 8: New works – addition, augmentation

The following new works/ proposed works over the 3-years block are summarized as per details contained in the ARR:

a) Page 224, Sr.No.53: Procurement of emergency restoration system (ERS) with two sets of 10 towers each.
This work is justified for restoring any 220 KV line under breakdown due to tower failure etc.

b) Page 226, Sr.No.54: Proposal to install nitrogen filled fire protection system for 31 Nos. 220 KV transformers at a cost of Rs. 6.24 crore.
PSTCL may give the detailed justification.

c) Page 226, Sr. No. 55: Providing additional 500 MVA transformer, 400/220 KV at Mukatsar for Rs. 17 Crore,
PSTCL may clarify the justification since there has not been any addition of generation capacity at 400 KV.

d) Page 226, Sr. No.62 – Providing additional 500 MVA transformer, 400/ 220 KV at Makhu for Rs. 17 Crore
PSTCL may justify.

e) Page 234, Sr.No.128-130: Providing new 400 KV substation at Dhanansu, near Doraha by loop in – loop out of 400 KV Rajpura Nakodar line. Substation to have 2 × 500 MVA transformers of 400/220 KV.
PSTCL may give details of 220 KV lines and substations where this power is proposed to be transmitted.

f) Page 237, Sr.No.242 – Replacement of Disc insulators of PSTCL lines with Polymer insulators, estimated cost Rs. 92 Crore.
PSTCL may give details and justification, whether this work is to be done only for 400 KV lines or whether 220 KV lines also would be included.

g) Providing of new 400 KV substation at GGSSTP Ropar for Rs. 33.75 Crore
PSTCL may indicate the basis on which the 400 KV substation has been proposed, particularly as two out of the six units of GGSSTP Ropar have been retired.

PSTCL's Reply:

The details of new works were submitted before the Commission in Capital Investment Plan Petition No. 19 of 2019. The works have been approved by the Commission after finding these justified in their order dated 03.12.2019. The details of Petition and order of commission is available on PSTCL Website.

Commission's View:

The Commission has already approved the Capital Investment Plan after inviting objections and conducting prudence check.

Issue No. 9: Drawl of Power between PSTCL from PowerGrid system-newlines

Following is summary of new lines of PowerGrid supplying power to Northern region from where the power is further delivered to Punjab.

a) HVDC line from Western region to Northern Region: HVDC Champa Kurukshetra 800kV Bipole 1307 km Hexa Lapwing conductors.
b) 400kV Kurukshetra-Jalandhar ckt 1 267 km Quad Moose
c) 400 kV Kurukshetra-Nakodar Ckt1 234 km Quad Moose
d) 400kV Kurukshetra Malerkotla Double Ckt 139 km twin moose
e) 400kV Malerkotla Amritsar Double Ckt 149 km twin Moose
f) 765Moga Bhiwani single Ckt Quad Bersimis
g) 765 kV Moga Meerut single Ckt Quad Bersimis

PSTCL has proposed new 500MVA transformers at Muktsar, Makhu and at new grid substation Dhanansu (near Doraha)2X500 of 400/220 kV class. The funding/ cost of these transformers may be at PowerGrid cost.

PSTCL's Reply:

The Transformers which are to be installed at PSTCL grid are to be installed by State Transmission utilities only and Power grid does not bear the cost of the same. Similarly, any 400 KV station, if required for intra State Transmission System, is required to be funded by STU irrespective of the fact that the same is built by STU or Power Grid. In case the same is built by Power Grid, the same shall be built on Cost plus basis.

Commission's View:

The Objector may note the response of PSTCL. Also, refer to Para4.4 of this Tariff Order. The Commission has restricted the Capital Investment Plan of PSTCL to Rs 400 Crore for each year of the Control period.

Additional Submission by PSEB Engineers' Association.

Issue No. 1: Re conducting of 220KV Bhakra Jamalpur Line.

As a part of Renovation, modernization and up rating of Bhakra Right Bank powerhouse the MW capacity of units stands uprated to 5X157 MW from the original 5X120 MW. In view of additional capacity to be evacuated, the BBMB had approved proposal for replacement and augmentation of conductor of Bhakra Jamalpur circuits 1 and 2 on the existing towers. Accordingly, the new (augmented) conductor had been procured by BBMB and received at

BBMB store in Jamalpur. However, about 10 years had elapsed but the work of conductor replacement was not taken up by BBMB and the conductor remained unutilized at Jamalpur store.

The 220 kV substation Jamalpur of BBMB supplies power to areas in and around Jamalpur (Ludhiana) and operates as a part of interconnected transmission system of PSTCL, Power Grid and BBMB. The capital cost of re conductoring 220 kV line was shared by Punjab (PSPCL) as the benefit of additional power flow to Jamalpur would be mostly to Punjab areas. On this account it will be in interest of Punjab that the re-conductoring of line is carried out by utilizing the conductor already procured. It is proposed that PSTCL may take up the re-conductoring work after due approval and coordination with BBMB. The additional capital expenditure may be allowed by the Commission. PSTCL may give the proposal including the cost sharing of carrying out transmission work on behalf of BBMB, for approval of the Commission. The Commission may kindly give suitable direction, so that the capital funds for new conductor (for which Punjab had paid its share) can be utilized and benefit of additional power flow availed.

PSTCL's Reply:

The Re Conductoring work of 220 KV Bhakra Jamalpur Line was planned 10 years back and BBMB had taken a conscious decision to carry out the re-conductoring of their own and had procured the conductor 10 years back. The conductor has been kept in open area and the drums had already worn-out. As such, the utilization of this conductor is a tough task and would result into damage of a considerable portion of conductor. BBMB has its own transmission wing and repeated tenders by BBMB have found no contractor to undertake the work because of severe Right-of-Way issues and as such PSTCL can't get into the same and only way out is that PSPCL should press upon BBMB to complete the work at the earliest.

Commission's View:

PSTCL is directed to take up the matter with BBMB to complete the work.

Objection No 4: Cycle Trade Union (REGD).

Issue No. 1:

Our Association strongly opposes and resents any increase in tariff as well as fixed charged tariff for all types of consumers of PSTCL & PSPCL of Punjab because we do not trust your inflated, enhanced, created as well as fabricated shown figures in your petition without the production of Audited-certified balance sheets of the PSTCL & PSPCL for the year 2017-18 and 2018-19 to check in depth truth and irregularities of PSTCL and PSPCL.

PSTCL's Reply:

PSTCL has submitted that observation made by the Cycle Trade Union are of General nature and does not relate to any specific submission made by PSTCL in its MYT Petition.

Commission's View:

PSTCL has submitted the Auditor certified financial statements for FY 2018-19 along with the ARR and the same has been uploaded on their website.

Objection No. 5: Siel Chemical Complex (Mawana Sugars Ltd), Charatrampur, Village Khadaul/ Sardargarh, Rajpura, Dist-Patiala (PB) – 140401

Issue No. 1. Creation of Corpus fund for State Deviation Pool Account

PSTCL In its affidavit dated 20.1.2020 has intimated that the issue of providing Rs.16.13 Cr towards State Deviation Charges Pool Account was raised in Petition No. 19 regarding Business and Capital Investment Plan for 2nd MYT Control period vide memo No. 3265 dated 09.10.2019. While issuing the order in Petition No 19, the Commission provided in the Order dated 3.12.2019 that "Since Deviation Charges are not part of the Capital Investment Plan, they shall be considered as part of the ARR."

It is seen that PSTCL's letter 3265 dated 09.10.2019 is neither available on the web site nor has been provided along with additional submissions of PSTCL bearing letter No. 260 dated 21.1.2020. The details and justification of creation of fund has been provided by PSTCL in the additional submission. We are unable to provide comments merely on demand raised by PSTCL. It is requested that copy of letter No. 3265 dated 09.10.2019 be provided to us and the stake holders for offering comments. Also, due date of submission of comments be extended by at least 10 days.

Commission's View:

Copy of Letter no. 3265 dated 09.10.2019 is available on PSTCL's website. Also refer to Para 4.15 of this Tariff Order.

Objection No. 06 - Madhu Pillai, PHD House, National Apex Chamber, Chandigarh

Issue No. 1. Corpus amount towards deviation charges

PSTCL In its affidavit dated 20.1.2020 has intimated that the issue of providing Rs.16.13 Cr towards State Deviation Charges Pool Account was raised in Petition No. 19 regarding Business and Capital Investment Plan for 2nd MYT Control period vide memo No. 3265 dated 09.10.2019. While issuing the order in Petition No 19, the Commission provided in the Order dated 3.12.2019 that "Since Deviation Charges are not part of the Capital Investment Plan, they shall be considered as pan of the ARR."

It is seen that PSTCLs letter 3265 dated 9.10.2019 is not available on the web site nor has been provided along with the request of PSTCL bearing letter No. 260 dated 21.1.2020 enclosing the additional submissions. No other details have been provided by PSTCL in the additional submission as to under which regulation the amount has been demanded and what will be the rules and procedures to establish, operate and maintain the pool fund.

The IPPs for which the pool account is proposed to be maintained i.e. NPL, TSPL and GVK had commissioned their power plants during 2012-13 onwards. Deviation from schedule is occurring since the commissioning and UI charges must have been claimed from them or paid since then. The submissions do not indicate as to how the payments are being made/ paid till date and why the need for creating pool corpus has arisen now.

PSTCL's Reply:

Copy of PSTCL letter no. 3265 dated 09.10.2019 has been provided and uploaded on PSTCL's website. As per the provisions of State Grid Code, UI/ deviation charges of Intra-State Entities are to be paid/ realized by SLDC through the State Deviation Pool Account. However, in view of non-implementation of Intra-State ABT (Availability Based Tariff)/ Intra-State DSM (Deviation Settlement Mechanism) Regulations, the operation of pool account was not started by SLDC and PSPCL, being the single distribution licensee in the State of Punjab, deals with the settlement (payment/ realization) of the deviation charges for the State as a whole based on the weekly deviation settlement accounts issued by Northern Regional Power Committee (NRPC) and deviation settlement of IPPs based on the monthly deviation accounts issued by SLDC.

Further, State Deviation Pool Account will be maintained by SLDC in line with the rules and procedures to be approved under the Intra-State Deviation Settlement Regulations, which is likely to be issued by the Commission shortly after which deviation/ DSM charges of 3 No. large IPPs (i.e. M/s NPL, TSPL & GVK) shall also be received/ paid through State Deviation Pool Account and subsequently after implementation of SAMAST scheme, the deviation accounting and settlement of PSPCL as a distribution licensee, PSPCL owned State Generating Stations, RE generators (including Solar generators/ pooling stations) shall also be initiated by SLDC including deviation settlement of State as a whole at Regional Level.

During various discussions held with the Commission regarding draft Intra-State DSM Regulations, the Commission emphasized on creation and operationalization of State Deviation Pool Account and it was deliberated that an initial corpus amount shall be proposed by SLDC in its ARR for initializing pool account transactions. Accordingly, the corpus amount of Rs. 16.13 Crore has been proposed based on maximum monthly DSM (Deviation) charges paid by PSPCL during the period of Feb-2019 to Aug-19.

Commission's View:

Refer Para 4.15 of this Tariff Order.

Issue No. 2:

The Commission had issued a Public Notice Inviting Suggestions and Objections of the Public and Stakeholders on proposed Draft Intra-State Deviation Settlement Regulations. 2019 to be submitted by 16.12.2019 and Public Hearing was scheduled for 17.12.2019. The regulations are yet to be notified by the Commission. These Regulations have provision of establishing, operating and maintaining Deviation Settlement Pool Fund/Account. These Regulations also provide that SLDC shall place the Deviation Account of State Entities and Pool receipt and payment accounts on its web site whereas even after 10 years of coming into existence since 16.4.2010. SLDC is still to start real time state energy account (Punjab Power Summary page of SLDC web site) on its web site. Since 2012-13, the deviation account is not being published on SLDC web site though the amounts are being charged and claimed/paid.

PSTCL's Reply:

It is clarified that monthly State Energy Accounts in respect of 3 no. IPPs and PSPCL owned State Thermal Generating Stations are already being issued by SLDC and monthly Deviation accounts of 3 no. IPPs and Open Access Customers are regularly being issued by SLDC. These accounts are regularly published on SLDC website, based on which settlements (payments/Realizations) are done by PSPCL with concerned entities. After operationalization of Pool account by SLDC, the pool account transactions shall also be uploaded on SLDC website.

Commission's View:

The objector may note PSTCL's reply.

Issue No. 3:

As per draft regulations, DSM price vector is to be taken as per CERC DSM Regulations. These CERC DSM regulations heavily penalise the defaulter of the grid normative parameters whereas the compliant entity gets less. Thus, the pool account will always remain surplus provided the entities pay the dues on time DSM fund being managed by NRPC is always positive i.e. surplus. In view of the above, the State pool account will also remain surplus all the time and the demand of PSTCL for corpus fund is evidently not justified and will unduly load the consumers as the amount will be simply parked with SLDC.

PSTCL's Reply:

The deviation/DSM charges for the State as a whole are calculated by NRPC based on the provisions of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 as amended from time to time, whereas the deviation/DSM charges for the Intra-State entities shall be based on following PSERC regulations: -

- Intra-State DSM Regulations (to be notified) applicable for PSPCL as a distribution licensee, State Generating Stations, IPPs, Co-Gen plants & RE Generators other than Solar and Wind Generators (with capacity of 5 MW and above) and Full Open Access Customers.
- PSERC (Forecasting, Scheduling, Deviation Settlement and related matters of Solar and Wind Generation Sources) Regulations, 2019 applicable for Solar and Wind Generators with individual/combined capacity of Pooling Station 5 MW and above.
- Imbalance Charges Mechanism stipulated in PSERC (Terms and conditions for Intra-State Open Access) Regulations, 2011 as amended from time to time, applicable for partial Open Access Customers.

As different regulations/methodology for calculations of deviation/DSM charges are applicable for different entities, it cannot be ensured that the pool account will always remain surplus if the entities pay the dues on time. The actual scenario regarding surplus/deficit in pool account shall become clear after its operationalization. Further, the surplus/deficit in State Pool account cannot be predicted/linked to the regional pool account, where the deviation settlement of all regional entities is being done on same methodology (based on the provisions of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 as amended from time to time).

Moreover, the corpus amount proposed by SLDC is for initialization of pool account transactions and it does not relate to the actual surplus/deficit in pool account at the end of year, which shall be dealt with as per the provisions of Intra-State DSM Regulations.

Commission's View:

Refer Para 4.15 of this Tariff Order.

Issue No. 4:

UI/DSM charges being paid/receivable by the three IPPs of the state are also being claimed by PSPCL in its power purchase cost in ARR which indicate that the net UI for all the years would be surplus in case the Pool would have been in existence.

If the OSM Regulations proposed by PSERC are made applicable to all generators including IPPs, State generators and NRSE generators including cogeneration plants, then the fund will be increasing every year rather than requiring any support from the ARR.

However, it is added that the net DSM charges received from 3 no. IPPs in last 3-4 years cannot be relied upon for predicting future surplus in pool account as the deviation/ DSM charges payable/receivable by other Intra-State Entities, whose deviation accounts are presently not being prepared by SLDC, shall also matter in deciding the future surplus/deficit in pool account.

PSTCL's Reply:

The reply to issue No. 3 may also be noted. Further , the deviation/DSM charges in respect of 3 no. IPPs are being worked out based on the provisions of CERC (Deviation Settlement Mechanism and related matters) Regulations, 2014 as amended from time to time, without any Cap Rate in line with the decision of the Commission in Petition no. 27 of 2014. After applicability of Cap rate in line with Intra-State DSM Regulations to be notified by the Commission, the position regarding payment/receipt of DSM charges in respect of 3 no. IPPs may also change.

Commission's View:
The objector may note PSTCL's reply.

Issue No. 5:
We are not aware that NRPC has ever asked for corpus from CERC or APTEL for operating the DSM pool account. In view of the above, there is no justification for parking the said amount with PSTCL/SLDC. It will remain unutilized and will be a burden on consumers of PSPCL. As such, till the OSM Regulations are finalised and notified and DSM pool as per the regulation is made operative, the existing system should continue.
PSTCL's Reply:
As already mentioned, the surplus in regional pool account of NRPC cannot predict surplus on State pool account of SLDC. Further, the pool account shall be fully operationalized only after notification of Intra-State DSM Regulations and subsequent approval of detailed procedure by the Commission.
Moreover, if the Commission feels that corpus amount shall unduly burden the consumers, the provisions proposed in draft Intra-State DSM Regulations regarding submission of Letter of Credit (LC) towards payment security mechanism may be amended to accept corpus amount (on proportional basis) instead of LC for payment security which may fulfill the need of initial corpus required for initializing the state pool account.
Commission's View:
Refer Para 4.15 of this Tariff Order.

Objection No. 07: Siel Chemical Complex (Mawana Sugars Ltd), Charatrampur, Village Khadaul/Sardargarh, Post Box No. 52, Rajpura, Distt. Patiala (PB) – 140401.

Issue No. 1. **Corpus amount towards deviation charges**

1. The projects of large IPPs i.e. NPL, TSPL and GVK were commissioned from April 2014 onwards as per UI data of SLDC. IPPs are paying / recovering the UI charges since 2014. As per the submissions, these are being paid / received by PSPCL directly and being shown in Power purchase cost of the respective years. Why same system cannot continue and why Rs. 16.13 Crore be parked with PSTCL/SLDC and who will bear the financing cost in case the fund is not utilized are not explained.
2. The Commission had issued a Public Notice Inviting comments on Draft Intra-State Deviation Settlement Regulations. 2019a and last date of submission was 16.12.2019 and Public Hearing was scheduled for 17.12.2019. The regulations have not been notified so far. These Regulations do provide for establishing, operating and maintaining Deviation Settlement Pool Fund/Account. However, as and when the DSM Regulations are implemented, all power plants of the state including those owned by PSPCL and IPPs will be covered.
3. With the Implementation of DSM Regulations, the energy will be counted by schedule and actual. If an IPP has injected above the schedule, some other IPP must have injected less or PSPCL must have drawn above its schedule. The PSPCL will pay for scheduled power to IPP and for overdrawl to DSM fund. In such a case there is no requirement of any corpus for the fund.
4. SLDC is still to start issuing Real Time State Energy Account on its website. Due to the failure of SLDC/PSTCL, PSERC has deferred the implementation of DSM for wind and solar plants to 01.01.2021 recently. PSTCL's boundary metering and

processing of data is still commissioned and transmission losses are being worked out manually since 2012-13. The deviation account is not being published on SLDC website though the accounts are being charged and claimed / paid. We feel that the proposal of PSTCL needs to be rejected outrightly at this stage and existing system should continue till SLDC is ready to perform its functions.

5. Draft DSM Regulations provide that UI and amount payable / receivable is to be calculated as per CERC Regulations. CERC DSM Regulations are so designed that the entity violating the grid discipline is heavily penalized and whereas the entity supporting the grid discipline gets normative compensation. Those required to pay have to deposit the amount in 7 days whereas those receiving get the same on 10th day. Thus the pool account always remains surplus provided the entities pay the dues on time.
6. In view of above, the state pool account will also remain surplus all the time and the demand of PSTCL for corpus fund is not justified and will unduly load the consumers as the amount will be simply parked with SLDC.
7. In any case, as and when the pool account is made operative, paying entities can be asked to pay in 7 days and receiving entities can be paid on 10th day of issue of DSM account.
8. As DSM poll account for Northern Region entities is also operative. It will be appropriate to check if such corpus fund was recovered by them to start with the pool account.
9. As DSM poll account for Northern Region entities is also operative. It will be appropriate to check if such corpus fund was recovered by them to start with the pool account.

As DSM Regulations for solar plants has been deferred to 01.01.2021 and DSM regulations for State entities is yet to be notified, there is no justification for parking the said amount with PSTCL/SLDC. It will remain unutilized and will be a burden on consumers of PSPCL. Moreover, PSTCL/SLDC should prepare the procedure for operating the fund and be ready with the software to calculate the state energy account. Till then, the existing system should continue in FY 2020-21.

PSTCL's Reply:

As per PSERC (Forecasting, scheduling, Deviation Settlement and related matters of Solar and Wind Generation Sources) Regulations, 2019, Settlement of Deviation Accounts of Solar and Wind Generators (with Individual /Combined Capacity of 5 MW and above) will be done through State Deviation Pool account maintained by SLDC. Further, as per Intra-State Deviation Settlement Regulations (yet to be notified), deviation/ DSM charges of 3 no. large IPPs (i.e. M/s NPL, TSPL & GVK) shall also be received/ paid through State Deviation Pool Account and subsequently after implementation of SAMAST scheme, the deviation accounting and settlement of PSPCL as a distribution licensee, PSPCL owned State Generating Stations, RE generators (including Solar generators/ pooling stations) shall also be initiated by SLDC including deviation settlement of State as a whole at Regional Level. The rules and procedures for maintaining SLDC are also being stipulated by the PSERC under the aforementioned regulations.

Accordingly, the corpus fund has been proposed in ARR to initiate the pool account transactions in line with the discussions held with the PSERC while deliberating the Intra-State DSM Regulations.

However, if the PSERC feels that the same shall unduly burden the consumers, the provisions proposed in draft Intra-State DSM Regulations regarding submission of Letter of

Credit (LC) towards payment security mechanism may be amended to accept corpus amount (on proportional basis) instead of LC for payment security which may fulfil the need of initial corpus required for initializing the state pool account.

Further, w.r.t. observation at Sr. no. (4) regarding not publishing of UI/Deviation accounts on SLDC website, it is submitted that UI/Deviation accounts of Open Access Customers and 3 no. IPPs (M/s NPL, TSPL, GVK) are regularly published on SLDC website.

Commission's View:

Refer Para 4.15 of this Tariff Order.

Objection No. 08: Government of Punjab, Department of Power (Power Reforms Wing)

Issue No. 1: Administration and General (A&G) expenses

The PSTCL has submitted the Administration and General (A&G) expenses and Repair & Maintenance (R&M) expenses and to provide quality, uninterrupted and affordable power to its valuable consumers in the State, special Repair & Maintenance works in addition to General Repair & Maintenance that has to be carried out. The State Government is very much concerned for providing quality, uninterrupted and affordable power to its valuable consumers in the State and the transmission system needs to maintain at its best. Repair & Maintenance of Transmission System with appropriate replacements of equipments and renovations is of great importance so that uninterrupted supply can be maintained and grid failure be avoided. The Commission is requested to allow Administration and General (A&G) expenses and Repair & Maintenance (R&M) Expenses as submitted by PSTCL.

View of the Commission:

The Commission allows R&M and A&G Expenses as per PSERC MYT Regulations. Refer Para 4.6 of this Order.

Issue No. 2: Employee Cost

PSTCL should reduce employee's cost and bring in efficiency.

View of the Commission:

The Commission agrees with the Government. PSTCL is directed to do a proper cadre review.

Issue No. 3: Capital Expenditure

The PSTCL has submitted Capital Expenditure of Rs.729.49 Crores during FY 2020-21 which includes works related with construction of new sub-stations, new lines, addition and augmentation of transmission system to cope up with the growing demand etc., laying of transmission network for evacuation of power from generation projects in the State as well as for evacuation of power share of Punjab from various Central Sector Projects. Because of the capacity addition in the State generation, appropriate transmission capacity is also required to be created. The Commission is requested to allow these expenses keeping in view the overall expenditure of the utility and inter-se priority for different works.

View of the Commission:

Please refer to para 4.4 of the Tariff Order.

Issue No. 4: SLDC Business

SLDC in Punjab has started working independently since FY 2011-12. PSTCL has submitted the revised estimates for SLDC to the tune of Rs.20.62 Crores for FY 2020-21. The SLDC is pivotal to the State's power sector. Its financial, operational and technical viability has to be maintained at every cost. The Commission is requested to approve the expenditure as detailed in the ARR for smooth functioning of SLDC.

View of the Commission:

The Commission determines the ARR for SLDC Business and Transmission Business of PSTCL separately in accordance with PSERC MYT Regulations.

Issue No. 5:
PSTCL is a profitable entity involved in transmission of electricity in the State and on the other hand PSPCL which is a loss making entity on account of its distribution activities in the State. For overall efficiency in the financial results of both the entities, there should be a rationalization in terms of linkage between the two entities. The entities should work in tandem to reduce the losses of one so as to even out the profits of the other to ensure tax efficiency and tariff rationalization in the State.
View of the Commission:
The Commission determines the ARR for both entities in accordance with PSERC Regulations.

Issue No. 6:
The Commission is requested to keep in view above comments and policy requirements of the State Government while finalizing the tariff for the year FY 2020-21.
View of the Commission:
Noted.

ANNEXURE - III

Minutes of the Meeting of PSERC, State Advisory Committee, Chandigarh held on 06th February, 2020.

A meeting of the PSERC, State Advisory Committee was held in the office of the Commission at Chandigarh on **6th February, 2020.** PSERC had invited comments of the members on the Petitions for True up for FY 2018-19, Annual performance Review (APR) for FY 2019-20 of the first MYT control period and MYT Petition and Annual Revenue Requirement and Tariff Proposal for the second MYT control period from FY 2020-21 to FY 2022-23 respectively filed by Punjab State Power Corporation Ltd. (PSPCL) and Punjab State Transmission Corporation Ltd. (PSTCL). The following were present/ represented in the meeting:-

Sr. No.	Name and Address	Designation
1.	Ms. Kusumjit Sidhu Chairperson, PSERC, Site No.3, Sector-18-A, Chandigarh.	Ex-officio Chairperson
2.	Er. S.S. Sarna Member, PSERC, Site No.3, Sector-18-A, Chandigarh.	Ex-officio Member
3.	Er. Anjuli Chandra Member, PSERC, , Site No.3 Sector-18-A, Chandigarh.	Ex-officio Member
4.	Additional Chief Secretary Department of Power, Government of Punjab, Chandigarh	Member
5.	Principal Secretary New and Renewable Sources of Energy (NRSE), Govt. of Punjab, Chandigarh	Member
6.	Smt. Parneet Mahal Suri, Secretary, PSERC, Site No.3, Sector-18-A, Chandigarh.	Ex-officio Secretary
7.	Chairman-cum-Managing Director, PSPCL, The Mall, Patiala.	Member
8.	Chairman-cum-Managing Director, PSTCL, The Mall, Patiala	Member
9.	Labour Commissioner, Deptt. of Labour & Employment, Government of Punjab, Chandigarh	Member
10.	Chairman, Punjab Farmers' Commission for the State of Punjab Mandi Bhawan, Sector-65A,Phase-XI,Mohali,	Member
11.	S. Bhupinder Singh Mann, Ex-MP, (Rajya Sabha) National President (BKU), Chairman, National Kisan Coordination Committee. Outside Qazi Mori Gate, Batala District Gurdaspur	Member
12.	Chairman, PHDCCI, Punjab Committee, Sector 31-A, Chandigarh	Member

Sr. No.	Name and Address	Designation
13.	Dr. Harish Anand, H.No.59, Sector-39, Chandigarh Road, Ludhiana	Member
14.	Chief Engineer, Punjab Agriculture University, Ludhiana	Member
15.	Director, Local Govt. Department, Punjab Chandigarh.	Member
16.	Sh. Vijay Talwar, State vice-President-cum-Co Chairman, National Power Committee, Laghu Udyog Bharti (Pb. Chapter) 1051, Dada Colony, Industrial area, Jalandhar-144004	Member
17.	Sh. P.S. Virdi, President, The Consumer Protection Federation (Regd.), Kothi No. 555, Phase-1, Sector-55, Mohali.	Member
18.	Mr. Nitin Bhatt, Regional Manager – Punjab/Haryana, Chandigarh. Energy Efficiency Services Limited, 4th floor, IWAI Building, A-13, Sector-1, Noida-201301	Member
19.	Dr. Sat Bhushan Pandhi, H.No.55, Partap Colony Model Gram, Ludhiana	Member
20.	Sh Bhagwan Bansal, President of Punjab Cotton & Ginners Association(Regd.) Shop No.109, New Grain Market, Muktsar	**Special Invitee**

At the outset, the Chairperson welcomed the members of the State Advisory Committee to the meeting of the newly constituted Committee and thanked everyone present for having taken out time to attend the meeting. The Chairperson appreciated the progress shown by Punjab State Power Corporation Limited in the sale of surplus power out of Punjab.

The Chairperson thereafter requested the members to offer suggestions/comments on the Petitions of True up for FY 2018-19, Annual performance Review (APR) for FY 2019-20 of the first MYT control period and MYT Petition and Annual Revenue Requirement and Tariff Proposal for the second MYT control period from FY 2020-21 to FY 2022-23 respectively of PSPCL and PSTCL.

Thereafter, the members gave their comments/suggestions views as under:-

1. Additional Chief Secretary / Department of Power and Chairman-cum-Managing Director, PSTCL stated as under:

- The expenditure on DSM is on the lower side in the State and the DSM Schemes need to be implemented in the State to increase efficiency and to reduce Power Purchase.
- Through checking of AP Consumption by the Commission may be done as requisite expertise to check AP Consumption is available with the Commission,

the same is also needed for the purpose of ascertaining the subsidy payable by the State Govt.

- A white paper on PPAs with the State IPPs is being prepared for putting up to the State assembly.
- The Govt. is aware of its commitment regarding payment of subsidy to PSPCL for providing subsidised power to various sections of consumers. However, the same is getting affected due to delay in receipt of GST compensation from the Centre.
- Punjab being the farthest state from the coal mines, the higher freight cost results in increase in the tariff in the State. It was suggested that the Commission may take up the matter in FoR.
- PSPCL needs to take steps to reduce its cost of supply.
- Govt. does not support PSPCL's proposal seeking increase in tariff for all categories

2. Sh. Bhupinder Singh Mann informed the Committee that:

- Agriculture should be considered as an industry. It is contributing to the state as well as to the nation through taxes collected by Punjab Mandi Board and Food Corporation of India. It was also stated that agriculture is not being subsidised by the Govt. Farmers repay the same or more through local taxes, and other charges levied by the Govt. Agencies as and when agriculture goods, equipments are purchased by the farmers and also through proceeds of crops sold in the market.

3. Sh. Ajay Vir Jakhar, Chairman of Punjab State Farmers Commission, suggested that:

- AP tube well connections should be Geo Tagged.
- Existing PPAs be renegotiated.
- Air pollution is being caused by IPPs' for which Punjab Pollution Board has taken cognizance. The Commission may also like to look into the same.
- He highlighted the need for water conservation to prevent the depleting water level. He also stressed the importance of transparency in the process of decision making.

4. Sh. R.S. Sachdeva, Chairman/PHDCCI

He congratulated the Commission for efforts made by it during the last years and the PSPCL for substantial reduction in employee strength. He further suggested that:

- Prepaid meters system be implemented for Industrial Consumers.
- The Chairperson, PSERC apprised that about 22 cases are pending in Hon'ble High Court. She also informed those present that prepaid meters for HT are not yet available due to technology constraints. These are not manufactured by any supplier in the country. The CMD, PSPCL also explained that even the smart meters are designed only for whole current and not for CT meters.
- Expenses once denied to PSPCL should not be repeated in the future ARR's as it gives wrong indication about the tariff requirement.
- Merit Order Despatch should be uploaded on PSPCL website.
- Recovery of outstanding amount of Rs.2100 Crore from Punjab Govt. Departments should be ensured by PSPCL.
- Solar generation especially in DS Category be encouraged rather made mandatory
- He requested for rationalisation of Tariff and cross subsidy, based on cost of supply.
- Surplus power should not be surrendered. Instead, efforts are required to utilize the same by increasing the consumption.
- Mandatory off-days need to be discontinued.
- Relief in fixed charges be given to industries having low utilisation factor.
- He Requested for reduction in ToD surcharge and increase in high voltage rebate

Sh. Singla, PHDCCI, stated:

- Despite having surplus power, PSPCL is still signing new PPAs.
- Merit Order Despatch should be based on the variable cost for the last month only.
- T&D Losses to be allowed only after prudence check.

5. Dr. Harish Anand of CII, Punjab State Council

The following suggestions were made:

- MDI recording may be introduced in domestic connections for correct assessment of the Load. Also, with the help of Information technology available, connected load can be derived based on the actual maximum consumption by using a suitable formula.
- There is a great scope for increase in power consumption in Punjab, which is very low in comparison to per capita electricity consumption in developed countries. However, the same can be increased only when economic development take place at faster rate with manufacturing sector growth in Punjab.
- The ease of doing business is also required in electricity matters in the State. There are lot of cases pending between PSPCL and consumers and same should be settled at one time basis. A committee of the Power Deptt., PSERC nominee and PSPCL official along with some consumers may be formed to look into the matter and some sort of LoK Adalat may be formed to expedite resolution of such cases.
- Over the years, payment made to Independent power producers for fixed charges of surrendered power has burdened the consumers of the State. It is stated that about Rs.1400 Crore per year would be given to them in next 3 years or so. It is submitted that as this malaise looks incurable, the State Government or PSPCL should take the burden of such expenses and the same should not be recovered from consumers in the form of ARR.
- T&D losses are high in west Punjab area at about 40% against 15% on an average at State level. The prepaid meter should be installed in all such connections where payment is not made or a special regional surcharge may be imposed on such consumers, who do not wish to take pre-paid meter. Prepaid meters should be installed in the areas where such theft of power is taking place or where the payment is not received, to bring T&D losses in normal range.
- Non- payment of dues by Government offices must be looked into and if Government is not reimbursing their dues the same should also be excluded from ARR and must not be charged from consumers of the state.
- Under UDAY scheme, the Government is supposed to take over their loan worth about Rs. 15000 Crore of PSPCL. However, PSPCL is still paying interest on such loans. The same should be excluded from the ARR. Similarly, as per UDAY, the State Government was supposed to take a certain percentage i.e. 25%of

PSPCL losses of FY 2018-19 and 50% of losses of FY 2019-20. The same should also be looked into.

- A long time has passed since the working of cost of supply based on voltage was worked out therefore, the same should be reworked in the view of new facts and more accurate data. Accordingly, the category wise cost of supply should be reassessed and cross subsidy should be reworked, based on category wise cost of supply.
- Power supplied to agriculture sector should be priced fairly on actual cost to serve basis and government should be asked to give full cost of such power to PSPCL.
- New tariff or concession in tariff should be provided for those who want to shift their Industrial Plants to Punjab.
- Action in the following direction would go a long way in improving operational efficiency, quality of power given to consumers and grievance handling mechanism.

a) **Use of technology:** Connected load of domestic consumer is far less than actual electricity consumed by them due to lower declaration of connected load. In this regard, following inputs are given to manage this situation:

The connected load is given on the electricity bill and actual consumption is also given.

b) With the help of Information technology available with PSPCL (SAAP), based on **actual maximum consumption** of (say) three months out of 12 months, connected load may be derived by using suitable formula by PSPCL. Compare the derived additional load as calculated above with actual connected load. The difference of the both may be treated as additional connected load of the consumer, which he needs to enhance. Based on Rs/KW and other charges etc, additional amount due from such consumers can be calculated.

The findings of the above can be corroborated with a field study. Using sample method, selected areas declared connected load of consumers may be compared with the MDI (of same months used above, 3 months of maximum consumption) based estimated connected load of transformer feeding to such areas. The resultant difference can be compared with study findings and if there is difference, the study assumptions can be modified accordingly and connected load and due amount from such consumers can be revised.

c) The consumer can be informed through notification and be asked to verify its connected load in 1-2 months. After that, the same due amount can be recovered in 12 equal installment in the electricity bill by charging a nominal interest of about 3(assuming 6% normal interest on saving accounts and taking six month average outstanding amount as installment paid regularly). There should be no need to ask consumer to deposit the same to PSPCL.

d) Meanwhile, through newspapers, public be regularly informed about the issue, its implications (night cuts due to overloading etc) and problems faced by people and PSPCL's inability to provide uninterrupted power regularly till this exercise is completed.

e) There is great scope for increase in power consumption in Punjab, which is very low in comparison to the per capita electricity consumption of developed countries. Industrial consumers have shown an increase in power consumption by 7% mainly due to the State Government decision to provide subsidised power at Rs.5/unit. Due to this factor, the industry especially steel industry has survived in Punjab. However, continuous rise in power tariff would lead to import of cheaper steel products while PSPCL's power would remain un-utilised. Therefore, it is desirable that power tariff should not be increased anymore and financial needs of PSPCL should be met through increase in efficiency and support from the government.

6. Sh. Bhagwan Bansal-President, Punjab Cotton & Ginners Association, Muktsar

He made the following suggestions:

- In order to increase industrial consumption in backward areas of Mukatsar, Mansa and Bathinda, Industrialists should be encouraged to establish units by providing concessions in stamp duty and GST on the pattern of border areas.
- Steps should be taken for revival of closed units. With farmers shifting to growing cotton crop again, Industrialists intend to restart their closed Ginning units, however, PSPCL is demanding MMC charges to revive the connection. The Commission should step in so that some of surplus power can be used.
- Since, the Cotton & Ginning industry run for about 4 ½ months only during the year, fixed charges need to be reduced for such Seasonal Industry.

7. Er P.S. Virdi, President, The Consumers Protection Federation(Regd.) Mohali

He suggested as under:-

- Most of consumers in the State are having free electricity. It would be reasonable to consider only small farmers (up to 2.5 to 5 acres) for subsidy and not medium & rich farmers with 5 to 10 acres & above. These freebees lead to misuse power for houses, AC's, heaters, more than one motor and also by way of sale of water. Subsidy should be in the form of units through fitted meters & not for free connections. Each farmer must be charged for extra consumption. Out of 14.5 lac tubewells on subsidy in Punjab, small farmers beneficiaries are only 19% and rest 81% are larger/rich and Medium farmers. The Commission should watch the interests of the consumers as well as PSPCL.

- Illegal Tube well connections add additional load on Pb. exchequer. Recently, more than 100 illegal tube well connections were caught during raids, in Bathinda District alone, where some old documents have also been found tampered with and missing. This practice may be curbed.
- Rs. 2100 Crores are still pending against the various depts. of Punjab Govt. which may improve the financial position of the Corporation, in case PSPCL takes serious measures to recover the same.
- Per unit cost of electricity in the State is very high.
- T&D losses in certain pockets of the State are on higher side. To control the same, the help of local Welfare Associations at the district level may be taken.
- Punjab Govt. is encouraging Solar power. On the other hand, PSPCL is harassing by not issuing proper Bills to Solar power consumers and other domestic consumers in Mohali from the last more than one year. This require attention.

8. Dr. Sat Bhushan Pandhi, Ludhiana:-

He gave the following suggestions:-

- The Tariff is already high because of faulty PPAs, the interest and late payment surcharge on the amount to be paid to two IPPs as per Hon'ble Supreme Court's verdict, should not be passed to the consumers. Fixed charges may also be reduced.
- Out of the two-part tariff, rates of Fixed Charges be decreased by 30-40% which have nothing to do with electricity consumption.
- The formula for calculating consumed units for Variable Charges be made simple. Instead of 3 different rates i.e. Rs.4.99 for first 100 units, Rs.6.59 for next 200 units and Rs. 7.20 for next 200 units only one rate should be kept for first 500

or 400 units. Rate beyond that limit be kept different.

- Rich farmers having more than 5 Acre of land should not be given any subsidy. Comparatively poor farmers having less than 5 acres of land be given electricity at nominal rates but it should not be absolutely free, because there is always misuse of the things received in free.
- No free electricity be given to Religious places as they earn a lot from donations.
- Electricity to Gau-Shallas etc. be given at subsidised rates but not absolutely free avoiding national wastage and mis-use.
- Pending dues of more than Rs.2100 Crore be recovered from Govt. Departments or other such departments.

9. **Sh. Kamal Dalmia, Chairman, Focal Point Industries Association, (Regd) Amritsar,** expressed his inability to attend the meeting However**,** Hemade following suggestions in writing:

- PSPCL should improve its working with the help of Internal Auditors having global experience and minimize its losses.
- Due to electricity rates on the higher side, Industry is not in a position to compete with the products of adjoining states.
- The number of suppliers be increased to have healthy competition, improvement in quality of power. Presently, PSPCL is passing on the cost of their inefficiency to consumers.

10. **Sh. Nitin Bhatt, Regional Manager, Punjab/Haryana, Chandigarh, Energy Efficiency Services Limited, Noida**

- He stressed for reduction in cost of supply by reducing T&D losses and adopting energy efficient appliances.
- He apprised the Committee that LEDs are available in the Post Offices in Punjab at subsidised rates. Also energy efficient ACs at 20% less cost are being marketed as a 'pilot project' in five districts of Punjab. He also apprised the committee that more than one lac smart meters have been installed.

11. **Sh. Vijay Talwar, Vice President Laghu Udyog Bharti:**

- He appreciated the formation of the Consumer Advocacy Cell in PSERC which should be strengthened further to help, guide and watch the interest of electricity consumers so that every poor consumer who can't afford to pay legal expanses should be provided services free of cost.

- To ease out the burden of surplus power that causes increase in Tariff every year, he suggested that :
    - Shortage of Technical Staff is causing delay in attending consumer complaints. PSPCL should deploy the manpower in the Divisions/ Sub-Divisions appropriately so that the operation work may not suffer.
    - Value of damaged transformers is Rs. 396 Crore. The earthing and periodical de-hydration of transformers installed by PSPCL is urgently required, which will not only reduce transformer damages but will also reduce T&D losses. This will ultimately help in increased use of electricity by consumers.
    - During the period (paddy season), only short term power purchase is required, for the rest of the year i.e. 16th Sep to 14th June every year there is surplus power. Thus, this period can be said as off peak period and Tariff rates during this off peak period should be reduced to Rs: 4/-per unit so that consumers of all categories may use more power towards industries, hotels, motels, marriage palaces, public lighting, Power intensive units, paper mills etc. which will not only increase per capita consumption of electricity, but industry can compete with units installed in neighbouring states. where electricity rates including taxes are lesser than Punjab.
    - During, winter season, surplus power in night hours can be reduced by attracting industry to use more power during night at concessional rate which should not be more than the rate on which PSPCL surrenders power.
    - Tariff for Power Intensive Unit and General Industry under LS category should be the same so as to encourage PIU to use more power which will ultimately let Industry to compete with similar industry in other States.
    - PIU Industry should be allowed to install independent feeder exceeding Contract Demand of 1000kVA, which will solve problem of harmonics generation and it will increase the usage of surplus power by getting un-interrupted supply.
    - T.O.D. tariff and Threshold limit rebates should be allowed to all the consumers irrespective of load/voltage so as to encourage usage of electricity during night hours by switching electric appliances and replacing the gas burners with electric heater/induction heater for cooking food.
    - Consumers should be allowed to increase 10% load/demand every year

without any service connection charges to meet demand which will ultimately benefit PSPCL by way of additional fixed charges on extended Load/demand.

- PSPCL should release electricity connection within 30 days from receipt of Application (A&A Form) as mandated U/S 43 of Indian Electricity Act-2003.
- Feeder length should not be more than 2 KM to save line losses. Consumers near or far away from sub-stations should be charged proportionately the cost of feeder assuming 2 KM as length of feeder irrespective of actual length. This will encourage consumers to install new connections and extension in load/demand which will reduce surplus power.
- To increase the demand from 4000 KVA to 5000 KVA on H.T. in view of capacity of 150 mm^2 X LPE cables upto 5600 KVA and 300 mm^2 X LPE cables upto 8600 KVA. The increase in limits shall help to increase the load of consumers to tackle surplus power and may also help in releasing of extra demand without Right of way problems.
- LT supply should be given for getting the load sanctioned up to 150 kVA instead of 99kVA so that consumer may extend their load/demand.
- Consumers who load up to 7kW may be allowed to have 3 phase connection at their option so that consumers having single phase supply are able to install electric installations such as geysers, air conditions etc. within sanctioned load less than 7 kW.

- In the Tariff Order and subsidy allowed by State Government. The words "the Variable" charges is mentioned. Understanding the meaning of Variable tariff is must for the purpose of calculating Government subsidy granted U/S 65 of Electricity Act 2003.
- Tariff Policy 2016 Clause 8.3(4) clearly states that Free Electricity is not desirable as it encourages wasteful consumption of electricity and in most cases results in lowering of the Water table which in turn creates an avoidable problem of water shortage for irrigation and drinking water for the coming generations. Subsidized rates of electricity should be permitted only upto a pre-identified level of consumption, beyond which tariff reflecting efficient cost of service should be charged from consumers.
- Ministry Of Power, Government Of India has instructed all the Electricity Regulatory Commissions of India to implement the policy of installing Prepaid /

Prepayment Meters within 6 (Six) months from 16-01-2020 i.e. date of issue of these directions. Moreover, cash flow of Licensee will improve by getting advance payment. Supply Code and Related Matters regulations (2014) also mandate providing Prepaid / Pre-payment meters and to encourage supply on Prepaid / Pre-payment meters has allowed 1% rebate.

- He suggested that if the data downloaded from the meters shows power supply not available on the meter of the consumer for more than 72 hrs in the billing cycle, the fixed charges be reduced accordingly. This will help in quick restoration of supply.

12. Er. Baldev Singh Sran, CMD/PSPCL

While welcoming the feedback of the committee members, he gave his comments as under:

- The ACS including PPAs in Punjab is Rs.6.08 which compared to other State is very reasonable.
- There is a typical load pattern of the State, wherein maximum demand varies from 5000-5500 MW in winter to around 12000 MW in the summer. Also, there is wide variation in load pattern during day and night in the winter. With this type of load, it is difficult to optimize the generation capacity of own sources and power procurement from other sources. As a result, the state has surplus power during the winter.
- PSPCL is committed to give quality supply to its consumers at reasonable rates. Of course, the issue of surplus power, higher employee cost and inefficiency in certain areas is a matter of concern which PSPCL is trying to address.
- The Average Cost of Supply (ACoS) in Punjab is still reasonable as compared to most of the other States.
- PSPCL is trying its best to decrease the burden of surrendered power by selling power through exchange, although sale during the current year has not been as good.
- The Hon'ble Supreme Court's decision regarding the payment of coal washing charges to IPPs has resulted in increased cost of power from IPPs. So far Power Purchase Agreements are concerned; a white paper is being prepared. However, since 3100 MW of power is being met out from two IPPs, scraping of

these PPAs may result in reduced supply to AP and DS consumers during the paddy season, when demand of energy jumps to 14000 MWs.

- Operationalization of the Pachhwara coal mine and Shahpur Kandi Hydel Project will substantially reduce the cost of supply.
- At present no weekly off day is observed. However, in case any preventive maintenance is required, the same is scheduled with prior notice.
- Efforts are being made to prevent thefts and recover arrears.
- A request has been made to the Commission in the ARR Petition for simplification of categories.
- There is no scope for relaxation of ToD surcharge in the evening peak-Load hours during the paddy season. as, despite the restriction being imposed on AP feeders, load curve during paddy season is almost flat throughout the day.
- Morning peak during the summer is also a serious issue as exchange rates during this period is quite high. However, in view of only small number of consumers opting for exclusive night category, PSPCL has consented to extend the benefit to this category for the ongoing paddy season.

The Chairperson thanked all the members for their valuable comments and suggestions.

The meeting ended with a vote of thanks to the chair.