

PUNJAB STATE ELECTRICITY REGULATORY COMMISSION



PSTCL
TARIFF ORDER FOR 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. 67 OF 2021 FILED BY PUNJAB STATE TRANSMISSION CORPORATION
LIMITED FOR TRUE UP OF FY 2020-21, ANNUAL PERFORMANCE REVIEW FOR
FY 2021-22 AND APPROVAL OF ANNUAL REVENUE REQUIREMENT AND
DETERMINATION OF TARIFF FOR FY 2022-23 FOR ITS TRANSMISSION
AND SLDC BUSINESS.**

PRESENT: Sh. Viswajeet Khanna, Chairperson
Ms. Anjuli Chandra, Member
Sh. Paramjeet Singh, Member

Date of Order: 31st March, 2022

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 the True-Up of FY 2020-21, Annual Performance Review (APR) for FY 2021-22 and Approval of Annual Revenue Requirement and Tariff for FY 2022-23 for Transmission Business and SLDC Business 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 the hearings held at Ludhiana, Amritsar, Bathinda and Chandigarh and the responses of PSTCL to the objections 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 2021-22. The Tariff Order for FY 2007-08 had been passed by the Commission in suo-motu proceedings.

PSTCL has submitted that the Punjab State Transmission Corporation Limited is the Transmission Licensee for Transmission of Electricity in the areas as notified by the Government of Punjab vide notification No. notification. 1/9/08-EB(PR)/196 dated

16.04.2010. PSTCL is vested with the function of intra-state Transmission of electricity in the State of Punjab and the operation of the State Load Dispatch Centre (SLDC) and in terms of Section 39 of the Electricity Act, 2003, the Govt. 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, 2019 (hereinafter referred to as “PSERC MYT Regulations, 2019”) vide notification No. PSERC/Secy/Regu. 140 dated 29.05.2019 which have come into force from 1.04.2020 to 31.03.2023. The relevant regulations have been followed for the respective years while passing the present Tariff Order.

1.2 True Up for FY 2020-21, Annual Performance Review for FY 2021-22 and Annual Revenue Requirement for FY 2022-23.

PSTCL has filed the present Petition for True up of FY 2020-21, APR for FY 2021-22 and Annual Revenue Requirement for FY 2022-23. The petitioner has prayed:

- a) To admit the Petition seeking approval of True-up of FY 2020-21 in accordance with the PSERC MYT Regulations, 2019, as amended from time to time and approval of Annual Performance Review for FY 2021-22 and revised Aggregate Revenue Requirement and Tariff for FY 2022-23 for Transmission Business and SLDC in accordance with the PSERC MYT Regulations, 2019;
- b) To approve Revenue Gap arising on account of True-up of FY 2020-21 and Annual Performance Review for FY 2021-22 along with their carrying cost and allow their recovery through Tariff of FY 2022-23, as computed in the Petition;
- c) To approve the ARR forecast and Tariff for FY 2022-23 for Transmission Business and SLDC Business;
- d) To invoke its power under Regulation 64 in order to allow the deviations from PSERC MYT Regulations, 2019, wherever sought in the Petition;
- e) To allow additions/alterations/modifications/changes to the Petition at a future date;
- f) To allow any other relief, order or direction, which the Commission deems fit to be issued;
- g) To condone any error/ omission and to give opportunity to rectify the same;

The petition was admitted vide Order dated 07.12.2021 and the deficiencies observed

in the petition were conveyed to PSTCL vide Order dated 13.12.2021. PSTCL submitted its reply to the deficiencies vide letter no. 3166 dated 20.12.2021. PSTCL was further directed by the Commission vide order dated 06.01.2022, letter No. 296 PSERC/Tariff-T dated 04.02.2012 letter No. 408/PSERC/Tariff/T dated 25.02.2012 to provide additional information. PSTCL submitted its reply to the additional information vide email dated 11.02.2022, memo no. 119, dated 12.02.2022 and memo No. 184 dated 02.03.2022. Various meetings were held with PSTCL on the data submitted in the ARR 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 The Tribune (English), Hindustan Times (English), Punjabi Tribune, Punjabi Jagran (Punjabi) & Dainik Jagran (Hindi) on 16.12.2021 inviting objections from the general public and stake holders on the said petition filed by PSTCL. Copies of the Petition including deficiencies pointed out by the Commission and the reply 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 Superintending Engineers, P&M Circles, Ludhiana, Patiala, Jalandhar, Amritsar and Bhatinda. The information was made available on the website of PSTCL i.e. www.pstcl.org and The Commission's website i.e. www.pserc.gov.in. The relevant correspondence with PSTCL was also uploaded on the website of The Commission. In the said public notice dated 16.12.2021, 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 the dates to be notified in due course. In view of the sudden surge in COVID-19 cases in the State of Punjab the Commission decided to postpone the public hearing and revised schedule for holding the public hearing was given. The public hearings were held at Ludhiana, Amritsar, Bhatinda & Chandigarh, as per details here under:

Venue	Proposed Date & time of public hearing	Category of consumers to be heard
LUDHIANA Multi Purpose Hall, Power Colony, PSPCL, Opp. PAU Ferozepur Road, Ludhiana	February 08, 2022 (Tuesday) 11:30 AM onwards	All consumers/organizations of the area
AMRITSAR VIP Guest House, PSPCL, Batala Road, Verka at Amritsar	February 10, 2022 (Thursday) 11:30 AM onwards	All consumers/organizations of the area including consumers/organizations of Jalandhar area
BATHINDA Conference Room, Guest House, Thermal Colony, PSPCL, Bathinda	February 15, 2022 (Tuesday) 12:00 PM onwards	All consumers/organizations of the area
CHANDIGARH Commission's office i.e. Site No 3, Sector 18-A, Madhya Marg, Chandigarh – 160018.	February 17, 2022 (Thursday) 11.30 AM onwards	All consumers/organizations
	3.00 PM onwards	Officers'/ Staff Associations of PSPCL and PSTCL

A public notice to this effect was uploaded on the website of the Commission as well as published in various newspapers on 08.01.2022. The period for submitting the objections/suggestions was extended upto 31.01.2022 and public notice in this regard was published in various newspapers. 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 08.02.2022 to 17.02.2022 at Ludhiana, Amritsar, Bathinda & Chandigarh. The views of PSTCL on the objections/comments received from public and other stakeholders were heard by the Commission on 28.02.2022.
- 1.5 The Government of Punjab was approached by the Commission vide DO letter No. 316-317 dated 09.02.2022, and D.O No. 384 dated 21.02.2022 seeking its views on Petition no. 67 of 2021 filed by Punjab State Transmission Corporation Limited. No comments have been received from Government of Punjab.
- 1.6 The Commission received 5 written objections including the comments of Government of Punjab. PSTCL was directed to send its response to the objections raised by the respective objectors. The Commission considered all these objections. 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.	1
2.	Industries	4
3.	Total	5

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 also. 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.

1.7 State Advisory Committee

A meeting of the State Advisory Committee constituted under Section 87 of the Act was convened on 22.02.2022 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.

- 1.8 In addition, all subsequent and relevant correspondence between the Commission and PSTCL was made available 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.

1.9 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 fresh directives of the Commission in this petition is given in **Chapter-4** of this Tariff Order.

Chapter 2

True up for FY 2020-21

2.1 Background

The Commission had approved the Annual Revenue Requirement (ARR) of PSTCL for FY 2020-21 in its Order dated 01.06.2020 which was based on expenditure and revenue estimates of PSTCL for its Transmission and SLDC Businesses. Subsequently, the Commission, in the Tariff Order dated 28.05.2021 of FY 2021-22, reviewed the estimates and revised the ARR for FY 2020-21 based on the revised data made available by PSTCL.

This Chapter contains the true-up of FY 2020-21, based on the prudence check conducted by the Commission of the data submitted by PSTCL in Petition No. 67 of 2021.

2.2 Transmission System Availability

PSTCL has submitted its month-wise Transmission System (TS) Availability for FY 2020-21 as under:

Table 1 : Transmission System (TS) Availability of PSTCL for FY 2020-21

Sr. No.	Month	TS Availability (%)
1.	April-20	99.8843%
2.	May-20	99.4672%
3.	June-20	99.8743%
4.	July-20	99.8284%
5.	August-20	99.9342%
6.	September-20	99.9568%
7.	October-20	99.9546%
8.	November-20	99.7799%
9.	December-20	99.7814%
10.	January-21	99.9212%
11.	February-21	99.8569%
12.	March-21	99.7396%
	Average Availability	99.8324%

This is further discussed in **para 2.18**.

2.3 Transmission Loss

- 2.3.1** In the Business Plan Order including the Capital Investment Plan dated 03.12.2019, the Commission has approved the Transmission loss trajectory of reduction of 0.02% every year for 2nd MYT Control Period. The Commission further stated that the Transmission losses for the 2nd Control Period shall be reviewed on the basis the actual losses for FY 2019-20.
- 2.3.2** The Commission, in the MYT Order for 2nd Control Period dated 01.06.2020, had provisionally approved the transmission loss of 2.48% for FY 2021-22 as per the approved losses of 2.50% for FY 2019-20.
- 2.3.3** Further, during the APR of FY 2020-21 in Tariff Order of FY 2021-22, the Commission observed that PSTCL has changed the methodology of calculating the percentage transmission losses. The Commission further observed that the actual Transmission loss reported by PSTCL till December of FY 2020-21 was 2.47%. Since the losses in lean months (Jan-March) were observed to be comparatively higher, the Commission had decided to provisionally retain the transmission loss level at 2.48% for FY 2020-21 as approved in the Tariff Order dated 01.06.2020 of FY 2020-21.

PSTCL's Submission:

- 2.3.4** PSTCL has requested the Commission to approve the actual transmission loss of 2.50% for FY 2020-21. The details of energy input and energy output wheeled through the transmission system of PSTCL during FY 2020-21 are as under:

Table 2: Actual Transmission Loss submitted by PSTCL

Sr. No.	Particulars	FY 2020-21
1	Energy Input (MU)	53200.01
2	Energy Output (MU)	51870.78
3	Transmission Loss (MU)	1329.22
4	Transmission Loss (%)	2.50%

- 2.3.5** PSTCL has considered the input energy by adding the netting of energy at Interstate-PSTCL & Generation-PSTCL boundaries and import energy between PSTCL-PSPCL boundary points for calculation of Transmission Losses instead of taking the gross input energy to PSTCL and submitted the Transmission Losses as under:

Table 3: Transmission losses as submitted by PSTCL for FY 2020-21

Sr. No.	Month	Total import at PSTCL Substations	Total export at PSTCL Substations	Transmission Losses	
		MWh	MWh	MWh	%
1	April,2020	2060528.426	2013439.980	47088.446	2.29
2	May,2020	3645819.449	3557271.919	88547.530	2.43
3	June,2020	6154286.923	6007971.788	146315.135	2.38
4	July,2020	6832506.897	6663203.593	169303.304	2.48
5	August,2020	6909645.885	6740066.682	169579.203	2.45
6	September,2020	6730555.815	6557362.794	173193.021	2.57
7	October,2020	4269557.081	4165479.421	104077.660	2.44
8	November,2020	2805741.910	2733357.997	72383.913	2.58
9	December,2020	3459071.414	3372117.821	86953.593	2.51
10	January,2021	3455874.185	3362398.248	93475.937	2.70
11	February,2021	3241284.667	3151254.517	90030.150	2.78
12	March,2021	3635133.585	3546856.774	88276.811	2.43
	Total Losses for FY 2020-21	53200006.237	51870781.534	1329224.703	2.50

Commission's Analysis:

2.3.6 The Commission observed that the Actual Transmission loss submitted by PSTCL is 2.50% (1329.22 MWh) whereas the Commission has approved the Transmission loss of 2.48% for FY 2020-21.

2.3.7 The relevant section of Regulation 30.3 and 54.3 of PSERC MYT Regulation 2019 is as under:

“30. SHARING OF GAINS AND LOSSES ON ACCOUNT OF CONTROLLABLE AND UNCONTROLLABLE FACTORS

....

30.3. The approved aggregate gain and loss to the Applicant on account of controllable factors shall be dealt with in the following manner:

(a) 50% of such gain shall be passed on to consumer over such period as may be specified in the Order of the Commission;

(b) The balance amount of such gain shall be allowed to be retained by the Applicant;

(c) Loss, if any, will be borne by the Applicant.”

“54. TRANSMISSION LOSS

....

54.3. The Commission may stipulate a trajectory for Transmission Loss in accordance with Regulation 4.4(c) as part of the Multi-Year Tariff framework applicable to the Transmission Licensee:

Provided further that any variation between the actual level of Transmission Loss, as determined by the State Load Despatch Centre and the approved level, shall be subject to provisions of Regulation 30:

Provided further that any gain / loss sharing with the Transmission Licensee on account of overachievement / under-achievement of the Transmission Loss trajectory specified by the Commission, shall be capped to the Return on Equity earned by the Transmission Licensee for the respective year.”

2.3.8 Accordingly, the Commission has calculated the loss to be borne by PSTCL as under:

Table 4: Loss to be borne by PSTCL on account of under-achievement of Transmission Loss

Sr. No.	Particulars	Formulae	
1	Actual Transmission Loss (in MU)	A	1329.22
2	Target Transmission Loss (in MU)	$B = 2.48\% \times 53200^*$	1319.36
3	Transmission Loss Disallowed (in MU)	$C = A - B$	9.86
4	Short-term power purchase rate (Rs./kWh)	D	2.82
5	Deduction on account of under-achievement of Transmission Loss (in Rs. Crore)	$E = C \times D / 10$	2.78

* Total Import at PSTCL substations in MUs as submitted by PSTCL

2.3.9 Thus, the Commission disallows an amount of Rs. 2.78 Crore as loss sharing by PSTCL on account of under-achievement of Transmission Loss trajectory specified by the Commission. Since the amount disallowed is less than the RoE earned by PSTCL in FY 2020-21, the entire amount of Rs. 2.78 Crore is disallowed.

2.3.10 For True-up of FY 2020-21, the Commission approves the transmission loss of 1319.36 M kWh which is 2.48%.

2.4 Capital Expenditure

2.4.1 The Commission vide Order dated 03.12.2019 for 2nd Capital Investment Plan (CIP) in Petition No. 19 of 2019 had approved the Capital Investment Plan of Rs. 638.00 Crore including IDC and IEDC for FY 2020-21. The Commission had approved the following list of works for PSTCL in the Capital Investment Plan dated 03.12.2019:

- 1) Capital Investment for Schemes approved in 1st Control Period
- 2) Capital Investment for Schemes approved by Board in FY 2020-21 outside 1st Control Period
- 3) Capital Investment for Schemes already planned for FY 2020-23
- 4) Capital Investment for New Schemes planned for FY 2020-23
- 5) Capital Investment for P&M Works for 2nd Control Period
- 6) Capital Investment for SLDC for 2nd Control Period

2.4.2 In the Tariff Order for FY 2020-21 dated 01.06.2020, the Commission capped the Capital Expenditure (inclusive of IEDC and IDC) of PSTCL to Rs. 400.00 Crore during FY 2021-22. Considering the situations due to Covid-19, the Commission vide Tariff Order dated 28.05.2021 for FY 2021-22 provisionally approved the Capital Expenditure (inclusive of IEDC and IDC) of Rs. 200.00 Crore for FY 2020-21. PSTCL was given the liberty to prioritize the approved schemes within the approved limit. The details of the Capital Expenditure approved vide Tariff Order dated 28.05.2021 are as under:

Table 5: Details of the Capital Expenditure approved vide Tariff Order dated 28.05.2021

(Rs. Crore)		
Sr. No.	Particulars	FY 2020-21
1	Transmission	187.39
a	Spill over Schemes	123.00
b	New Schemes	64.39
2	SLDC	12.61
a	Spill over Schemes	1.10
b	New Schemes	11.52
3	PSTCL	200.00

PSTCL's Submission:

2.4.3 PSTCL has submitted that they have incurred capital expenditure amounting to Rs. 218.76 Crore for Transmission Business and SLDC Business during FY 2020-21.

2.4.4 PSTCL has further submitted that they have incurred capital expenditure of Rs. 4.00 Crore which have been directly transferred to GFA and do not form part of CWIP account. The detail break-up of these assets is as under:

Table 6: Detailed break-up of assets directly transferred to GFA during FY 2020-21

(Rs. Crore)		
Sr. No.	Particulars	FY 2020-21
1	Buildings	0.73
2	Plant and Machinery	1.85
3	Vehicles	0.70
4	Furniture and fixture	0.63
5	Office Equipment	0.09
6	Total Assets directly transferred to GFA	4.00

2.4.5 The details of Capital Expenditure as submitted by PSTCL for FY 2020-21 is as under:

Table 7: Details of Capital Expenditure submitted by PSTCL for FY 2020-21

(Rs. Crore)				
Sr. No.	Description	Transmission	SLDC	PSTCL
	Capital Expenditure on Spillover schemes during FY 2020-21			
1a	Contributory works	89.80	0.00	89.80
1b	Works under PSDF Scheme	6.48	0.00	6.48
1c	Others	100.40	0.95	101.35
1	Total Capital Expenditure on Spillover schemes	196.68	0.95	197.63
2	Total Capital Expenditure on New schemes	21.13	0.00	21.13
3	Total Capital Expenditure during FY 2020-21 as per Accounts (1+2)	217.81	0.95	218.76
4	Add: Assets directly purchased and transferred to GFA	3.96	0.04	4.00
5	Total Capital Expenditure (3+4)	221.78	0.99	222.77

Commission's Analysis:

2.4.6 The Commission observes that Capital Investment for FY 2020-21 approved vide Capital Investment Plan (CIP) Order dated 03.12.2019, 2nd MYT Order, revised in the APR and capital expenditure submitted by PSTCL for true up of FY 2020-21 is as under: