

**Table 73: Incentive on Transmission System (TS) Availability for FY 2020-21 submitted by PSTCL**

(Rs. Crore)

Sr. No.	Month	TS Availability (%)	Monthly Transmission Charges	Transmission Charges including Incentive	Incentive
1.	Apr-20	99.8843%	110.90	111.74	0.84
2.	May-20	99.4672%	114.60	115.14	0.54
3.	Jun-20	99.8743%	110.90	111.74	0.84
4.	Jul-20	99.8284%	114.60	115.47	0.87
5.	Aug-20	99.9342%	114.60	115.47	0.87
6.	Sep-20	99.9568%	110.90	111.74	0.84
7.	Oct-20	99.9546%	114.60	115.47	0.87
8.	Nov-20	99.7799%	110.90	111.74	0.84
9.	Dec-20	99.7814%	114.60	115.47	0.87
10.	Jan-21	99.9212%	114.60	115.47	0.87
11.	Feb-21	99.8569%	103.51	104.29	0.78
12.	Mar-21	99.7396%	114.60	115.46	0.86
	<b>Total</b>	<b>99.8324%</b>	<b>1349.32</b>	<b>1359.21</b>	<b>9.88</b>

**Commission's Analysis:**

2.18.2 The Commission determines the Incentive on Transmission System Availability for FY 2020-21 in accordance with Regulation 52 of PSERC MYT Regulations, 2019 which is reproduced as under:

*“ Normative Annual Transmission System Availability Factor (NATAF)*

*(a) For recovery of Annual Fixed Cost, NATAF shall be as 98.5% for AC system:*

*(b) For Incentive, NATAF shall be more than 99% for AC system:*

*Provided that no Incentive shall be payable for availability beyond 99.75%.”*

2.18.3 The Commission observes that 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 70 of this Tariff Order, as under:

**Table 74: Incentive on Transmission System (TS) Availability for FY 2020-21 determined by the Commission**

(Rs. Crore)

Sr. No.	Month	TS Availability (%)	Transmission Charges inclusive of Incentive	Monthly Transmission Charges	Incentive
1.	Apr-20	99.8843%	110.85	110.02	0.83
2.	May-20	99.4672%	114.22	113.68	0.54
3.	Jun-20	99.8743%	110.85	110.02	0.83
4.	Jul-20	99.8284%	114.54	113.68	0.86
5.	Aug-20	99.9342%	114.54	113.68	0.86
6.	Sep-20	99.9568%	110.85	110.02	0.83
7.	Oct-20	99.9546%	114.54	113.68	0.86
8.	Nov-20	99.7799%	110.85	110.02	0.83
9.	Dec-20	99.7814%	114.54	113.68	0.86
10.	Jan-21	99.9212%	114.54	113.68	0.86
11.	Feb-21	99.8569%	103.46	102.68	0.78
12.	Mar-21	99.7396%	114.53	113.68	0.85
	<b>Total</b>	<b>99.8324%</b>	<b>1348.33</b>	<b>1338.53</b>	<b>9.80</b>

2.18.4 Thus, the Commission allows the incentive of Rs. 9.80 Crore for FY 2020-21 to PSTCL for achieving higher transmission system availability than the Normative Annual Transmission System Availability Factor (NATAF) specified in the PSERC MYT Regulations, 2019.

## 2.19 Carrying Cost of Previous Years

2.19.1 The Commission allowed carrying cost of Rs 1.01 Crore in para 4.14 of Tariff Order for FY 2020-21. The same amount is being considered for the ARR of FY 2020-21.

## 2.20 Net Revenue Requirement

2.20.1 Considering the Incentive on Transmission System Availability, Penalty on under-achievement of transmission loss target and Carrying cost on Previous years, the summary of the Net Revenue Requirement for Transmission Business, SLDC Business and overall business of PSTCL for FY 2020-21 is shown in the following tables:

**Table 75: Annual Revenue Requirement for Transmission Business for FY 2020-21**

(Rs. Crore)					
Sr. No	Particulars	Approved in Tariff Order for FY 2020-21	Approved by the Commission in the Review of FY 2020-21	Claimed by PSTCL in the true up of FY 2020-21	Approved by the Commission
1.	<b>Total ARR</b>	<b>1329.39</b>	<b>1312.50</b>	<b>1345.32</b>	<b>1338.53</b>
2.	Add: Incentive on Transmission System Availability	-	-	9.88	9.80
3.	Less: Penalty on under-achievement of Transmission Loss target	-	-	-	2.78
4.	Less: Carrying Cost of Previous Years	1.01	1.01	1.01	1.01
5.	<b>Net ARR</b>	<b>1328.38</b>	<b>1311.49</b>	<b>1354.20</b>	<b>1344.54</b>

**Table 76: Annual Revenue Requirement for SLDC Business for FY 2020-21**

(Rs. Crore)					
Sr. No	Particulars	Approved in Tariff Order for FY 2020-21	Approved by the Commission in the Review of FY 2020-21	Claimed by PSTCL in the true up of FY 2020-21	Approved by the Commission
1.	<b>Net ARR</b>	<b>16.90</b>	<b>21.56</b>	<b>19.79</b>	<b>22.98</b>

2.20.2 The summary of the Annual Revenue Requirement of PSTCL for FY 2020-21 is as under:

**Table 77: Annual Revenue Requirement for PSTCL for FY 2020-21**

(Rs. Crore)					
Sr. No.	Particulars	Approved in Tariff Order for FY 2020-21	Approved by the Commission in the Review of FY 2020-21	Claimed by PSTCL in the true up of FY 2020-21	Approved by the Commission
1	<b>Total ARR</b>	<b>1346.29</b>	<b>1334.06</b>	<b>1365.11</b>	<b>1361.51</b>
2	Add: Incentive		0.00	9.88	9.80
3	Less: Penalty on under-achievement of Transmission Loss target	-	-	-	2.78
4	Less: Carrying Cost of Previous Years	1.01	1.01	1.01	1.01
5	<b>Net ARR</b>	<b>1345.28</b>	<b>1333.05</b>	<b>1373.99</b>	<b>1367.52</b>

# Chapter 3

## Annual Performance Review of FY 2021-22 and Revised Estimates for FY 2022-23

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### 3.1 Background

In accordance with the provisions of PSERC MYT Regulations, 2019, the Commission had approved the Annual Revenue Requirement (ARR) of PSTCL for FY 2021-22 and FY 2022-23 in its Tariff Order dated 01.06.2020, which was based on expenditure and revenue estimates of PSTCL for its Transmission and SLDC Businesses. The Commission further determined the revised estimates of ARR for FY 2021-22 in Tariff Order dated 28.05.2021. In the current Petition, PSTCL has projected the Annual Performance Review (APR) for FY 2021-22 and Revised Estimates for FY 2022-23, separately for its Transmission business and SLDC business. The Commission has analyzed the same in this chapter.

### 3.2 Transmission System Availability

#### PSTCL's Submission:

**3.2.1** PSTCL has submitted its average transmission system availability from April to September 2021 (H1), calculated based on month-wise system availability up to September 2021, as under:

**Table 78: Transmission System (TS) Availability of PSTCL for FY 2021-22**

Sr. No.	Month	TS Availability (%)
1.	April-21	99.6328%
2.	May-21	99.6729%
3.	June-21	99.8274%
4.	July-21	99.9070%
5.	August-21	99.9360%
6.	September-21	99.8874%

**3.2.2** PSTCL has further submitted that it has maintained the Transmission System Availability well above the normative Annual Transmission Availability Factor of 98.5% up to September 2021, as mandated by PSERC Tariff Regulations, 2019.

### Commission's Analysis:

3.2.3 The Commission has taken note of the submission of PSTCL and shall consider its actual Transmission System Availability for FY 2021-22 and FY 2022-23 for incentive, if permissible as per PSERC MYT Regulations, 2019 at the time of true up for the respective years.

### 3.3 Transmission Loss

3.3.1 The Commission, in the MYT Order for 2<sup>nd</sup> Control Period, had provisionally projected the transmission loss of 2.46% for FY 2021-22 and 2.44% for FY 2022-23.

### PSTCL's Submission:

3.3.2 PSTCL has submitted the transmission loss for the period from April 2021 to September 2021 in the ARR Petition as under:

**Table 79: Transmission Loss submitted by PSTCL**

Sr. No.	Month	Transmission Loss (%)
1	Apr-21	2.45%
2	May-21	2.15%
3	Jun-21	2.06%
4	Jul-21	2.02%
5	Aug-21	2.21%
6	Sep-21	2.35%
7	<b>Cumulative Loss of H1</b>	<b>2.18%</b>

3.3.3 PSTCL has submitted that the actual transmission loss of H1 of FY 2021-22 is lower than the transmission loss approved by the Commission for FY 2021-22. PSTCL has therefore requested the Commission to retain the loss level of 2.46% for FY 2021-22 as approved in the MYT Order. Similarly, PSTCL has requested the Commission to approve transmission loss of 2.44% for FY 2022-23 as approved in the MYT Order dated 01.06.2020.

### Commission's Analysis:

3.3.4 The Commission observes that the actual Transmission loss reported by PSTCL till September of FY 2021-22 is coming to 2.18%. Since losses in the lean months (Jan-March) are observed to be comparatively higher, the Commission **decides to retain the transmission loss level at 2.46% and 2.44% for FY 2021-22 and FY 2022-23** respectively as approved in the MYT Order. The transmission losses

for FY 2021-22 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 and Capital Works in Progress

#### PSTCL's Submission:

3.4.1 PSTCL has submitted that it has revised the projections of the Capital Expenditure and Capitalization for FY 2021-22 and FY 2022-23 according to actual planned expenditure in these years. Accordingly, PSTCL has revised capital expenditure for FY 2021-22 and FY 2022-23 as below:

**Table 80: Revised Capital Expenditure submitted by PSTCL for FY 2021-22 and FY 2022-23**

Particulars	(Rs. Crore)	
	Projected by PSTCL	
	FY 2021-22	FY 2022-23
Transmission Business	437.56	608.89
SLDC Business	12.24	19.92
Total Capital Investment	449.79	628.81

3.4.2 PSTCL has further submitted that the Board of Directors of PSPCL in its 88<sup>th</sup> meeting held on 26.01.2021 accorded approval to transfer 220/132 KV substation of GNDTP Bathinda to PSTCL. The depreciated value of all items for transfer comes out to be Rs. 26.27 Crore including GST at 18%. In view of the above transfer of substation, PSPTCL has added a total of Rs. 26.27 Crore to GFA addition during FY 2021-22. The CWIP, Capital Expenditure and Capitalisation proposed by PSTCL for FY 2021-22 and FY 2022-23 are shown in the following tables:

**Table 81: Details of CWIP, Capital Expenditure and Capitalization submitted by PSTCL for FY 2021-22 and FY 2022-23**

(Rs. Crore)

Sr. No.	Particulars	FY 2021-22	FY 2022-23
	<b>Transmission</b>		
<b>1</b>	<b>Opening WIP</b>	<b>301.48</b>	<b>281.12</b>
a	Spill over Schemes	290.79	185.85
b	New Schemes	10.69	95.27
<b>2</b>	<b>Capital Expenditure</b>	<b>437.56</b>	<b>608.89</b>
a	Spill over Schemes	279.91	288.81
b	New Schemes	157.65	320.08
<b>3</b>	<b>Capitalisation</b>	<b>457.92</b>	<b>620.80</b>
a	Spill over Schemes	384.84	386.23
b	New Schemes	73.07	234.58
<b>4</b>	<b>Closing WIP</b>	<b>281.12</b>	<b>269.20</b>
a	Spill over Schemes	185.85	88.43
b	New Schemes	95.27	180.77
	<b>SLDC</b>		
<b>5</b>	<b>Opening WIP</b>	<b>1.46</b>	<b>10.41</b>
a	Spill over Schemes	1.46	0.09
b	New Schemes	-	10.32
<b>6</b>	<b>Capital Expenditure</b>	<b>12.24</b>	<b>19.92</b>
a	Spill over Schemes	0.45	0.25
b	New Schemes	11.79	19.67
<b>7</b>	<b>Capitalisation</b>	<b>3.29</b>	<b>29.24</b>
a	Spill over Schemes	1.82	0.25
b	New Schemes	1.47	28.99
<b>8</b>	<b>Closing WIP</b>	<b>10.41</b>	<b>1.09</b>
a	Spill over Schemes	0.09	0.09
b	New Schemes	10.32	1.00

**Commission's Analysis:**

**3.4.3** The Commission *vide Order dated 3.12.2019 for 2<sup>nd</sup> Capital Investment Plan (CIP) in Petition No. 19 of 2019 had approved the Capital Investment Plan of Rs. 636.14 Crore and Rs. 563.62 Crore including IDC and IEDC for FY 2021-22 and FY 2022-23 respectively.* The Commission had approved the following list of works for PSTCL in the Capital Investment Plan dated 3.12.2019:

- 1) Capital Investment for Schemes approved in 1st Control Period
- 2) Capital Investment for Schemes approved by Board in FY 2019-20 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

**3.4.4** In the Tariff Order for FY 2020-21 dated 1.6.2020, the Commission capped the Capital Expenditure (inclusive of IEDC and IDC) of PSTCL to Rs. 400 Crore each during FY 2021-22 and FY 2022-23. In the Tariff Order for FY 2021-22 dated 28.5.2021, the Commission provisionally retained the Capital Expenditure (inclusive of IEDC and IDC) of Rs. 400 Crore for FY 2021-22. PSTCL was given the liberty to prioritize the approved schemes within the approved limit.

**3.4.5** The Commission directed PSTCL to submit the details of any other works submitted in the petition. PSTCL vide letter No. 112/CAO(F&A)/APR-1 dated 09.02.2022 submitted that PSTCL has inadvertently included contributory works, works already approved in 2<sup>nd</sup> MYT Control Period, etc. In replies to queries asked by the Commission during the meeting with PSERC conducted on 11.2.2022 and 28.02.2022, PSTCL, vide email dated 15.02.2021 and 02.03.2022, has submitted the revised Capital Expenditure incurred in FY 2021-22 and FY 2022-23 as under:

**Table 82: Revised Capital expenditure as submitted by PSTCL for FY 2021-22**

(Rs. Crore)

Sr. No.	Description	Transmission	SLDC	PSTCL
	<b>Capital Expenditure on Spillover schemes during FY 2020-21</b>			
1a	Contributory works and Works under PSDF Scheme	59.23	0.00	59.23
1b	Others	214.39	0.45	214.84
<b>1</b>	<b>Total Capital Expenditure on Spillover schemes</b>	<b>273.62</b>	<b>0.45</b>	<b>274.07</b>
<b>2</b>	<b>Total Capital Expenditure on New schemes</b>	<b>163.28</b>	<b>11.79</b>	<b>175.07</b>
<b>3</b>	<b>Total Capital Expenditure during FY 2020-21 (1+2)</b>	<b>436.90</b>	<b>12.24</b>	<b>449.14</b>
4	Add: Capital Expenditure towards HR, IT, S&D and miscellaneous works	0.65	0.00	0.65
<b>5</b>	<b>Total Capital Expenditure (3+4)</b>	<b>437.55</b>	<b>12.24</b>	<b>449.79</b>



**Table 83: Revised Capital expenditure as submitted by PSTCL for FY 2022-23**

(Rs. Crore)

Sr. No.	Description	Transmission	SLDC	PSTCL
	<b>Capital Expenditure on Spillover schemes during FY 2020-21</b>			
1a	Contributory works and Works under PSDF Scheme	32.09	0.00	32.09
1b	Others	249.23	0.25	249.48
<b>1</b>	<b>Total Capital Expenditure on Spillover schemes</b>	<b>281.32</b>	<b>0.25</b>	<b>281.57</b>
<b>2</b>	<b>Total Capital Expenditure on New schemes</b>	<b>326.92</b>	<b>19.67</b>	<b>346.59</b>
<b>3</b>	<b>Total Capital Expenditure during FY 2020-21 (1+2)</b>	<b>608.24</b>	<b>19.92</b>	<b>628.16</b>
4	Add: Capital Expenditure towards HR, IT, S&D and miscellaneous works	0.65	0.00	0.65
<b>5</b>	<b>Total Capital Expenditure (3+4)</b>	<b>608.89</b>	<b>19.92</b>	<b>628.81</b>

**3.4.6** The Commission observes that PSTCL has claimed capital expenditure of Rs. 0.65 Crore towards HR, IT, S&D and miscellaneous works for FY 2021-22 and FY 2022-23. Since, these expenditures are not part of the approved capital investment plan, the Commission disallows the same.

**3.4.7** The details of the Capital Expenditure approved are as under:

**Table 84: Capital Expenditure approved by the Commission for FY 2021-22 and FY 2022-23**

(Rs. Crore)

Sr. No.	Particulars	FY 2021-22	FY 2022-23
<b>1</b>	<b>Transmission</b>	<b>436.90</b>	<b>608.24</b>
a	Spill over Schemes	273.62	281.32
b	New Schemes	163.28	326.92
<b>2</b>	<b>SLDC</b>	<b>12.24</b>	<b>19.92</b>
a	Spill over Schemes	0.45	0.25
b	New Schemes	11.79	19.67
<b>3</b>	<b>PSTCL</b>	<b>449.14</b>	<b>628.16</b>

**3.4.8** The Opening CWIP for FY 2021-22 is considered as Rs. 354.36 Crore for Transmission Business and Rs. 1.44 Crore for SLDC Business from the Closing CWIP for True Up of FY 2020-21 as approved in para 2.5.9 of this Tariff Order. The Commission notes that the Capital expenditure for FY 2021-22 and FY 2022-

23 against the approved schemes is Rs. 449.14 Crore and Rs. 628.16 Crore respectively.

**3.4.9** The Commission has approved capitalization of Rs. 460.55 Crore for FY 2021-22 after disallowing the capitalization of Rs. 0.65 Crore claimed towards HR, IT, S&D and miscellaneous works and Rs. 679.29 Crore for and FY 2022-23 respectively as submitted by PSTCL vide reply dated 12.02.2022. The details are as under:

**Table 85: Capitalization approved by the Commission for FY 2021-22**

(Rs. Crore)

Sr. No.	Particulars	Approved by the Commission for FY 2021-22		Approved by the Commission for FY 2022-23	
		Capital Expenditure	Capitalization	Capital Expenditure	Capitalization
<b>1</b>	<b>Transmission</b>	<b>436.90</b>	<b>457.26</b>	<b>608.24</b>	<b>650.05</b>
a	Spill over Schemes	273.62	358.17	281.32	384.11
b	New Schemes	163.28	99.09	326.92	265.94
<b>2</b>	<b>SLDC</b>	<b>12.24</b>	<b>3.29</b>	19.92	<b>29.24</b>
a	Spill over Schemes	0.45	1.82	0.25	0.25
b	New Schemes	11.79	1.47	19.67	28.99
<b>3</b>	<b>PSTCL</b>	<b>449.14</b>	<b>460.55</b>	<b>628.81</b>	<b>679.29</b>

**3.4.10** The details for Capital Works in Progress approved by the Commission for Transmission and SLDC Business for FY 2021-22 and FY 2022-23 are as under:

**Table 86: Capital Works in Progress approved by the Commission for FY 2021-22 and FY 2022-23**

(Rs. Crore)

Sr. No.	Particulars	FY 2021-22	FY 2022-23
	<b>Transmission</b>		
<b>1</b>	<b>Opening CWIP</b>	<b>354.36</b>	<b>334.00</b>
<b>2</b>	<b>Capital Expenditure</b>	<b>436.90</b>	<b>608.24</b>
a	Spill over Schemes	273.62	281.32
b	New Schemes	163.28	326.92
<b>3</b>	<b>Capitalisation</b>	<b>457.26</b>	<b>650.05</b>
a	Spill over Schemes	358.17	384.11
b	New Schemes	99.09	265.94

(Rs. Crore)

Sr. No.	Particulars	FY 2021-22	FY 2022-23
4	<b>Closing WIP</b>	<b>334.00</b>	<b>292.19</b>
	<b>SLDC</b>		
5	<b>Opening WIP</b>	<b>1.44</b>	<b>10.39</b>
6	<b>Capital Expenditure</b>	<b>12.24</b>	<b>19.92</b>
a	Spill over Schemes	0.45	0.25
b	New Schemes	11.79	19.67
7	<b>Capitalisation</b>	<b>3.29</b>	<b>29.24</b>
a	Spill over Schemes	1.82	0.25
b	New Schemes	1.47	28.99
8	<b>Closing WIP</b>	<b>10.39</b>	<b>1.07</b>

### 3.5 Funding of Capital Expenditure

#### PSTCL's Submission:

3.5.1 PSTCL has submitted its funding plan for spillover and new schemes for FY 2021-22 and FY 2022-23 as follows:

**Table 87: Funding of Capital Expenditure and Capitalization for FY 2021-22 and FY 2022-23 as submitted by PSTCL**

(Rs. Crore)

Sr. No.	Particulars	FY 2021-22	FY 2022-23
<b>A</b>	<b>Transmission</b>		
1	CAPEX of Spill over Schemes	279.91	288.81
2	Capitalization of New Schemes	73.07	234.58
3	Total CAPEX for Funding	352.98	523.38
4	Funding through Grant	57.57	27.79
5	Funding through Loan	295.41	495.59
<b>B</b>	<b>SLDC</b>		
1	CAPEX of Spill over Schemes	0.45	0.25
2	Capitalization of New Schemes	1.47	28.99
3	Total CAPEX for Funding	1.92	29.24
4	Funding through Loan	1.92	29.24