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To

Registrar,
Punjab State Electricity Regulatory Commission,
Site No. 3, Sector 18-A, Madhya Marg,
Chandigarh. Pincode-160018.
Tel No. 0172-2861800

Memo No. 842 / CAO/F&A/Comml./CIP- 3rd
Dated: 21/09/2022

Subject: **Interim Order in Petition No. 50 of 2022 (Approval of PSTCL's Business Plan including Capital Investment Plan for MYT Control Period (FY 2023-24 TO FY 2025-26) under Regulation 9 of PSERC (Terms and Conditions of Determination of Generation, Transmission, Wheeling and Retail Supply Tariff) Regulations, 2019).**

Please refer to your office email dated 09.09.2022 vide which Interim Order dated 06.09.2022 on above cited subject was sent.

In this regard, additional information/clarifications as desired by the Commission are attached herewith for the kind consideration of the Hon'ble PSERC.

DA/As above(12 copies)

CAO/Finance & Audit,
PSTCL, Patiala.

PSTCL Business Plan and Capital Investment Plan for 3rd Control Period- Additional information/clarification

1. **PSTCL to submit the scheme wise data in excel format**

   PSTCL Reply: Scheme wise data is enclosed in CD attached, moreover the same has also been sent via email dated 22.09.2022.

2. **Regulation 9.4 of the MYT Tariff Regulations, 2019 specifies that the business plan of the transmission business should include the following:**

   "(a) Future plans of the company including efficiency improvement measures proposed to be introduced and technical requirement such as meeting reactive power requirements;

   (b) Plan for reduction in transmission losses;

   (c) Plan for improvement in quality of transmission service and reliability, metering arrangements and any other new measure to be initiated by the Licensee, e.g. automation, IT initiatives etc.;

   (d) Capital Investment Plan based on the above;

   (e) Man Power Plan."

   It is observed that the Business Plan submitted by PSTCL for its Transmission and SLDC business does not contain Future plans, Loss Reduction Plan, Man Power Plan etc. PSTCL is required to submit the details of various components of the business plan in line with the above Regulation.

   PSTCL Reply: It is only after consideration of all the points above, that PSTCL has framed its extensive capital expenditure requirements. The said CIP gives timelines for completion of spill-over schemes. Apart from the above, PSTCL has given its entire philosophy/considerations of future load growth in the state, intrastate generation capacity and requirement of power to be procured from interstate generating stations. Keeping the above in mind, PSTCL has undertaken load flow studies, wherein system constraints have been identified and augmentation/strengthening/upgradation has been proposed appropriately in due consideration of technical standards prescribed by CEA/Honourable PSERC. The load flow simulation results had already been enclosed as the part of main submission.

   So far, as some of the specific elements are concerned, PSTCL submits the following:

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a. *Future plans of the company including efficiency improvement measure proposed to be introduced and technical requirement such as meeting reactive power requirements*: In line with the CPRI report on assessment of capacitor requirement in Northern region for year 2019-20 issued in March 2022, PSTCL is studying to install capacitor banks at its various substations detailed out in the report. The work has been included as under study in the proposed CIP plan 2023–26. Upon finalizing the install locations, PSTCL will propose the schemes and submit the same for kind consideration by the honourable commission. The CPRI report is enclosed as **Annexure – 1**.

b. *Plan for reduction in transmission losses*: Transmission losses of PSTCL are 2.31% against all India average of 2.31%. In case pursuant to development of the proposed network in case the need for undertaking such measures, PSTCL shall submit such schemes in its subsequent petitions.

c. *Plan for improvement in quality of transmission service and reliability, metering arrangements and any other new measure to be initiated by the Licensee e.g. automation, IT initiatives etc.*: PSTCL has already employed substation automation technology and RHMI (Remote Human Machine Interface) at two of its 400 kV substations (Dhuri and Rajpura), wherein the operation and control of 400 kV substation Dhuri is being carried out at Rajpura and the staff in shift duty at 400 kV substation has been reduced. RHMI of 3 Nos. PSTCL substations Nakodar, Makhu and Muktsar is proposed in the MYT (Annexure-B, Sr. No. 3).Automation of two substations (namely 220 kV Budhlada and Gurdaspur) is in tendering stage and automation of remaining 220 kV substations is already in the spill-over works list (Appendix-B (Spill Over), Sr. No. 72 (*90 Nos. PSTCL grids (220 kV) to be provided with SAS. Report already sent for PSDF funding, if approved, these stations will be upgraded.*)). However, these capital plans have been linked with PSDF funding at this moment. In addition, improvement in metering arrangement for all interface points is being carried out under SAMAST project through which existing energy meters will be replaced with Advanced Metering Infrastructure (AMI) for remote metering of all interface points. The project is expected to be completed in 2023-24. The major ongoing projects of SLDC are related to Implementation of SAMAST scheme and installation of RTUs

which are covered under spillover of 2nd MYT Control Period. Major future projects of SLDC are related to upgradation of SCADA system under ULDC Phase-III, the modalities of which are under discussion stage being held with MoP/FOLD with all Northern States. This project is to be implemented by CTU through PGCIL and will be covered under Capital works only if proposal of execution through Tariff mode is rejected. Other future projects are related to improving Cyber Security posture of SLDC, which may involve purchase of IT Hardware/Software for Cyber Security and/or establishment of complete Security Operation Centre(SOC), which are tentative works that may have to be carried out as per specific instructions of central agencies like NLDC, NCIIPC, CERT-IN etc. As Cyber security guidelines are still in nascent stage, the plan for the same shall be devised based on projects undertaken by central agencies like NLDC, NRLDC etc. However, Capital provisioning for the same has been kept in proposed MYT plan for 3rd Control Period.

d. *Capital Investment Plan based on the above*: Appendix-C (New Works), Sr. No. 25 *(Requirement of Capacitor bank at various S/Stns as per CPRI report.)*. Appendix-B (Spill Over), Sr. No. 72 (*90 Nos. PSTCL grids (220 kV) to be provided with SAS. DPR is under submission for PSDF funding)*. Appendix-D (SLDC List).

e. *Man Power Plan*: PSTCL submits that it has provided detailed submission on its manpower requirements in section 5.3.7 (Human Resource Development) in its original submission. In the said section, PSTCL has elaborated on the future manpower requirement together with envisaged retirements. The same may kindly be referred by the Hon'ble Commission.

3. **PSTCL has not submitted the Detailed Project Reports (DPRs) of the various schemes/ works included in the CIP as per Regulation 9.8 of the MYT Tariff Regulations, 2019 which specifies as under:**

"9.8 *The Applicant shall submit the Detailed Project Reports (DPRs) for all the schemes as per Part (a) and (b) above which shall include:*

(a) Purpose of investment;

(b) Broad Technical Specifications of the proposed investment and supporting details;

(c) Capital Structure;

(d) Capitalization Schedule;

(e) Financing Plan, including identified sources of investment:

(f) Physical targets;

(g) Cost-benefit analysis;

(h) Prioritization of proposed Investments:

Provided that DPRs will not be necessary for schemes under Rs 10 Crore for Generation and Transmission Businesses. Rs 5 Crore for Distribution Business and Rs. 1 Crore for SLDC:

Provided further that the total capital expenditure on non-DPR schemes in any year should not exceed 20% of that for DPR schemes during that year."

PSTCL Reply:

PSTCL submits that the envisaged capital expenditure is proposed to be funded through borrowings from financial institutions. Such institution mandatorily requires submission of DPR for the proposed schemes.

3 Nos. DPRs for the new transmission works are enclosed as **Annexure–2 to 4.**
2 No. DPRs for SLDC works are enclosed as **Annexure- 4A and 4B.**
1 No. DPR for PSDF funding works (for SAS) is enclosed as **Annexure – 5.**

DPRs for remaining works shall be submitted subsequently.

Note:- DPR for Extension of control-room building at SLDC cannot be created at this stage as it is linked with ULDC Phase-III, as such DPR will be drafted after modalities of ULDC Phase-III are finalized by PGCIL.DPR for new work i.e. "Purchase of IT equipment/software as per instructions of central agencies like NLDC, NCIIPC, CERT-IN, for cyber security etc. or any other unforeseen SLDC related works (i.e. for RTU, IT, SAMAST, etc.)"shall be formulated based on instructions of central agencies. As adoption of Cyber security guidelines at Central & State level are still in nascent stage, the DPR for this project shall be drafted based on projects undertaken by central agencies like NLDC, NRLDC etc. in the near future. DPRs for other SLDC works have already been submitted.

4. **Regulation 9.18 of the MYT Tariff Regulations, 2019 provides as under**

"The STU shall also provide a copy of its capital investment plan to the Distribution Licensee, at the time of filing of this plan with the Commission. The copy of approved capital investment plan shall also be sent to the Distribution Licensee by the STU, immediately after approval by the Commission"

PSTCL to submit the documentary evidence of compliance of the above Regulation.

PSTCL Reply: The Business plan has been shared with PSPCL vide Memo No.813 dated 09.09.2022 copy of the same is enclosed as **Annexure-12**.

5. **PSTCL has submitted that its actual transmission loss was 2.31% in FY 2021-22. However, a higher transmission loss i.e. 2.50% has been projected for all the years of the 3rd Control Period despite the substantial capital expenditure being proposed during the same period. This needs to be explained.**

PSTCL Reply: The actual PSTCL Transmission losses for FY 2021-2022 are calculated as 2.31%. Presently, the PSTCL transmission losses are being calculated based upon manual/downloaded data of energy meters.

SLDC is in process of implementation of SAMAST project. In SAMAST project, all the existing energy meters are to be replaced with new energy meters. The meter data will be received from all grid/substations through AMR system. Further, this data will be integrated in the software being developed by the firm and software-based calculation/checking of data will be done leading to reduced manual intervention. There will also be some minor variation in calculations after SAMAST implementation.

Apart from above, additional transmission elements i.e. transmission lines/transformers and other elements will be added in coming years thereby increasing the installed MVA capacity of PSTCL system which may add in transmission losses during lean period. The direction of power flow in PSTCL system along with the outage elements/ loaded elements/lightly loaded transmission elements of future years cannot be ascertained presently so there can be some deviations in PSTCL transmission losses. Keeping in view of the above, proposed transmission loss trajectory is detailed as under:

Particulars	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Transmission losses (%)	2.50%	2.50%	2.50%	2.50%

6. **PSTCL to submit a Transmission Map updated for 2022 along with single line diagram, having distinct colour coded representation for existing. overloaded and proposed transmission network**

PSTCL Reply: Transmission Map with distinct colour coding for different voltage level elements and updated till May 2022 is enclosed as **Annexure – 6**. Transmission map for proposed network is under preparation and will be submitted subsequently.

7. **PSTCL in its Petition has submitted CIP of Rs. 1274.26 Crore (new works Rs. 308.29 Crore+ spillover Rs. 965.97 Crore), Rs. 1140.61 Crore (new works Rs. 580.57 Crore+ spillover Rs 560.04 Crore) and Rs. 850.47 Crore (new works Rs.681.41 Crore+ spillover Rs.169.06 Crore) for FY 2023-24, FY2024-25 and FY2025-26 respectively for its transmission & SLDC business which is not commensurate with its CIP for the 2nd Control Period. Substantial capital expenditure proposed under new schemes during the 3rd Control Period while the spillover and deferred schemes from the 1st & 2nd Control Period are still pending; PSTCL to provide justification for the same along with year wise capital expenditure made during last 5 years.**

PSTCL Reply: PSTCL submits that in the current CIP the spillover schemes from previous CIP are getting implemented across the MYT period i.e. FY 23 to FY 26. The cumulative outlay on such schemes is around Rs. 1,695.07 crores. For new schemes the capital investment is Rs. 1570.27crores during the Control period. Besides the rationale for proposed capital expenditure, the works have been planned to increase the MVA capacity which will further enhance the ATC/TTC limits and load growth/load projections and the resultant capital outlay has been balanced in 3 years. The increase in capital outlay is due to the fact that the transmission system which was created at 400 kV level has been fully utilized to the installed capacity in the past years due to unprecedented increase in demand of the state post COVID-19

and now there is hardly any margin in the transmission system. The details of the year wise capital expenditure made during last 5 years are enclosed as **Annexure-** 7.

8. **PSTCL to submit detailed technical justification along with cost benefit analysis for capital expenditure proposed in respect of network addition, system strengthening and system augmentation, with details of existing network capacity (as on March 2022) and network capacity projected to be achieved by the end of 3rd Control Period.**

PSTCL Reply: Technical justification for the spill-over works has already been provided to PSERC during the submission of Capital Investment Plan for MYT 2020-23. Similarly, technical justification for the new works included in the Capital Investment Plan for the MYT 2023-26 has also been provided during its submission. The details of the existing network capacity are as follows:

Voltage level	MVA capacity (ending March 2022)	Circuit km (ending March 2022)
400 kV	5390	1599.754
220 kV	29981.5	7880.135
132 kV	4335.67	3098.039

The details of the network capacity projected to be achieved by the end of 3rd Control Period (2023 - 26) are as follows:

Voltage level	MVA capacity (by the end of 3rd CP)	Circuit km (by the end of 3rd CP)
400 kV	9390	1701.754
220 kV	36729	9184.215
132 kV	4757.67	3307.539

9. **For spillover schemes, PSTCL has projected an expenditure higher than the scheme costs. PSTCL to provide details scheme wise with respect to actual project cost, actual cost incurred during 1st & 2nd control period and projected expenditure during 3rd control period. Scheme-wise justifications for delay and spillover be provided along with reasons/ bottlenecks for consistent delay of schemes started from 1st Control Period onwards along with rationale for excess expenditure.**

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PSTCL Reply: PSTCL submits that MYT plan for FY 2017-20 did not include the IDC and EC attributed to Capital works. The CIP proposed in this petition includes the envisaged outlay on IDC and EC. For transmission schemes, besides the technical studies and approvals for implementation the major issue is towards acquiring the right-of-way for development of transmission lines. Delay in development of such lines is therefore a known phenomenon to all the developers including PGCIL which has the largest network in the country. Besides the above, selection of suppliers and establishment of reasonability of their quotes increase the lead time in initialization of the projects. The scheme-wise justifications for delay and spillover has already been provided and the reason for excess expenditure is attached as **Annexure-8**.

10. **PSTCL to provide scheme-wise technical and financial justification for each new scheme proposed along with schemes completion dates and any spillover expenditure for proposed new schemes beyond 3rd Control period.**

PSTCL Reply: Technical justifications for all the works have already been provided. Financial justification (Cost Benefit Analysis) has been included in the submitted DPRs for the new transmission works. The spillover expenditure for proposed new schemes beyond 3rd control period is approx. Rs. 527.33 Crore (CWIP).

11. **PSTCL has considered EC @15% and IDC @ 4% in the 3rd Control Period. PSTCL to submit the rationale and detailed calculation along with documentary evidence to substantiate its claim.**

PSTCL Reply: The estimated amount of EC &IDC during the 3rd control period is tentative. The actual EC & IDC incurred will be submitted subsequently at the time of True up submission.

12. **PSTCL to submit bifurcation of spillover works and new works for the capital investment plan proposed for its SLDC business, in line with Regulation 9.7 of the MYT Tariff Regulations, 2019.**

PSTCL Reply: Bifurcation of spillover works and new works for SLDC is already submitted and is again enclosed as **Annexure-9**.

13. **PSTCL to submit actual scheme-wise capital expenditure from FY 2020-21 to FY 2021-22 and projected capital expenditure for FY 2022-23 for Transmission & SLDC works, Further, PSTCL to also provide the proportion of Govt. grants and consumer contribution received.**

PSTCL Reply: Actual scheme wise Capital expenditure for FY 2020-21, 2021-22 and projected expenditure for FY 2022-23 are enclosed as Annexure-10. PSTCL submits that no contributory work is included in the 3rd Control Period. The works being carried out with central grant under PSDF are listed at CIP nos. 172 – 175 and 180 of Table-11; 71, 72, 74 and 87 of Table-17; 7 of Table-22. As and when central funds are received and works are completed, complete details of funds and capitalization shall be submitted to the Hon'ble commission with the True-up. Likewise the details of contributory works shall also be submitted with the True-up.

14. **PSTCL is required to intimate the strategy for utilization of the dismantled transformers etc. where it has proposed augmentation along with details when installed & now proposed to be dismantled and cost of transformers so dismantled.**

PSTCL Reply: Transformer augmentation is purely based on the maximum demand recorded at any substation or as per requirement on real time basis. Augmentation is also undertaken in case a new connection is applied requiring augmentation of the system. All transformers which are dismantled shall be used within the system. The transformer to be dismantled is identified on case to case basis at the time of actual augmentation of the transformer. The depreciated value of the transformer so identified to be dismantled shall be calculated at the time of dismantlement and details of all such transformers shall be submitted subsequently at the time of True up submission.

15. **For schemes over Rs. 50 Crore, PSTCL has sought exemption from execution of project through TBCB (Tariff based Competitive Bidding) by quoting reference of MoP letter dated 15.03.2021 However, the letter strongly recommends to adopt TBCB for development of intra state transmission system in larger interest of consumers. PSTCL is required to clarify.**

PSTCL Reply: All the new works of tentative cost more than Rs 50 Crore involve upgradation of 66kV/132/220kV substations to 220/400 kV level within the pre-

owned land of existing networks of PSPCL/PSTCL and the transmission lines connecting these new substations are LILO of existing transmission lines and hence are only technical upgradations specific to the need of the areas of Punjab State and are Brown Field projects. Therefore, all these projects do not fall under the ambit of TBCB mode as per exemption stated in clause 7.1(7) of revised tariff policy issued by Govt. of India in January 2016 read with Govt. of India, Ministry of Power memo no. 15/2/2017-Trans-Pt(1) dated 15.03.2021 (**Annexure-11**).

16. **PSTCL to submit the following:**

a. **Annual Audited accounts from FY 2021-22.**

PSTCL Reply: Annual Audited accounts from FY 2021-22 are placed in the enclosed CD.

b. **A breakup of scheme-wise financing plan i.e., the breakup between debt, equity, Govt. grants and consumer contribution for each of the ongoing/ spillover/deferred and new schemes;**

PSTCL Reply: PSTCL submits that no contributory work is included in the 3rd Control Period. Complete details of funds and capitalization of the works to be carried out with central grant under PSDF shall be submitted to the Hon'ble commission with the true-up.

c. **Actual Government grants received (if any) for the ongoing/ spillover schemes (as on March 2022) and an estimate of Government grants expected to be received from FY 2023-24 to FY 2025-26;**

PSTCL Reply: PSTCL submits that no contributory work is included in the 3rd Control Period. Complete details of funds and capitalization of the works to be carried out with central grant under PSDF shall be submitted to the Hon'ble commission with the true-up.

d. **Summary sheet of capital expenditure and capitalization showing the cost, employee cost, IDC.**

PSTCL Reply: Summary of capital expenditure and capitalization showing the cost, employee cost, IDC is as under:

CIP proposed for 3rd Control Period (Total Schemes)							(Rs. Crore)
Sr No.	Particulars	FY 2023-24	FY 2024-25	FY 2025-26	FY 2023-24	FY 2024-25	FY 2025-26
		Capital Expenditure			Capitalization		
	Transmission						
1	Works Cost	1045.64	944.95	716.58	1012.24	694.06	873.14
2	Employee Cost	169.28	147.99	105.06	176.34	114.96	129.80
3	IDC	59.34	47.68	28.83	69.29	42.57	36.87
4	**Total**	**1274.26**	**1140.62**	**850.47**	**1257.87**	**851.59**	**1039.81**
	SLDC						
1	Works Cost	8.28	2.13	0.93	24.79	5.96	0.93
2	Employee Cost	0.00	0.00	0.00	0.00	0.00	0.00
3	IDC	0.00	0.00	0.00	0.00	0.03	0.00
4	**Total**	**8.28**	**2.13**	**0.93**	**24.79**	**5.99**	**0.93**
	PSTCL						
1	Works Cost	1053.92	947.08	717.51	1037.03	700.02	874.07
2	Employee Cost	169.28	147.99	105.06	176.34	114.96	129.80
3	IDC	59.34	47.68	28.83	69.29	42.60	36.87
4	**Total**	**1282.54**	**1142.75**	**851.40**	**1282.66**	**857.58**	**1040.74**

17. It is observed that the Business Plan submitted by PSTCL for its Transmission and SLDC business does not contain consumer contribution/Govt. grants if any, towards capital expenditure. PSTCL has projected the capital expenditure for Rs.1282.54 crore, Rs.1142.74 crore and 851.40 crore during the year FY 2023-24, FY 2024-25 and FY 2025-26 respectively, for Transmission and SLDC Business (Table-26). However, equity to be infused has been shown as Rs.133.80 crore, Rs 153.36 crore and Rs.175.61 crore for FY 2023-24, FY 2024-25 and FY 2025-26 respectively (Table No-27) and loan requirement shown is Rs.947.07 crore. Rs.738.77 crore and Rs.783.7 crore for FY 2023-24, FY 2024-25 and FY 2025-26 respectively (Transmission and SLDC business). The financing amount of equity and Loan does not tally with the projected capital expenditure. Hence,

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PSTCL to clarify how the equity amount has been derived clearly stating the receivable amount of consumer contribution/Govt grants.

PSTCL Reply: As per clause 4.5.8 of MYT Order for FY 2020-21dated 01.06.2020, the Hon'ble Commission has decided to fund the new schemes on Capitalization basis (schemes started after 01.04.2020) and fund the spill over schemes (i.e. schemes before 01.04.2020) on Capital expenditure basis. Therefore, although the Capital Expenditure for 3rd Control Period is Rs. 1282.54 crore, Rs. 1142.74 crore and Rs. 851.40 during FY 2023-24, 2024-25 & FY 2025-26 respectively, however, funding required is Rs. 1057.57 crore, Rs. 886.14 crore and Rs. 958.38 crore respectively considering Capital Expenditure for Spill over schemes and Capitalisation of New Schemes. Detailed Funding is shown as below:-

Funding Requirement for Capital Investment for 3rd Control Period **(Rs. Crore)**

Sr. No.	Particulars	FY 2023-24	FY 2024-25	FY 2025-26
A	**Transmission**			
1	CAPEX of Spill over Schemes from 1st Control Period (Excluding Contributory & PSDF)	196.31	80.96	61.57
2	Capitalization of New Schemes from 2nd Control Period and New Works for 3rd Control Period (Excluding Contributory & PSDF)	861.26	805.18	896.81
3	Directly Capitalised	0.00	0.00	0.00
4	Total funding for CAPEX	1057.57	886.14	958.38
4a	Funding through Equity (New Schemes) (As per Table – 27)	133.80	153.36	175.61
4b	Funding through Loan	923.77	732.78	782.77
5	**Total Capital Expenditure**	**1274.26**	**1140.61**	**850.47**
6	Total funding for CAPEX	1057.57	886.14	958.38
7(5-6)	Balance CAPEX of New Schemes (Not Capitalized yet/ Capitalized balance of previous years)	216.69	254.47	-107.91

B	SLDC			
1	CAPEX of Spill over Schemes from 1st Control Period (Excluding Contributory & PSDF)	0.78	0.40	0.00
2	Capitalization of New Schemes from 2nd Control Period and New Works for 3rd Control Period (Excluding Contributory & PSDF)	22.52	5.59	0.93
3	Directly Capitalised	0.00	0.00	0.00
4	Total funding for CAPEX	23.30	5.99	0.93
4a	Funding through Equity	0.00	0.00	0.00
4b	Funding through Loan	23.30	5.99	0.93
5	**Total Capital Expenditure**	**8.28**	**2.13**	**0.93**
6	Total funding for CAPEX	23.30	5.99	0.93
7(5-6)	CAPEX of New Schemes (Capitalized balance of previous years)	-15.02	-3.86	0

Further, during 3rd Control Period, Out of total fund requirement of Rs. 1057.87 crore, Rs. 886.14 crore and Rs. 958.38 crore respectively, funding through equity is the amount of ROE of previous year, which can be invested in current year e.g. ROE of FY 2022-23 is the equity invested/funding from equity during FY 2023-24. Calculation of ROE is as below:-

Calculation of Return on Equity (Rs Crore)

Sr. No.	Particulars	2021-22	2022-23	2023-24	2024-25	2025-26
1	Opening Equity for the year	726.36	803.92	922.52	1056.32	1209.68
2	Addition of Equity during the year	77.56	118.60	133.80	153.36	175.61
3	Closing Equity for the year	803.92	922.52	1056.32	1209.68	1385.29
4	Rate of RoE	15.50%	15.50%	15.50%	15.50%	15.50%
5	Return on Equity	118.60	133.80	153.36	175.61	201.11

18. It has also been observed that Rs.7.17 crore, Rs.2.96 crore and Rs 2.24 crore have been shown as the interest capitalization for FY 2023-24, FY 2024-25 and FY2025-26 respectively. PSTCL to clarify the basis on which interest capitalization has been worked out towards capital works.

Sudhir

PSTCL Reply: Capitalization of Interest during 3rd Control Period is based on actual figures of interest capitalized for FY 2021-22. During the FY 2021-22, total Capitalization of Interest amounting Rs. 11.70 crore is against Total Capital Expenditure of Rs. 321.40 crore. Relation between Interest Capitalized & Capital expenditure is 3.64% (11.70/321.40) for FY 2021-22.

During 3rd Control Period Capitalization of interest is considered only on Spill over works only, as Hon'ble Commission considers capital expenditure on Spill over schemes and Capitalization for new schemes for funding purpose. Therefore, Same 3.64% has been applied to the Capital Expenditure on Spill over works during 3rd Control Period to derive the figure of Interest Capitalized.

19. **PSTCL in table No. 33 has shown the payment of arrear of Pay to employees and Pensioners to the tune of Rs.202.02 crore and Rs 115.34 crore respectively during FY 2022-23. However, PSTCL in petition No.67 of 2021 has claimed Rs.55.72 crores (FY 2021-22) and Rs. 25.43 crore (FY 2022-23) (Table-89 & 90 page-76 of the Tariff Order dated 31.03 2022) towards Pay revision impact for PSTCL and SLDC. PSTCL to intimate the reasons/basis for such rise in pay revision arrears amounting to Rs.317.36 (202.02+115.34) crore payable in FY 2022-23 from Rs.25.43 crore.**

PSTCL Reply: Impact of Pay Revision claimed in petition no. 67 of 2021 amounting to Rs. 55.72 crore (FY 2021-22) and Rs. 25.43 crore (FY 2022-23) is on the account of Pay revision impact w.e.f 01.07.2021 i.e. from the date of implementation of Pay Commission report by GOP. However, in CIP & BP Petition for 3rd Control Period payment of arrear of Pay to employee and Pensioners amounting to Rs. 202.02 crore and Rs 115.34 crore respectively on account of Arrears of Pay Commission w.e.f 01.01.2016 to 30.06.2021. However will be paid only as per notification issued by the Government of Punjab regarding it.

Detail of works

Sr. No.	Particulars	Transmission						SLDC		
		TS		P&M		Total				
		No. of Works	Total Cost as per previous CIP (In Cr.)	No. of Works	Total Cost as per Previous CIP (In Cr.) *	No. of Works	Total Cost as per Previous CIP (In Cr.) *	No. of Works	Total Cost as per Previous CIP (In Cr.)	
1	**Works Envisaged in Previous CIP**									Appendix-A (Transmission Works)
	Works completed	42	140.116	8	17.52	50	157.636	-	-	
	Works to be completed by 31.03.2023	29	322.901	1	0.28	30	323.181	-	-	
	Works dropped/deleted/shifted	19	132.319	4	34.62	23	166.939	-	-	
	Total	90	595.336	13	52.42	**103**	**647.756**	-		Appendix-D (SLDC Works)
2	**Detail of works approved outside 2nd CIP**									
	Works completed	1	12.09	0	0	1	12.09	1	0.28	
	Works to be completed by 31.03.2023	3	95.773	1	0.45	4	96.223	0	0	
	Works dropped/deleted/shifted	1	6.3	0	0	1	6.3	0	0	
	Total	5	114.163	1	0.45	**6**	**114.613**	**1**	**0.28**	

Abstract of Capex of FY 2023-24 to 2025-26 (Transmission)						Total Cost (In Cr.)	
Sr. No.	Particulars	No. of Works	FY 2023-24	FY 2024-25	FY 2025-26		
1	Spill over works approved from previous CIP & Spill over works approved from previous control period approved outside CIP	**101**	965.97	560.04	169.06	**1,695.07**	Appendix-B (Transmission Works)
2	New Works for 3rd Control Period	**98**	308.29	580.57	681.41	**1,570.27**	Appendix-C (New Works)
	Total	**199**	1274.26	1140.61	850.47	**3,265.34**	

Abstract of Capex of FY 2023-24 to 2025-26 (for SLDC)						Total Cost (In Cr.)	
Sr. No.	Particulars	No. of Works	FY 2023-24	FY 2024-25	FY 2025-26		
1	Spill over works approved from previous CIP & Spill over works approved from previous control	**6**	7.78	1.63	0.43	**9.84**	Appendix-D
2	New Works for 3rd Control Period	**2**	0.50	0.50	0.50	**1.50**	
	Total	**8**	8.28	2.13	0.93	**11.34**	

Appendix-A

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
Table-11 of 2nd CIP Order- Works of 1st Control Period									
1	A	Unforeseen Expenditure on works on 2018-19			6.88		2020-21	2020-21	Work is completed. Not spillover.
2	39	Bus Bar Protection scheme for 45 no S/Stns. (90% funding Under Power System Development Fund (PSDF), 10% amount accounted for in FY 2017-18			1.11	1.82	12-2019	2021-22	Work is completed. Not spillover.
3	60	220 kV S/S Derabassi		Addl. 100MVA, 220/66 kV T/F	1.11	9	14.12.2015	2018-19	Work is completed. Not spillover.
4	62	400 kV S/Stn. Makhu		Addl 500MVA 400/220 kV T/F	30.39	29.6	21.11.2019	2021-22	Work is completed. Not spillover.
5	89	220 kV S/S Dhandhari Kalan 1 and 2	Provision of 220 kV Double bus bar arrangement		5.01	9.23	Project shifted to CIP No. 10		Scope of work revised at Sr. No. of 10 of MYT 2020-23. So, this work will not spillover. CWIP for 2020-21 has also been shifted to Sr. No. 10.
6	90	220 kV S/S Sahnewal		Provision of making 66 kV double bus arrangement including dismantlement & erection of new towers-	0.2	2.2	28/4/2017	2022-23	As 220 kV S/S Sahnewal caters mainly Industrial area so very few shutdowns are being approved but multiple shutdowns are required to complete this work which causes delay in completion of work. The scope of work also needs to be revised. So, the work is proposed to be foreclosed and new work with revised scope of work has been added in new MYT 2023-26.
7	102	New Civil Works in respect of 5 no. stores such as sheds, plinths and Boundry walls etc.		HR, IT, S&D Organization work	4.23		2022-23	2022-23	Work is completed. Not spillover.
8	104	Procurement of Hardwares, Server, Furniture, IT Space renovation (Civil Works) & Unforeseen Capital Investment		HR, IT, S&D Organization work	2.58		01-2022	04-2022	Work is completed. Not spillover.
9	107	220 kV S/Stn Sadiq		Repl. of 100 MVA with 160 MVA, 220/66 kV T/F	0.35	8.81	07-2020	2021-22	Work is completed. Not spillover.
10	108	220 kV S/Stn Bajakhana		Repl. of 100 MVA with 160 MVA, 220/66 kV T/F	0.35	8.81	20/03/2020	06-2022	Work is completed. Not spillover.
11	110	220 kV S/Stn Ghubaya		Repl. of 100 MVA with 160 MVA, 220/66 kV T/F	0.35	8.81	07.10.2019	2022-23	Work is completed. Not spillover.

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
12	116	220 kV S/StnBanga (U/G from 132 kV)		1x100 MVA, 220/132 kV T/F as spared from 220 kV S/StnMahilpur	2.79	8.19	01-2019	Dec 2022	Work is completed. Not spillover.
13	119	220 kV Line bays at 220 kV S/StnBanga (Proposed)		2 Nos. (cost of 1no. Line bay already included in s/stn.	0.33	1.3	01-2019	May 2022	Work is completed. Not spillover.
14	129	LILO of one ckt. of 400 kVJalandhar-Kurukshetra D/C line f at 400 kV Dhanansu(Quad Moose)	LILO length =5 km(approx)		12.04	17.00(approx.)	10-2021	3.2023	Erection of towers got completed except one tower. Work will be completed by 3/23.
15	131	220 kV Banur- Mohali (GMADA) DC line	4 km Line Length ACSR ZEBRA Conductor		3.48		Work dropped		Work to be dropped due to non availability/hand over of land from GMADA and non deposit of requisite funds.
16	134	400 kV Grid Dhanansu (near Doraha)	220 kV DC line from 400 kV Grid near Doraha to 220 kV Ikolaha 12 km (approx.)/ 420 sq mm DC ACSR Zebra				Dropped		Work dropped vide Amendment No.16/2021-22 Dated 27.07.2021
17-20	137-140	1. Aug/Strengthening of bus bars 2. Extension in Switchyard buildings, Provision for AC etc. 3. Provision for Reactive Compensation 4. Addition of bays/system strengthening required on account of RE generation	0		3.41	3.275	2020-21	2022-23	Work completed. Not spillover.

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
21	142	Replacement of Disc Insulators of 400 kV PSTCL lines with Polymer Insulators			105.45		4.21	03-23	Due to tripping of 400 kV lines in foggy season with porcelain insulators, PSTCL started washing of porcelain discs before foggy season which reduced tripping of 400 kV lines. After considering results of washing, BODs decided that all existing strings may not be replaced with polymer insulators and washing of discs be carried out twice a year. As per BODs decision washing is being done twice a year, once before foggy season and once after the wheat harvesting. Further it was decided to replace porcelain disc insulators with Polymer disc insulators at strategic locations for which 1000 polymer disc insulators have been replaced during this Control Period and 1000 polymer discs are under procurement for replacement in 2nd CP. Depending upon needs of the future, porcelain disc insulators will be replaced with Polymer Long Rod for which provision of Rs. 10 Cr. has been made in the MYT of 3rd CP.
22	143	220 kV DC line from 220 kV S/Stn Gaunsgarh to 220 kV S/StnLadhowal.			1.11	13.92	05-2018	12-22	Work is completed. Not spillover.
23 to26	152-155	1. Aug/Strengthening of bus bars 2. Extension in Switchyard buildings, Provision for AC etc. 3. Provision for Reactive Compensation 4. Addition of bays/system strengthening required on account of RE generation			4.87	15	2020-21	2022-23	Work is completed. Not spillover.
27	163	132 kV Samadh Bhai		Construction of a new Switch House Building at a new raised level	0.67		04.08.2019	2021-22	Work is completed. Not spillover.

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
28	164	132 kV Pathankot		Construction of a new control-room building by replacing old control - room building	0.22		02-11-2018	22/11/2019	Work is completed. Not spillover.
29	166	220 kV S/Stn Bhawanigarh	0	Addl. 2nd 100 MVA, 220/66 kV T/F	6.69	7.44	04.03.2020	Sep 22	Work under progress, will be completed by 31.08.2022
30	167	220 kV S/Stn Jadla	0	Addl. 2nd 100MVA, 220/66 kV T/F	6.69	7.44	03.02.2020	Dec 22	Work is completed. Not spillover.
31	168	220 kV S/Stn Botianwala (Thatha Sahib)	0	Addl. 3rd 160 MVA, 220/66 kV T/F	9.03	10.1	01.11.2021	March 23	Work will be completed by 03/23. Not spillover.
32	169	220 kV S/Stn Majitha	0	Addl. 2nd 100 MVA, 220/66 kV T/F	6.69	7.44	13.10.2020	March 23	Work under progress, will be completed by 31/03/2023. Not spillover.
33	170	132 kV S/Stn Pathankot	0	Repl. of 1x12.5/16 MVA, 132/66-33 kV T/F with 1x20/25 MVA, 132/66 kV T/F	0.23	0.21	26.02.2018	Dec 19	Work is completed. Not spillover.
34	171	132 kV IGC, Bathinda	0	Repl. of 1x25 MVA, 132/66 kV T/F with 1x50 MVA,132/66 kV T/F	0	0.18	11.05.2022	06-2022	Work is completed. Not spillover.

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
35	176	Replacement of Existing conductor of 220 kV Mohali-I - Mohali-II line		0	31.14		Dropped		Mohali1-Mohali 2 circuit was having high loading. So, in order to reduce the loading and to balance out the power flows between Mohali-1, Mohali-2, Lalru and Dera Bassi, LILO of 220 kV Mohali-1 - Lalru at 220 kV Mohali-2 has been planned vide amendment no. 27/2021-22 dated 09.12.21, this effectively creating double circuit connectivity between Mohali-1 and Mohali-2. Therefore Mohali-1 - Mohali-2 HTLS is not required now.
36	180	220 kV DC line from 400 kV Jalandhar (PGCIL) to 220 kV Kartarpur	Augmentation of existing conductor of both circuits with HTLS conductor of min 1200 A capacity	0	41.83		05-2022	03-2023	Work under progress. 1st circuit completed and 2nd circuit to be completed by 3/23.
		Total			**289.23**				
Table 13 of 2nd CIP Order- Works approved outside Ist CIP									
37	2b	132 kV Sihora-132 kV Seh SC line		2 no. 132 kV line bays (one at each end)	1.11	1	01-2020	01-21	Work is completed. Not spillover
38	3a	400 kV S/StnNakodar (2x315 MVA, 400/220 kV) (Amendment no. 43 /2018-19)			16.17	14.5	Dropped		This work has been revised and approved vide PSERC Petition No. 37 of 2020 and the revised work is in the **Work approved by Petition** list.So, hence work is deleted from here.
39	3b	Cost of dismantlement of 1x315 MVA, 400/220 kV ICT at 400 kV Nakodar			0.58	0.5			

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
40	5	400 kV Rajpura–220 kV Bassi Pathana DC Link. (Amendment no. 13 /2019-20)	220kV DC Line from 400 kV Rajpura to 220 kV Bassi- Pathana (Line length 2 X 20 km)		17.06		Work dropped		This work is deleted from here as new work is planned vide Amendment No. 16/2022-23 and The expenditure for Amend 16/22-23 shall be adjusted to the cost allocated for the work listed at Sr. No. 5 of Table 13 of MYT 2020-23 (which is to be deleted). Further it is submitted that work of replacement of existing conductor of 220 kV Gobindgarh-400kV Rajpura (D/C) line with HTLS conductor of suitable capacity was intended to be carried out under PSDF scheme and the work of 400kV Rajpura-Bassi Pathana (D/C) link was planned as an alternate in case PSDF grant is not obtained for the 220kV Gobindgarh-400kV Rajpura (D/C) HTLS work. PSDF grant has been approved for the 220kV Gobindgarh-400kV Rajpura (D/C) HTLS work & thus work of 400kV Rajpura-Bassi Pathana (D/C) link is no longer needed.
		4no. 220 kV Bays			5.89				
		220 kV Side bus extension arrangement to be made at 400 kV Rajpura for providing suitable space for 2 Nos 220 kV Bays			0.1				
41	8	220 kV Patti		Replacement of 1x100 MVA, 220/66 kV to 1x160 MVA, 220/66 kV T/F.	8.44	8.54	25.08.2021	06-2022	Work is completed. Not spillover.
42	9	220 kV Ferozepur road Ludhaiana		Replacement of 1x100 MVA, 220/66 kV to 1x160 MVA, 220/66 kV T/F.	8.44	8.54	11-2019	Jul-21	Work is completed. Not spillover.
Table 15 of 2nd CIP Order-Works already planned for 2020-23									
43	1	1 No. 400kV ICT bay, 1 No. 400 kV Tie bay, 1 No. 400 kV Future bay, 1 No. 220 kV ICT bay at 400 kV Rajpura. Amendment No. 20/ 2018-19	0	0	32.27	28	01-2022	08-2022	Work is under progress .Minor Civil Works pending. Will be completed by 15.08.2022. Not spillover.
44	2	Jumpering arrangement on tower no. T.L 290 for Termination of direct link 220 kV between Lalton Kalan Sahnewal (Amendment no. 04 / 2021-22)	0	In order to have PGCIL Ludhiana-220 kV Sahnewal as D/C (so as to avoid direct link between 220 kV Lalton Kalan-Sahnewal), termination shall be done at terminal tower at 220 kV LAlton Kalan end.	0.06		sept 21	Dec 21	Work completed on 31.10.2021. Not spillover

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
45	3	400kV, 200MW Permanent Power to Guru Gobind Singh Polymer Addition Project- HPCL Mittal Energy Limited. (Amendment no. 21 (ii,iii& iv) / 2018-19)			1	29		2020-21	As this is Contributory work and is present at contributory work list and the work is completed on March 21.
Table 17 : New Works planned for the 2nd Control Period from FY 2020-21 to 2022-23									
46	11	220 kV Kharar		Replacement of 2x20MVA, 132/11 kV with 2x20MVA, 66/11kV T/F	3.65	3.28	26/12/2017	31/07/2021	Work completed. Not spillover.
47	12	220 kV Banga		a) Addl. 1x100 MVA, 220/66 kV T/F.			work deleted		Scope revised vide Amendment No. 09/21-22 dated 28.06.21 and ratified by BOD.
48	13	220 kV Banga		b) Replacement of 2x20MVA, 132/11 kV T/F with 2x20 MVA, 66/11kV T/F.			Work deleted		
49	25	220 kV Nawanpind (new grid in the premises of 66 kV S/s Nawanpind)Includind SAS for RS 1cr. Amedment No. 17/21-22	220 kV Bays= 4 Nos			5.28	To be deleted		Scope revised on basis of request from PSPCL and Amendment No. 17/21-22 dated 24.08.21 issued and ratified by BOD. Right to use from PSPCL is pending
50	26		132 kV Bays= 2 Nos			0.96	To be deleted		
51	28	Additional link		220 kV double bus bar at 220 kV Ghubaya	0.17	0.15	Deleted		For double bus bar extension of yard is required and railway has also asked for connectivity of their RTSS at Bahmaniwala from 220kV Gubhaya for which additional 220 kV bay is is being constructed. Extension of the yard has also been planned at the cost of railways vide Amendment No. 18/2022-23. So this work is to be deleted.
52	31	New 220 kV Jhoke HariHar (New)	LILO of 220 kV Sadiq- Talwandi Bhai line at 220 kV Jhoke Harihar (New) (LILO length 13 km approx, 0.4 sq inch DC on DC)		16.794		6.2022	3.2023	Work completed by 03/23. Not spillover
53	34	220 kV Dhaleke (GIS) including SAS of RS 1 cr	LILO of both ckts of 220 kV Talwandi Bhai Dharmkot, conductor size 0.4sq", LILO length 10	To be deleted from Sr No. 34 to 36	13.17		Dropped		Work was planned with 220/132kV T/Fs. PSPCL has demanded 220/66kV T/F. Since 100MVA 220/66kV T/F at Singhawala has been planned as such this work is to be dropped.
54	35		0	2x100 MVA, 220/132 kV T/F. including 4 no. 220 kV bays	33.27	39.47			

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
55	37	132 kVSwadi Kalan		LILO of 132kV SC on DC line from Jamalpur to Moga at 132 kVswadi kalan ,conductor size 0.2sq", LILO length 4.5 km(approx)	2.33		4-2022	03-2023	Work will be completed by 03/23.
56	38			2 no. 132 kV bays	1.11		10-11-2021	31/03/2023	
57	40	ii) 220 kV Abohar	0	Addl. 12.5 MVA, 66/11 kV T/F.	2.269		2022-23	2022-23	Work will be completed by 31.10.2022.
58	41	iii) 220 kV Passiana	0	Addl. 12.5 MVA, 66/11 kV T/F.	2.269	0.83	18.06.2020	2022-23	Work is completed. Not spillover.
59	42	iv) 220 kV Dhuri	0	Aug. of 12.5 MVA, 66/11 kV to 20 MVA, 66/11 kV T/F.	2.02		11.05.2022	2022-23	Not spillover.
60	43	v) 220 kV Mohali - I	0	Replacement of 1x100 MVA, 220/66 kV to 1x160 MVA, 220/66 kV T/F.	9.84		09-2020	31/08/2022	Work is completed. Not spillover.
61	44	vi) 220 kV Banur	0	Addl. 20 MVA, 66/11 kV T/F.	2.28		07-2021	31/03/2023	Not spillover.
62	47	ix) 220 kV Mahilpur	0	Addl. 12.5 MVA, 66/11 kV T/F.	2.269	1	07.09.2020	2021-22	Work is completed. Not spillover.
63	48	x) 220 kV Kartarpur	0	Addl. 12.5 MVA, 66/11 kV T/F.	2.269		30.04.2021	2021-22	Work under progress, target date 30.09.2022

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
64	49	xi) 220 kV Badsahpur	0	Addl. 1x100 MVA, 220/66 kV T/F.	8.56		07-2022	2022-23	Work to be completed by 03/23
65	50	xii) 220 kV Butari	0	Addl. 12.5 MVA, 66/11 kV T/F.	2.269		30.04.2021	2022-23	Work under progress, target date 30.11.2022. Not spillover.
66	51	xiii) 220 kV Udhoke	0	Addl. 1x100 MVA, 220/66 kV T/F	8.56		05-2019	2022-23	Work under progress, target date 30.11.2022. Not spillover.
67	52	xiv) 220 kV Pakhowal	0	Replacement of 1x100 MVA, 220/66 kV to 1x160 MVA, 220/66 kV T/F.	9.84		01-2022	27/06/2022	Work is completed. Not spillover.
68	53	xv) 220 kV Jagraon	0	Aug. of 12.5 MVA, 66/11 kV to 20 MVA, 66/11 kV T/F	2.02	1.71	12-2020	2021-22	Work is completed. Not spillover.
69	55	xvii) 220 kV Kohara		Addl. 12.5 MVA, 66/11 kV T/F.	2.269		Work deleted		Work dropped as work of aug. of 20 MVA to 31.5 MVA has been planned.
70	56	xviii) 220 kV Doraha	0	Addl. 12.5 MVA, 66/11 kV T/F.	2.269		07-2021	2021-22	Work is completed. Not spillover.
71	57	xix) 220 kV Baghapurana	0	Addl. 12.5 MVA, 66/11 kV T/F.	2.269	2.26	01-2021	2021-22	Work is completed. Not spillover.
72	58	xx) 132kV SmadhBhai	0	Addl. 12.5 MVA, 132/11 kV T/F.	3.81		08.06.2021	2022-23	Work is completed. Not spillover.

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
73	59	xxi) 132kV Faridkot	0	Aug. of 12.5 MVA, 132/11 kV to 20 MVA, 132/11 kV T/F.	2.82		2022-23	2022-23	Not spillover.
74	64	xxvii) 132kV Bhikhiwind	0	Aug. of 12.5 MVA, 132/11 kV to 20 MVA, 132/11 kV T/F.	2.82		02-2022	2022-23	Work is completed. Not spillover.
75	65	xxviii) 132kV Shri Hargobindpur	0	Addl. 20 MVA, 132/11 kV T/F.	3.81		10.02.2022	2022-23	Not spillover.
76	66	xxx) 132kV Phillour		Aug. of 12.5 MVA, 132/11 kV to 20 MVA, 132/11 kV T/F	2.82		01-2022	2021-22	Work is completed. Not spillover.
77	67	xxxi) 132kV Bilaspur		Aug. of 12.5 MVA, 132/11 kV to 20 MVA, 132/11 kV T/F.	2.82		2022-23	2022-23	Not spillover.
78	68	xxxii) 132kV Tangra		Addl. 12.5 MVA, 132/11 kV T/F	3.81		01-2022	2022-23	Work under progress, target date 31.12.2022
79	73	Digitization of existing 220 kV S/s Passiana.		Case already approved. PSDF funding have been applied. Total cost = 11 Cr..s, out of which 90% PSDF funding & remaining 10% through capital investment.	1.27		Dropped		As per BODs 61st meeting dated 14.08.2020, work has been dropped.
80	76	132 kV S/s Kotkapura-I		Addl. 1x20 MVA, 132/11kV T/F	3.69	3.31	16/12/2021	2022-23	Work is completed. Not spillover.
81	79	132 kV Kapurthala.	0	Addl. 1x20 MVA, 132/11 kV	3.69	3.31	01-2022	2022-23	Work is completed. Not spillover.

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
82	80	132 kV Sosan.		Replacement of 1x12.5 MVA, 132/11 kV with 1x20 MVA, 132/11 kV T/F	2.74	2.46	Deleted		Being single T/F, augumentation will affect supply, so work dropped as discussed in TPC and work of additional 20 MVA is being planned in 3rd MYT.
83	81	132 kV Panjgraian.	0	Replacement of 1x12.5 MVA, 132/11 kV with 1x20 MVA, 132/11 kV T/F	2.74	2.46	12-2021	2021-22	Work is completed. Not spillover.
84	83	IGC Bathinda (Aug)	0	Replacement of 2x12.5 MVA, 132/11 kV with 2x20 MVA, 132/11 kV	5.48	4.92	11.05.2022	2022-23	1 No. T/F augmentation work complete, for 2nd 20MVA 132/11KV T/F under procurement.
85	84	132 kV Gholian Kalan.	0	Addl. 1x20 MVA, 132/11 kV T/F	3.69	3.31	07-2021	2022-23	To be completed by 03/23
86	85	LILO of 132 kV Verka – Mal mandi SC line at 220 kV S/s Nawanpind (132 kV bus) LILO length = 1 KM appx. DC on DC.	Replacement of existing conductor of 0.25sq" with equivalent HTLS conductor (on the same supporting structure), having a minimum capacity of at least 800A.				Work deleted		Work deleted vide Amendment No. 17/21-22 dated 24.08.21 issued and ratified by BOD. Reason for deletion of work is that PSPCL requested for 66 kV system at 220 kV Nawanpind due to which scope has been revised vide Amend No. 17/21-22 dated 24.08.21 and due to 66 kV sysytem, 132 kV lines were not needed now, hence this work deleted.
87	86	Augmentation of 132 kV Nawanpind - Verka, 5 KM (0.2sq") and 132 kV Nawanpind - Malmandi (5KM 0.2sq") with suitable HTLS conductor.	0				Work deleted		
88	89	132 kV GT Road Amritsar & 132 kV Sakatari Bagh Asr	132 kV link between 132 kV Gt Road- 132 kV Sakatri Bagh through 132 kV underground cable		18.68	16.56	08-2021	31/07/2022	WORK completed.
89	90		132 kV Bays= 2 Nos.	132 kV Bays= 2 Nos.	1.15	1	12-2021	31/07/2022	
90	92	Unforeseen emergency works			17.38	15	2021-22	2022-23	Work will be completed by 22-23

List of works of CIP 2nd Control Period which have been completed/ to be completed by 31.03.2023/Dropped/Shifted

Sr.No.	Sr No. as per CIP Order	Name of Project			Project cost as per CIP	Actual Project Cost	Start Date	Date of completion	Remarks (if any)
		Works approved outside 2nd MYT 2020-23 by Petition/BOD approval							
91	Amendment No. 22/2021-22	39 No. substation and one SLDC building	Installation of roof top solar power plant on roofs of control room of various 400/220/132 kV substations of PSTCL.			6.3	Deleted		CAPEX scheme is dropped. Now installation of rooftop will be explored in RESCO model.
92	Amendment No. 27/2021-22	220 kV S/S Mohali-2.	LILO of 220 KV Mohali-1-Lalru at 220 KV Mohali-2(Line length- 1 KM,0.4sq" conductor)-Stringing of LILO line.			0.317	10-22	12-22	Tendering work in progress
93	Amend 03/22-23	220 KV S/S Sahnewal	Augmentation of 1 no. 100 MVA Transformer at 220 kV Sahnewal Sub-station to 160 MVA			35.596	2022-23	2022-23	Not spillover
		220KVS/S Bajakhana Amend 03/22-23	Augmentation of 1 no. 100 MVA Transformer at 220 KV Bajakhana Sub-station to 160 MVA				2022-23	2022-23	Not spillover
		220KVS/S Ghulal Amend 03/22-23	Augmentation of 1 no. 100 MVA Transformer at 220 KV Ghulal Sub-station to 160 MVA				2022-23	2022-23	Not spillover
94	Amendment 08/22-23	132kv Power Colony Amritsar	1 No. 3rd Additional 132/11kV, 10/12.5 MVA T/F (spare T/f from system to be used).			59.86	2022-23	2022-23	Not spillover
		220 KV Sahnewal	Aug. of 1 no. 20 MVA with 31.5 MVA, 66/11 KV				2022-23	2022-23	
95	Amendment 11/22-23	220 kV Amloh	Augmentation of 220/66 kV 100 MVA TF to 160 MVA			12.09	2022-23	2022-23	Work is complete. Not spillover.

List of works of CIP 2nd Control Period which have been completed/

Sr.No.	Sr No. as per CIP Order	Name of Project

P&M Works which have been completed or to be completed by 31.03.2023/Dropped or shifted

Sr. No.	Sr. No. as per CIP Order	Name of Project	Total Project Cost as per CIP	Remarks
		Works of First Control Period(2017-20)		
1	1	To modernise the hotline work by use of Diagnostic techniques to decrease the outage in transmission system of PSTCL.	11.14	Work completed and will be capitalized in 2nd CP of MYT
2	2	To provide SAS based DRs and ELs at six 220kV S/S as per requirements of IEGC and SGC and comply with 3rd party protection audit by CPRI.	4.05	Not started and should be dropped as TS organization is automating all 220 KV S/Ss and this work will be part of that larger work
3	3	To provide DRs and ELs in 220 kV S/S of PSTCL to comply with IEGC, SGC and 3rd party protection audit by CPRI.	19.41	Not started and should be dropped as TS organization is automating all 220 KV S/Ss and this work will be part of that larger work
4	4	To procure testing equipment to check healthiness of OPGW channels and Ethernet Switch Network in Substation automation.	0.28	Work in progress; work will be completed in 2022-23.
5	5	Tan-Delta Measurement Set (7 No.)	2.51	Work completed
6	9	Insulation Tester for new Substations	1.47	Work completed
7	12	Upgrading of 2 No. 3 Phase Relay testing kits of 400kV protection Hub and SAP Hub	0	Work has been completed
8	13	Loader cum Crane for Amritsar Circle	0.56	Work completed
9	14	Mobile oil filtration sets under P&M Circle (4 No., 6KL/H)	1.11	Work completed
10	15	Construction of Security Huts at 220/132kV Sub stations	3.09	Not approved by BOD's of PSTCL. So work will not be done.
11	16	Re-fixing of UC Fencing at top toe wall to safeguard yard area from fire.	8.07	Not approved by BOD's of PSTCL. So work will not be done.
12	17	Providing Plinths for 2 sets (20 No.) of ERS-Towers at 400kV S/S Rajpura, Nakodar and 220kV Muktsar	0.56	Work completed and capitalised
13	20	Providing AC and Furniture at Kangra Rest House	0.17	Work Completed
Works approved by BOD outside 2nd MYT				
1	-	To provide dry air generators for P&M and Grid Construction organisation	0.45	Work in progress; work will be completed in 2022-23.

Appendix-B

Spill Over Works List

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 2nd Control Period (in Cr)	Total Cost of Project
Spill Over Works of 1st Control Period (From FY 2017-18 to FY 2019-20)									
1	120	220 kV S/Stn Sheeper (Focal Point) (U/G from 66 kV grid with 220 kV side GIS and 66 kV side Conventional)			27/11/2020	2023-24	Start of work got delayed due to shifting of 11 kV feeders and dismantlement of old building/ water tank by PSPCL. The site was cleared by PSPCL in March, 2021 and was handed over to the contractor for execution of work. Now the work of control room and yard is in progress.	4.78	10.2
2	121	LILO of both ckts of 220 kV S/Stn Jamalpur - 220 kV S/Stn Dhandari Kalan-1 line at 220 kV S/Stn Sheeper (Focal Point)(Amendment 25 2018-19)			1.2021	23-24	Price bid opened on dated 18.07.2022. Work allotment to be done	1.11	1.94
3	123	220 kV S/Stn Budhlada (U/G from 66 kV)		1x160 MVA, 220/66 kV T/F	17/08/2020	23-24	Work under progress, likely to be completed by 30.6.23	21.84	23.38
4	124	220 kV S/Stn Mansa - 220 kV S/Stn Budhlada DC Line			2.2021	08-23	ROW issues. Work in progress	18.08	21.88
5	128	400 kV S/Stn Doraha (New at Village Dhanansu)	0	3x315 MVA, 400/220 kV T/Fs	05-11-2020	2023-24	The land was allocated by PSIEC and handed over to PSTCL during 12/2019. The work was awarded on Turnkey basis in 12/20. Work was to be completed by 05/22. This work involved major earth filling which got delayed due to mining issues.	37.28	38.62
6	130	(i) 400 kV Bays (ii) 220 kV Bays at 400 kV S/Stn Doraha	0	(i) 4 Nos. (ii) 8 Nos.	05-11-2020	Mar 2024	Work under progress, likely to be completed by 30.09.2023	24.25	22.92
7	132	400 kV Grid Dhanansu (near Doraha)	LILO of 220 kV Kohara-Sahnewal (S/C) line at 400 kV Dhanansu				Scope revised on basis of revision of route plan of 220 kV transmission lines from 400 kV Dhanansu and Amendment No. 18/21-22 dated 27.07.21 issued and ratified by BOD. Works were to be taken up after clearance of ROW of lines. Doraha work allotted.		
			220 kV D/C line on D/C towers (1.857 km) line length (with Dhanansu-Sahnewal conductor of Moose, 0.5 sq" and Dhanasu-Kohara conductor of HTLS of Moose equivalent)		4.22	3.24		3.835	
			220 kV D/C line on Multi ckt towers (5.036 km) line length up to LILO point of existing Kohara-Sahnewal line (approx 0.5 km from Kohara) (with Dhanansu-Sahnewal conductor of Moose, 0.5 sq" and Dhanasu-Kohara conductor of HTLS of Moose equivalent)		4.22	3.24		13.973	
			Replacement of existing conductor of Kohara with LILO point section with HTLS conductor of Moose equivalent (0.557 km)		4.23	3.24		0.299	
			220 kV D/C line on Multi ckt towers (only stringing for changing route of LILO of GGSSTP-Kohara line (0.5 sq") at Gaunsgarh, on Mixed towers (5.638 km approx) line length (Moose 0.5 sq" cond)		4.23	3.24		2.937	
8	133		220 kV D/C line on D/C towers (21.957 km approx.) line length/ 420 sq mm ACSR Zebra) (out of the total line length of 28.437 km, 6.811 km of already existing line shall be used)		04-2022	05-2024		29.421	
9	134 (a)		LILO of 1 circuit of 220 kV Jamalpur (BBMB)-Ganguwal line at 220 kV bus of 400 kV Dhanansu. (approx. LILO length-8km (0.4 sq"), D/C on D/C towers. (New work)		04-2022	03-2024		10.384	
10	136		220 kV Bays (2 Nos. at Doraha, 2 Nos. at Kohara including double bus erection of 220 kV and 2 no. ICT bays at Dhanansu		22/08/2022	Mar 24		14.552	

Sr.No.	CAPEX during 2021-22 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2021-22 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2022-23 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2022-23 (Capitalization Total) Works	EC	IDC	Total
1	14.89	1.79	0.31	16.99	0.00	0.00	0.00	0.00	6.00	0.90	0.24	7.14	0	0	0	0
2	0.57	0.18	0.10	0.85	0.00	0.00	0.00	0.00	0.57	0.14	0.08	0.79	0	0	0	0
3	1.89	0.32	0.27	2.48	0.00	0.00	0.00	0.00	10.00	1.50	0.40	11.90	0	0.00	0.00	0
4	4.50	1.09	0.67	6.26	0.00	0.00	0.00	0.00	10.79	2.69	1.51	14.99	0	0	0	0
5	21.93	5.77	0.48	28.18	0.00	0.00	0.00	0.00	15.00	2.25	0.60	17.85	0	0	0	0
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.00	1.65	0.44	13.09	0	0	0	0
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	0.46	0.30	2.76	2	0.46	0.3	2.76
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	1.20	0.75	6.95	0	0	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.00	2.86	1.80	16.66	0	0	0	0
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.96	0.60	5.56	0	0	0	0
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.50	1.13	0.30	8.93	0	0	0	0

Sr.No.	CAPEX during 2023-24 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2023-24 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2024-25 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2024-25 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2025-26 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2025-26 (Capitalization Total) Works	EC	IDC	Total
1	18	2.7	0.72	21.42	41.13	5.84	1.31	48.06	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0.82	0.19	0.11	1.12	2.18	0.54	0.29	3.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	5.3	0.795	0.212	6.307	18.4	2.915	0.952	22.267	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	2.7	0.67	0.38	3.75	18.03	4.48	2.58	25.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	15	2.25	0.6	17.85	51.93	8.2955	1.65	61.8755	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	11	1.65	0.44	13.09	10	1.5	0.4	11.9	0	0	0	0	12	1.8	0.48	14.28	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	1.835	0.39	0.24	2.465	1.835	0.39	0.24	2.465	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5.05	1.26	0.75	7.06	10.05	2.46	1.5	14.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0.299	0.07	0.04	0.409	0.299	0.07	0.04	0.409	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	2.11	0.52	0.31	2.94	2.11	0.52	0.31	2.94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	9.18	2.26	1.29	12.73	21.18	5.16	3.09	29.41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	3.45	0.85	0.51	4.81	7.45	1.81	1.11	10.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	4.5	0.675	0.18	5.355	12	1.8	0.48	14.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix-B

Spill Over Works List

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual Anticipated Year of completion	Remarks	CIP approved for 2nd Control Period (in Cr)	Total Cost of Project	CAPEX during 2021-22				Capitalization during 2021-22				CAPEX during 2022-23				Capitalization during 2022-23				CAPEX during 2023-24				Capitalization during 2023-24				CAPEX during 2024-25				Capitalization during 2024-25				CAPEX during 2025-26				Capitalization during 2025-26			
										CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total			
										Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total
11	136	LILO of 220 kV S/Stn Mansa - Sunam (SC) at 400 kV S/Stn Patran (220 kV bus).	40 km (approx.) Line Length / 1xDC with 420 sq mm ACSR (Zebra)	0	09-2019	30.6.23	All towers erected. Work delayed due to ROW issues. Work to be completed by 30.6.23.	29.40	27.88	9.08	2.20	1.36	12.64	0.00	0.00	0.00	0.00	2.25	0.54	0.33	3.12	0	0	0	0	0.75	0.18	0.12	1.05	20.26	6.22	2.41	28.89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12 to 15	173-176	1. Aug/Strengthening of bus bars 2. Extension in Switchyard buildings, Provision for AC etc. 3. Provision for Reactive Compensation 4. Addition of bays/system strengthening required on account of RE generation	0	0	2020-21	2023-24	Work of installation of reactors at 400 kV Sub-Station Dhuri and Nakodar allotted in July/ Aug 2021. Work is likely to be completed in April 23.	11.94	59.2301	1.13	0.14	0.19	1.46	3.80	1.26	0.80	5.86	3.00	0.45	0.12	3.57	0.86	0.92	0.80	2.38	0	0	0	0	3	0.45	0.12	3.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	177	220 kV S/Stn Fazilka (U/G from 66 kV)	220 kV S/Stn Fazilka (U/G from 66 kV)	0	2023-24	2025-26	PSPCL demanded again this sub-station in TPC meeting held on 19.07.22 but till date land has not been finalized. Initially for railway connection 220 kV Ambvala switching sub-station has been proposed as deposit work of Railways. If land is not finalised by PSPCL, even in future then expansion of new switching sub-station of Ambvala will be explored.	25.35	17.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	6	0.9	0.24	7.14	2	0.3	0.08	2.38	5	0.75	0.2	5.95	1	0.15	0.04	1.19	12	1.8	0.48	14.28	20	3	0.8	23.8
17	178		400 kV S/Stn Makahar - 220 kV S/Stn Fazilka 220 kV DC line	0	2023-24	2025-26		28.09	22.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	6.25	1.49	0.93	8.67	0	0	0	0	6.25	1.49	0.93	8.67	0	0	0	0	6.25	1.49	0.93	8.67	18.75	4.47	2.79	26.01
18	179		220 kV Bays	0	2023-24	2024-25		5.45	5.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.15	0.04	1.19	0	0	0	0	2	0.3	0.08	2.38	0	0	0	0	2	0.3	0.08	2.38	5	0.75	0.2	5.95	0	0	0	0	0	0	0	0
		Total (A)						280.89	251.36	34.13	8.38	3.38	[illegible]	3.80	1.26	0.80	5.86	90.11	16.92	7.51	114.54	2.86	1.40	0.90	5.16	94.02	17.17	7.15	118.35	221.63	42.66	16.57	280.71	13.25	2.54	1.21	17.00	18.00	2.70	0.72	21.42	18.25	3.29	1.41	22.95	38.75	7.47	3.39	49.61
Table No 13 Spill Over Works approved by the Board in FY 2019-20 outside the first MYT approval													0.00																																		
19	1a	132 kV Faridkot – Kotkapura-2 DC line (Amendment no. 18 / 2018-19)	30 Kms		31/10/2019	3-2024	Work has been delayed due to court case. A legal opinion is being sought for further course of action as. Price bid has already been opened	11.79	13.03	-0.04	0.00	0.00	-0.04	0.00	0.00	0.00	0.00	5.00	1.20	0.75	6.95	5	1.2	0.75	6.95	8	1.92	1.2	11.12	8	1.92	1.2	11.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	1b			2 no. 132 kV line bays (one at each end)	Apr 23	Dec 23	Work in progress, to be completed by 12/23.	1.11	1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	1.7	0.255	0.068	2.023	1.7	0.255	0.068	2.023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
21	2a	132 kV Sikora-132 kV Sub SC line	31 Kms		01-2021	06-2023	ROW issues	12.16	12.16	2.16	0.52	0.32	3.00	0.00	0.00	0.00	0.00	5.22	1.25	0.78	7.25	0	0	0	0	3.48	0.832	0.52	4.832	11.17	2.73	1.64	15.54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
22	4	220 kV S/S Beas (new)	2x100 MVA 220/132 kV Auto T/F		2023-24	2025-26	Project cost is more than 50 cr but land is to be given free of cost by Radha Swami Dera Beas as such TBCB guidelines (as per Tariff Policy 2016 read with PSERC notification no. 132 dated 05.11.2019(Annexure-A) and MOP GOI letter no. 15/3/2017-Trans.Pt(1) dated 15.03.2021)(Annexure-B) are not applicable.	1	121.375	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	10.2	1.53	0.408	12.138	10.2	1.53	0.408	12.138	21	3.15	0.84	24.99	21	3.15	0.84	24.99	12.8	1.92	0.51	15.232	12.8	1.92	0.512	15.232
			6x132kV line bays (Existing 3 and additional 3)																							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		132KV S/S system at Butari will be dismantled.	LILO of Butari – BBMB Jalandhar at PGCIL Jalandhar 2.5Km 0.45q" and subsequently LILO of PGCIL Jalandhar- Butari at Beas 22.5Km 0.45q"							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	13.1	1.96	0.52	15.58	0	0	0	0	32.75	4.91	1.31	38.97	0	0	0	0	19.65	2.95	0.79	23.39	65.5	9.82	2.62	77.94
		Bypassing 132 Kv Beas line to Tangra & Dhilwan-Beas/Butari to Khalgadda after LILO of Dhilwan-Butari at Beas (new)	Shifting of 132kV system from 220kV Butari (1 Km length) by LILO of 132 KV Dhilwan - Butari at Beas 1.5 Kms with some portion on Modern Techniques Total Length 2.5 Km							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Spill Over Works List

Appendix-B

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for the Control Period (Rs Cr)	Total cost of Project
			2x132kV towers dismantlement & 3nos. Towers to be erected						
			Conversion of 132kV Tee base -Batari-Ekalgadda T-off to LILO 15Kms 0.2 Sq"						
			132kV D/C Bassi - Ekalgadda Line 30 Kms 0.2 Sq"						
23	7	OPGW			21-22	23-24	Work under progress. 50% funding Under Power System Development Fund (PSDF) i.e. Rs 33.05 Cr, and balance amount of Rs. 66.24 Cr – Rs 33.05 cr = Rs 33.19 Cr as PSTCL share. (DPR cost = Rs 66.10 Cr)	37.05	30
24	10	220 kV Dhandari Kalan - 2		2x160 MVA, 220/66 kV T/F at new location to be added (with complete new ICT bays	2022-23	March 24	This sub-station caters industrial load and this work requires multiple shutdowns due to which work got delayed	20.54	20.2
25	11			dismantlement of 2x100 MVA T/F for creating space for double bus bar	2023-25	March 24		0.8	1
26	12			Interconnecting 66 kV double bus bar of dhandarikalan 1 dhandarikalan 2	02-2020	March 24		1.6	2
		Total (B)						86.07	203.77
	Table 17 : Spill over of New Works planned for the 2nd Control Period from FY 2020-21 to 2023-23								
27	1	400 kV S/s Ropar New Grid (in the premises of GGSSTP)		Establishment of 400 kV AIS station along with auxiliary, control room building, Gantry structure, extension provision etc.	08-09-2021	2023-24	Work awarded on turnkey basis in 10/21. Scheduled Completion by 09/23. Work is likely to be completed in 2023-24	29.23	
28	2			400 kV S/s with 2x500 MVA, 400/220 kV ICTs				36.36	32
29	3			400 kV bays = 4 Nos				17.59	15
30	4			220 kV bays = 10 Nos				11.56	13.2

Sr.No. / Item	CAPEX during 2021-22 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2021-22 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2022-23 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2022-23 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2023-24 (CAPEX Total) Works	EC	IDC	Total
2x132kV towers dismantlement & 3nos. Towers to be erected	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0
Conversion of 132kV Tee base -Batari-Ekalgadda T-off to LILO 15Kms 0.2 Sq"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0
132kV D/C Bassi - Ekalgadda Line 30 Kms 0.2 Sq"	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0
23	4.28	1.04	0.64	5.96	0.00	0.00	0.00	0.00	25.00	8.25	3.75	35.00	0	0	0	0	12	3	1.8	16.8
24	0.00	0.01	0.17	0.18	0.00	0.00	0.00	0.00	10.00	1.50	0.40	11.90	12.28	2.22	0.87	15.15	10	1.5	0.4	11.9
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.15	0.04	1.19	1	0.15	0.04	1.19	1	0.15	0.04	1.19
26	0.49	0.12	0.05	0.66	0.00	0.00	0.00	0.00	2.60	0.52	0.21	3.85	1.92	0.37	0.17	2.46	2	0.3	0.08	2.38
Total (B)	6.85	1.69	1.18	9.76	0.00	0.00	0.00	0.00	49.14	10.87	5.83	65.84	20.16	3.84	1.63	25.75	61.48	11.46	5.04	77.96
Table 17	0.00	0.00	0.00	0.00																
27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0	0	0.01	0	0	0	0
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	30	4.5	1.2	35.7
29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	3.00	0.85	23.85	0	0	0	0	35.00	5.25	1.36	41.80
30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.45	0.12	3.57	0	0	0	0	7	1.05	0.28	8.33

Sr.No. / Item	Capitalization during 2023-24 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2024-25 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2024-25 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2025-26 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2025-26 (Capitalization Total) Works	EC	IDC	Total
2x132kV towers dismantlement & 3nos. Towers to be erected	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Conversion of 132kV Tee base -Batari-Ekalgadda T-off to LILO 15Kms 0.2 Sq"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132kV D/C Bassi - Ekalgadda Line 30 Kms 0.2 Sq"	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23	41.28	10.29	6.19	57.76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	10.00	1.50	0.40	11.90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	1	0.15	0.04	1.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	3.49	0.57	0.17	4.23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total (B)	86.84	16.96	10.12	115.90	63.75	8.06	3.15	63.96	21.00	3.15	0.84	24.99	32.46	4.87	1.30	38.62	78.30	11.74	3.13	93.17
Table 17																				
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	30	4.5	1.2	35.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	20	3	0.8	23.8	0	0	0	0	35.00	5.25	1.70	41.95	0	0	0	0	0	0	0	0
30	8.6	1.29	0.344	10.234	0	0	0	0	1.4	0.21	0.056	1.666	0	0	0	0	0	0	0	0

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Spill Over Works List

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Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 3rd Control Period (in Cr)	Total Cost of Project	CAPEX during 2021-22 (CAPEX Total)				Capitalization during 2021-22 (Capitalization Total)				CAPEX during 2022-23 (CAPEX Total)				Capitalization during 2022-23 (Capitalization Total)				CAPEX during 2023-24 (CAPEX Total)				Capitalization during 2023-24 (Capitalization Total)				CAPEX during 2024-25 (CAPEX Total)				Capitalization during 2024-25 (Capitalization Total)				CAPEX during 2025-26 (CAPEX Total)				Capitalization during 2025-26 (Capitalization Total)			
										Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total
31	5			Connectivity of 220 kv bus of 400 kv Ropar with existing 220 kv bus of GGSTP Ropar with 4 Nos. Twin moose ckts (Approx Length 1 km)				4.95	6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.30	0.35	0.09	2.74	0	0	0	0	4.30	0.65	0.17	5.12	6.6	0.99	0.26	7.854	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
32	6		LILO of one ckt of 400 kV Ludhina PGCIL– Koldam at proposed 400 kV S/s Ropar, LILO Length = 15 km (approx.), Triple Conductor (Snowbird)		01.04.2022	31.03.2024		30.04		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.40	1.72	0.61	7.85	0	0	0	0	18.2	3.885	2.43	22.515	21.8	5.805	3.24	30.445	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
33	7		LILO of 2nd ckt of 400 kV Ludhina PGCIL– Koldam at proposed 400 kV S/s Ropar, LILO Length = 15 km (approx.), Triple Conductor (Snowbird)		01.04.2023	31.03.2025		27.88		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	5.01	1.2	0.75	6.96	0	0	0	0	15.04	3.52	2.26	20.82	20.05	4.82	3.01	27.88	0	0	0	0	0	0	0	0
34	8			400 kV bays = 2 Nos	2023-24	2023-24		8.66	7.5	0.54	0.14	0.02	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.54	0.14	0.02	0.70	7.5	1.125	0.3	8.925	7.5	1.125	0.3	8.925	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
35	9	400 kV Dhanansu(already planned) its additional 400 kV link required	LILO of 2nd ckt of 400 kV Jallandhar– Kurukshetra D/c line at Dhanansu (Quad Moose), LILO length = 5 km (approx.)		05-23	Dec 24	Tendering work under process.	2.37		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	1.7	0.42	0.25	2.37	1.7	0.42	0.25	2.37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36	10		400 kV bays 2 no		2023-24	2024-25		1.19	7.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	1.5	0.225	0.06	1.785	0	0	0	0	1.5	0.225	0.06	1.785	3	0.45	0.12	3.57	0	0	0	0	0	0	0	0
37	12 (A)	220 kV Banga		Add 1x100 MVA, 220/132 kV Auto T/F.	07-2022	2023-24	Scope revised vide Amendment No. 09/21-22 dated 28.08.21 and ratified by BOD	12.417		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.01	0.24	0.44	0.05	0.01	0.50	10	1.5	0.4	11.9	10	1.5	0.4	11.9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
38	14	220kV G.T. Road Ludhiana (New GIS) or (in Ludhiana area)(included SAS for RS 1cr		220 kV S/s G.T. Road Ludhiana (New GIS Grid in the premises of existing 66 kV S/s G.T. Road Ludhiana) or (in Ludhiana area) with 2x160MVA, 220/66 kV T/F	Under Study	Under Study	Under study due to complication of ROW. Route is being studied by using modern technology like monopoles/multi-circuit towers. Once the route is finalised, PSERC will be approached through petition during the course of next MYT.	38.58	31.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
39	15		LILO of 220 kV Ladowal - Gaunsgarh (DC) lines both ckts. at 220 kV G.T. Road Ludhiana, LILO Length = 7KM (appx.), conductor size 0.4sq" (2xDC lines)	0				12.41		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.236	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40	16		0	220 kV bays = 4 Nos				12.28	10.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	17		0	66 kV bays = 4 Nos				1.81	1.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
42	18	220 kV Gobindgarh S/s (New Grid in the near by area of existing 220 kV S/s Gobindgarh-I), Included SAS for RS 1cr. (Pharmaceuticals Wazirabad new)	0	220 kV S/s Gobindgarh (New) with 2x160MVA, 220/66 kV T/F	2024-25	2025-26	Purchase of land from PSIEC is process.	36.56	31.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.00	0.60	0.16	4.76	0	0	0	0	10	1.5	0.4	11.9	8	1.2	0.32	9.52	16	2.4	0.64	19.04	4	0.6	0.16	4.76	13	1.95	0.52	15.47	31	4.65	1.24	36.89
43	19		LILO of 220 kV Gobindgarh-I - Bassi Pathana at 220 kV Gobindgarh, LILO length appx. 7 KM (DC on DC) with 0.4sq" conductor	0	5.2023	3.2024		6.18		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	1	0.25	0.15	1.4	0	0	0	0	1	0.25	0.15	1.4	2	0.5	0.3	2.8	0	0	0	0	0	0	0	0

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Spill Over Works List

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual Anticipated Year of completion	Remarks	CIP approved for 3rd Control Period (in Cr)	Total Cost of Project
44	20		LILO of 220 kV GGSSTP - Gobindgarh-I at 220 kV Gobindgarh (new), LILO length 1 KM (appx.) 0.4sq" conductor, DC on DC.	0	5.2023	3.2024		8.18	
45	21			220 kV bays = 4 No.	2024-25	2025-26		3.05	2.64
46	22			66 kV bays = 8 No.	2024-25	2025-26		2.69	2.34
47	23	220 kV Nawanpind (new grid in the premises of 66 kV S/s Nawanpind)(included SAS for RS 1cr. Amendment No. 17/21-22		2x100 MVA, 220/66 kV T/F including 4 No. 220 kV line bays, 2 T/F bays and 1 Bus coupler bay and associated 66 kV bays) including SAS.	2022-23	2024-25	Scope revised on basis of request from PSPCL and Amendment No. 17/21-22 dated 24.08.21 issued and ratified by BOD. Right to use not finalised.	38.069	
48	24		LILO of 220 kV Verpal – Wadalagranthian and Verpal-Udhoke lines at proposed DC line at proposed 20 kV S/s Nawanpind 2xDC, conductor size 0.4sq", LILO length 1 KM.		5.2023	4.2024		2.774	
49	27	Additional Work	Stringing of IInd ckt. Of 220kV Muktsar- Ghubaya line,conductor size 0.4sq", Line length 40.3 KM	0	4.2023	3.2025	Work not started due to non availability of space at 220 KV Ghubaya.	7.73	
50	29	Augmentation/additions of transformers at 220/132 kV level.	(L.S. provision)	For augmentation and addition of 220 kV as well as 132 kV transformers, as per the unforeseen/emergent loading requirements, as approximate provision of 5 Cr..s per year (i.e. 3 transformers per year) has been made.	21-22	24-25	Work in progress.	37.53	
51	30	New 220 kV Giaspura including SAS of RS 1 cr.	0	Under study	2023-24	2025-26	Proposal of up-gradation has been received from CE/Central and CE/P&M PSPCL to de-load 220 KV S/S Sahnewal to facilitate release of new connections in Kanganwal area and shift 66 KV Single Cycles. Under study due to complication of ROW. Route is being studied by using modern technology like monopoles/multi-circuit towers. Once the route is finalised, PSERC will be approached through petition during the course of next MYT.		
52	31	New 220 kV Jhoke Harihar (New)		Up of 66 kV Jhoke Harihar to 220 kV with installation of 1X 100 MVA, 220/66 kV T/F (including 2 Nos. line bays, 1 No. T/F bay and 1 No. B/C bay)	2023-24	2025-26	Earlier this project was under study with approved CIP of 23.28 crores but now scope has been finalised and Amendment No. 11/21-22 dated 06.07.21 issued and ratified by BOD. Right to use not finalised.	19.865	26
53	32	220 kV [illegible] including SAS of RS 1 cr	LILO of one ckt of 220 kV wadalagranthian- sarna line DC on DC 2xDC, conductor size 0.4sq", LILO length 5 km(approx)	0	12-2020	03-2024	Civil work was to be taken in hand only after the completion of line . Now ROW is clear, so civil work has started at site.	4.41	7.27
54	33			2x100 MVA, 220/66 kV T/F, including 2 no. 220 kV bays	2022-23	2023-24		23.46	26.17

Sr.No.	CAPEX during 2021-22				Capitalization during 2021-22				CAPEX during 2022-23				Capitalization during 2022-23				CAPEX during 2023-24				Capitalization during 2023-24				CAPEX during 2024-25				Capitalization during 2024-25				CAPEX during 2025-26				Capitalization during 2025-26			
	CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total			
	Works	IEC	IDC	Total	Works	IEC	IDC	Total	Works	IEC	IDC	Total	Works	IEC	IDC	Total	Works	IEC	IDC	Total	Works	IEC	IDC	Total	Works	IEC	IDC	Total	Works	IEC	IDC	Total	Works	IEC	IDC	Total	Works	IEC	IDC	Total
44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	1	0.25	0.15	1.4	0	0	0	0	1	0.25	0.15	1.4	2	0.5	0.3	2.8	0	0	0	0	0	0	0	0
45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.00	0.75	0.20	5.95	5	0.75	0.2	5.95	13.5	2.025	0.54	16.065	10	1.5	0.4	11.9	13.5	2.025	0.54	16.065	17	2.55	0.68	20.23	0	0	0	0	0	0	0	0
48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.25	0.30	1.55	0	0	0	0	1	0.25	0.3	1.55	0	0	0	0	0.7	0.17	0.1	0.97	2.7	0.67	0.7	4.07	0	0	0	0	0	0	0	0
49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	3.906	0.99	0.62	5.516	0	0	0	0	1.674	0.33	0.2	2.204	5.58	1.32	0.82	7.72	0	0	0	0	0	0	0	0
50	9.44	1.09	0.04	10.57	9.41	1.09	0.04	10.54	10.00	1.50	0.40	11.90	10	1.5	0.4	11.9	10	1.5	0.4	11.9	10.03	1.50	0.40	11.93	10	1.5	0.4	11.9	10	1.5	0.4	11.9	0	0	0	0	0	0	0	0
51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.236	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	12	1.8	0.48	14.28	12	1.8	0.48	14.28	7	1.05	0.28	8.33	7	1.05	0.28	8.33	6	0.9	0.24	7.14	6	0.9	0.24	7.14
53	3.43	0.83	0.51	4.77	0.00	0.00	0.00	0.00	0.50	0.12	0.75	1.37	0	0	0	0	0.5	0.12	0.75	1.37	4.45	1.07	2.01	7.53	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.00	1.05	0.28	8.33	2	0.3	0.08	2.38	16	2.4	0.64	19.04	21	3.15	0.84	24.99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Spill Over Works List

Sr.No	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 2nd Control Period (in Cr)	Total Cost of Project
55	38	220 KV Dhaleke (GIS) including SAS of Rs. 1 Cr.	132 kV Village I - Dhaleke DC link arrangement by making use of existing network,conductor size 0.2sq", LILO length 7 km(approx)	0	2019-20	2025-26		2.47	1.11
56	39	i) 220 kV Singhawala	0	Addl. 1x100 MVA, 220/66 kV T/F.	2022-23	2023-24	Work will be completed by 30.06.2023	8.50	
57	40	vii) 220kV Khassa	0	Aug. of 12.5 MVA, 66/11 kV to 20 MVA, 66/11 kV T/F.	2022-23	2023-24	Due to COVID, availability of CRGO material has reduced and Transformers tendering process slowed down. SO, Transformer supply got affected.	2.83	
58	46	viii) 220 kV Algon	0	Aug. of 12.5 MVA, 66/11 kV to 20 MVA, 66/11 kV T/F.	2022-23	2023-24	Due to COVID, availability of CRGO material has reduced and Transformers tendering process slowed down. SO, Transformer supply got affected.	2.83	
59	54	ix) 220 kV Himmatpura	0	Aug. of 12.5 MVA, 66/11 kV to 20 MVA, 66/11 kV T/F.	18.08.2020	2023-24	Due to COVID, availability of CRGO material has reduced and Transformers tendering process slowed down. SO, Transformer supply got affected.	2.82	
60	60	xiii) 132kV Ferozshah	3	Aug. of 12.5 MVA, 132/11 kV to 20 MVA, 132/11 kV T/F	07.08.2020	2023-24	Due to COVID, availability of CRGO material has reduced and Transformers tendering process slowed down. SO, Transformer supply got affected.	2.82	
61	61	xiii) 132kV Manasingh Wala	3	Aug. of 12.5 MVA, 132/11 kV to 20 MVA, 132/11 kV T/F.	23.09.2020	2023-24	Due to COVID, availability of CRGO material has reduced and Transformers tendering process slowed down. SO, Transformer supply got affected.	2.82	
62	62	xiv) 132kV Jalalabad		Aug. of 12.5 MVA, 66/11 kV to 20 MVA, 66/11 kV T/F	2023-24	2023-24	Due to COVID, availability of CRGO material has reduced and Transformers tendering process slowed down. SO, Transformer supply got affected.	2.80	
63	63	xvi) 132kV Kalkanangal	0	Aug. of 12.5 MVA, 132/11 kV to 20 MVA, 132/11 kV T/F.	2022-23	2023-24	Due to COVID, availability of CRGO material has reduced and Transformers tendering process slowed down. SO, Transformer supply got affected.	2.82	
64	69	Augmentation of bus bars, extension in control room building, providing room for second source for station battery etc.	0	For strengthening of bus – bar arrangement, extension in control room building for the existing 220/132 kV grids of PSTCL, as per the requirement of P&M from time to time, a provision of about 20 Cr.s (i.e. 7,7,6 Cr.s per year) has been made.	04-20	25-26	Work under progress, will spillover.	23.15	20
65	70	Additional 220/132/66 kV line bays related with feasibility cases or as per PSPCL requirement.	0	As per the requirement of PSPCL, for the load released through feasibility cases, a provision of about 25 Cr.s per year has been made for erection of 66/132/220 kV bays at various grids of PSTCL. (i.e. 8,8,9 Cr.s per year)	04-20	25-26	Work under progress, will spillover.	28.85	25
66	71	Second source of battery at various 220/132 kV Sh of PSTCL	0	Balance work for 49 Nos grids (out of these 31 Nos are 220 kV & remaining 18 Nos are 132 kV Shs) Total cost = 15 Cr.s (with 70% PSDF funding & remaining to be arranged through capital investment)	2023-24	2024-25	PSDF funding sanctioned in the month of March 22 for 87 No. Grids. PSDF funding is 5.81crore (project cost 11.67). PSDF sanctioned late.	5.21	4.5
67	72	80 nos PSTCL grids (220 kV) to be provided with SAS. Report already sent for PSDF funding if approved, these stations will be upgraded	0	Cost of one station for SAS provision is Rs 4 Cr s out of this 70% is PSDF funding & balance 30% shall be through capital investment	2023-24	25-26	DPR for PSDF funding returned by NLDC POSOCO. New DPR is being submitted for PSDF funding.	102.58	108

Sr.No	CAPEX during 2021-23 – CAPEX Total: Works	EC	IDC	Total	Capitalization during 2021-22 – Capitalization Total: Works	EC	IDC	Total	CAPEX during 2022-23 – CAPEX Total: Works	EC	IDC	Total	Capitalization during 2022-23 – Capitalization Total: Works	EC	IDC	Total
55	-0.21	0.00	0.00	-0.21	0.00	0.00	0.00	0.00	0.25	0.06	0.01	0.32	0	0	0	0
56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.10	1.22	0.32	9.64	0	0	0	0
57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.01	0.24	0.2	0.03	0.008	0.238
58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.01	0.24	0.2	0.03	0.008	0.238
59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.02	0.1	0.015	0.004	0.119
60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.02	0.00	0.12	0.1	0.015	0.004	0.119
61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.02	0.00	0.12	0.1	0.015	0.004	0.119
62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.02	0.00	0.12	0.1	0.015	0.004	0.119
64	1.96	0.45	0.14	2.54	1.52	0.49	0.20	2.22	8.15	1.26	0.40	9.81	8.64	1.23	0.326	10.196
65	2.47	0.30	0.10	2.88	2.11	0.37	0.09	2.57	11.00	1.65	0.44	13.09	11.68	1.66	0.45	13.79
66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.50	0.36	0.10	2.96	1	0.15	0.04	1.19
67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0

Sr.No	CAPEX during 2023-24 – CAPEX Total: Works	EC	IDC	Total	Capitalization during 2023-24 – Capitalization Total: Works	EC	IDC	Total	CAPEX during 2024-25 – CAPEX Total: Works	EC	IDC	Total
55	0.25	0.06	0.01	0.32	0	0	0	0	0.25	0.06	0.01	0.32
56	8.25	1.2375	0.33	9.8175	16.35	2.4525	0.654	19.4565	0	0	0	0
57	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0
58	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0
59	2.08	0.315	0.08	2.475	2	0.3	0.08	2.38	0	0	0	0
60	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0
61	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0
62	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0
63	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0
64	9	1.35	0.36	10.71	9	1.35	0.36	10.71	1	0.15	0.04	1.19
65	11.5	1.725	0.46	13.685	11.5	1.725	0.46	13.685	0.5	0.075	0.02	0.595
66	4	0.6	0.16	4.76	5.50	0.83	0.22	6.55	1	0.15	0.04	1.19
67	20	3	0.8	23.8	20	3	0.8	23.8	40	6	1.6	47.6

Sr.No	Capitalization during 2024-25 – Capitalization Total: Works	EC	IDC	Total	CAPEX during 2025-26 – CAPEX Total: Works	EC	IDC	Total	Capitalization during 2025-26 – Capitalization Total: Works	EC	IDC	Total
55	0	0	0	0	0.25	0.06	0.01	0.32	2.05	0.35	0.15	2.45
56	0	0	0	0	0	0	0	0	0	0	0	0
57	0	0	0	0	0	0	0	0	0	0	0	0
58	0	0	0	0	0	0	0	0	0	0	0	0
59	0	0	0	0	0	0	0	0	0	0	0	0
60	0	2	0	0	0	0	0	0	0	0	0	0
61	0	0	0	0	0	0	0	0	0	0	0	0
62	0	0	0	0	0	0	0	0	0	0	0	0
63	0	0	0	0	0	0	0	0	0	0	0	0
64	1	0.15	0.04	1.19	0	0	0	0	0	0	0	0
65	0.5	0.075	0.02	0.595	0	0	0	0	0	0	0	0
66	1	0.15	0.04	1.19	0	0	0	0	0	0	0	0
67	40	6	1.6	47.6	30	4.5	1.2	35.7	30	4.5	1.2	35.7

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Spill Over Works List

Appendix-B

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 3rd Control Period (in Cr)	Total Cost of Project	CAPEX during 2021-22				Capitalization during 2021-22				CAPEX during 2022-23				Capitalization during 2022-23				CAPEX during 2023-24				Capitalization during 2023-24				CAPEX during 2024-25				Capitalization during 2024-25				CAPEX during 2025-26				Capitalization during 2025-26			
										CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total			
										Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total
68	74	Replacement of existing conductor of 220 kV Gobindgarh - 400kV Rajpura (DC) with HTLS of suitable capacity.	Revised	L.S. Provision in @ Rs. 40 Cr., per year	4.2022	3.2024	Work in progress. Work is PSDF funded. 20.97 crore is PSDF funded. Total project cost is 27.87 Crore. 50.8 Crore has been subtracted from total cost.	68.17		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.00	5.00	3.00	28.00	0	0	0	0	3	0.75	0.45	4.2	23	5.75	3.45	32.2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
69	75	Additional of 14 No T/F on account of making (N-1) complaint system for those grids where only one T/F existing (Annexure C)		A provision of Rs. 25 Cr. for 2020-21, Rs. 25 Cr., for 2021-22 & Rs 30 Cr., For 2022-23 have been made. Augmentation shall be made for grid stations as per the space availability & loading conditions	04-2020	2024-25	Procurement under process	80.96		0.84	0.30	0.05	1.19	1.75	0.29	0.16	2.20	25.80	3.87	1.11	30.78	25.2	3.81	1	30.01	25.5	3.825	1.02	30.345	25.5	3.825	1.02	30.345	20.5	3.075	0.82	24.395	20.5	3.075	0.82	24.395	0	0	0	0	0	0	0	0
70	77	132 kV works Bhaspur		Replacement of 1x12.5 MVA, 132/11 kV with 1x20 MVA, 132/11 kV T/F	2022-23	2023-24		2.74	2.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	2.04	0.308	0.0816	2.4276	2.04	0.308	0.0816	2.4276	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
71	78	132 kV Nawanshahar	0	Addl. 1x20 MVA, 132/11 kV T/F	2023-24	2023-24		3.89	3.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	2.7	0.405	0.108	3.213	2.7	0.405	0.108	3.213	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
72	87	Augmentation of 132 kV GGSSTP - Asron(8 KM 0.2sq") and 132 kV GGSSTP - Ropar (18.75 KM) 0.2sq".	Replacement of existing conductor of line with suitable HTLS conductor (on same towers) having a capacity of at least 800A.		04-2023	03-2025	AS this is PSDF funded work, project got sanctioned on 20.3.22. Now tendering is under process. Line length is 15 km instead of 8 km. PSDF funding is 11.32 crores. DPR cost is 18.80 crore.	18.8		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	6.78	1.665	1.03	9.475	0	0	0	0	6.78	1.66	1.03	9.48	13.52	3.38	2.06	18.96	0	0	0	0	0	0	0	0
73	88	CEI/ PSM Agenda No. 145/2017-18 dtd 20.06.17. Best Practices recommended by Protection Sub Committee of NRPC in operation & construction of Sub Stations		Installation of 989 Nos. CVTs at various 220 kV lines for Distance Relay protection	2020-21	2024-25	Procurement process initiated.	17.38		0.10	0.00	0.00	0.10	0.12	0.04	0.00	0.16	5.00	0.75	0.20	5.95	5	0.75	0.2	5.95	5	0.75	0.2	5.95	5	0.75	0.2	5.95	5	0.75	0.2	5.95	5	0.75	0.2	5.95	0	0	0	0	0	0	0	0
74	91	OPGW link between SHPP- RSD- 220 kV Sarna & SHPP- 220 kV Sarna			2024-25	2025-26	This work will be executed after execution of S/S at SHPP by PSPCL.	8.02		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	2.88	0.68	0.48	4	0	0	0	0	2.88	0.88	0.48	4	5.76	1.32	0.82	8
		Total (C)						817.97		18.56	3.01	0.86	22.43	14.91	2.29	0.60	17.80	139.92	24.10	9.69	173.71	70.29	10.48	2.76	83.53	299.60	48.75	17.41	365.76	306.47	61.20	19.18	376.86	146.30	24.43	9.00	179.73	191.25	33.00	13.31	237.56	52.13	8.07	2.43	62.63	74.81	11.62	3.75	90.18
		Total Spill Over (A+B+C)=D						1184.93		79.69	14.06	6.42	99.09	18.41	3.65	1.30	23.36	278.17	51.89	23.12	364.18	93.33	16.82	6.29	114.44	455.10	77.37	29.60	562.07	614.94	112.05	46.47	773.46	212.30	35.03	12.36	259.69	230.25	38.96	14.67	283.87	102.83	16.23	5.14	124.20	191.86	30.83	10.47	233.16
		Split over of Works approved outside 3rd MYT 2020-23 by Petition/BOD approval											0.00											0	0																								
1	Amendment No. 21/2020-21	400 kv S/S Nakodar	Replacement of 1x315 MVA, 400/220 KV ICT with 1x500 MVA, 400/220 KV ICT		2022-23	2023-24	Revised scope of work was approved by PSERC vide PSTCL Petition No. 37 of 2020. Now work is under progress. Work order stands issued		18.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.20	1.38	0.37	10.95	9.2	1.38	0.37	10.948	12	1.80	0.48	14.28	12	1.80	0.48	14.28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Cost of dismantlement of 1x315 MVA, 400/220 KV ICT at 400 KV Nakodar						4.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90	0.14	0.04	1.07	0.90	0.14	0.04	1.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Construction of 1 No. ICT bay and 1 No. 220 kV bay at 400 kV Nakodar with interlinking link of 220 kV						4.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.20	0.48	0.13	3.81	0.20	0.03	0.01	0.24	3.30	0.50	0.13	3.93	6.30	0.95	0.25	7.50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Replacement of 2nd 315 MVA, 400/220 KV ICT with 2nd 500 MVA, 400/220 KV ICT						18.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.01	0.24	0.20	0.03	0.01	0.24	15.30	2.28	0.81	18.09	15.30	2.28	0.81	18.09	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Cost of dismantlement of 2nd 315 MVA, 400/220 KV ICT at 400 KV Nakodar						4.58	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.01	0.24	0.20	0.03	0.01	0.24	0.70	0.11	0.03	0.83	0.70	0.11	0.03	0.83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	Amendments No.09/2021-22	220K S/S Baghapurana	1 No. bus coupler between 220 bus bar-1 & bus-bar-2		2022-23	2024-25	Work in progress. will spillover.		17.758	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.01	0.45	0.12	3.58	3.01	0.45	0.12	3.58	5.2	0.78	0.208	6.188	5.2	0.78	0.208	6.19	6	0.9	0.24	7.14	6	0.9	0.24	7.14	0	0	0	0	0	0	0	0
		220KV S/S Jhunir	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Talwandi Sabo	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3

Appendix-B

Spill Over Works List

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Reasons	CIP approved for 2nd Control Period (in Cr)	Total Cost of Project	CAPEX during 2021-22				Capitalization during 2021-22				CAPEX during 2022-23				Capitalization during 2022-23				CAPEX during 2023-24				Capitalization during 2023-24				CAPEX during 2024-25				Capitalization during 2024-25				CAPEX during 2025-26				Capitalization during 2025-26			
										CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total			
										Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total
		220KV S/S Sandhwa	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Kalanwali	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Kalanwali	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Bottian Wala	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Hiranakpura	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Abohar	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Dharambat	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Rahuwa Jattan	1 No. bus coupler between 220 bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Kalanwali	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Bottian Wala	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Talwandi Sabo	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Mansa	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Himmatpura	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Jagraon	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2			2025-26				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0.1	0.015	0.004	0.119	0	0	0	0	0	0	0	0	0.1	0.015	0.004	0.119
		220KV S/S Mastuwala	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2			2024-25				0.10	0.01	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.1	0.01	0.004	0.114	0.2	0.03	0.006	0.236	0.2	0.03	0.006	0.24	0.01	0.00	0.00	0.01	0.01	0	0	0.01	0	0	0	0	0	0	0	0

Spill Over Works List

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 2nd Control Period (In Cr)	Total Cost of Project	CAPEX during 2021-22				Capitalization during 2021-22				CAPEX during 2022-23				Capitalization during 2022-23				CAPEX during 2023-24				Capitalization during 2023-24				CAPEX during 2024-25				Capitalization during 2024-25				CAPEX during 2025-26				Capitalization during 2025-26			
										CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total				CAPEX Total				Capitalization Total			
										Works	IDC	IDC	Total	Works	IDC	IDC	Total	Works	IDC	IDC	Total	Works	IDC	IDC	Total	Works	IDC	IDC	Total	Works	IDC	IDC	Total	Works	IDC	IDC	Total	Works	IDC	IDC	Total	Works	IDC	IDC	Total	Works	IDC	IDC	Total
		220KV S/S Lalton Kalan	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2						0.19	0.02	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.02	0	0.21	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Dhanaulad	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2						0.37	0.04	0.00	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.04	0	0.41	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Mandi Gobindgarh G-1	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Chajli	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Dhuri	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Inshal Kalan	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220KV S/S Badshahpur	1 No. bus coupler between 66 kV bus bar-1 & bus-bar-2						0.01	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.02	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		132KV S/S Maga -2 (Dhaliwal)	1 No. bus coupler between 160/20 MVA 132/11 kV T-1 & 20 MVA 132/11 kV T-2						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		132KV S/S Sarwath Bhai	1 No. bus coupler between 20 MVA 132/11 kV T-1 & 160/20 MVA 132/11 kV						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.008	0.24	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220 kV S/S Kalaramak	1 No. bus coupler between 20 MVA 66/11 kV T-2 & 10/12.5 MVA 66/11 kV T-4						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220 kV S/S Pessiana	1 No. 11 kV bus coupler						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.2	0.03	0.008	0.238	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		220 kV S/S Hajjina	1 No. 11 kV bus coupler						0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.2	0.03	0.008	0.24	0.2	0.03	0.008	0.24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	Amendments No.1/F3021-22	Upgradation of 66 kV substation Old Patiala to 220 kV substation.	220/33 MVA, 220/66 kV TIF With- 2 No. 220 kV line bays, 2 No. 10 bays and 1No. Bus coupler bay		2025-26	2025-26	ROW work is substation. Sub-station will be constructed after ROW and right to use by PSPCL		61.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	7	1.05	0.28	8.53	2	0.3	0.08	2.38	13	1.95	0.52	15.47	3	0.45	0.12	3.57	12	1.8	0.48	14.28	27	4.05	1.08	32.13
			LILO of one Ckt. of 220 kV Bahadurgarh- Dhuri(N line (DC on DC 19 km Zebra conductor 420 mm²)		4-2022	03-2025				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.43	1.54	0.96	8.93	0	0	0	0	8.43	1.54	0.96	8.93	0	0	0	0	12.86	3.08	1.92	17.86	0	0	0	0	0	0	0	0	0	0	0	0

Appendix-B

Spill Over Works List

Sr No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 3rd Control Period (in Cr)	Total Cost of Project	CAPEX during 2021-22 (CAPEX Total)				Capitalisation during 2021-22 (Capitalisation Total)				CAPEX during 2022-23 (CAPEX Total)				Capitalisation during 2022-23 (Capitalisation Total)				CAPEX during 2023-24 (CAPEX Total)				Capitalization during 2023-24 (Capitalisation Total)				CAPEX during 2024-25 (CAPEX Total)				Capitalization during 2024-25 (Capitalization Total)				CAPEX during 2025-26 (CAPEX Total)				Capitalization during 2025-26 (Capitalization Total)			
										Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total
4	Amendments No. 19/2021-22	400 KV Sub. Dhanansu	1x500 MVA, additional 400/220 kV ICT at 400 kV Dhanansu along with 400 kV ICT Bay, 2 nos. 400 KV line Bays, 2 nos. 400 kv Tie Bays, 400 kv Future Bay, 220 kv ICT Bay		2023-24	2024-25	Tendering evaluation under progress.		73.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	19	2.85	0.76	22.61	15	2.25	0.6	17.85	19	2.85	0.76	22.61	23	3.45	0.92	27.37	0	0	0	0	0	0	0	0
			LILO of 400 kv Nakodar-Kurukshetra line at 400 Kv Dhanansu with Quad Moose Conductor							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	8.27	2.06	1.16	11.49	0	0	0	0.00	8.27	2.06	1.16	11.49	18.54	4.12	2.32	22.98	0	0	0	0	0	0	0	0
5	Amendment No. 19/2021-22	Evacuation system of Shahpur Kandi Hydel Project	220 kV SSD to 220 kV Shahpur Kandi PH-I (DC on DC, 0.5 sq.in, line length 16 km, LILO length 0.5 km approx),		4.2023	3.2025	Hydel work is delayed.		9.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	5	1.25	0.75	7	0	0	0	0.00	5	1.25	0.75	7	10	2.5	1.5	14	0	0	0	0	0	0	0	0
			220 kV Shahpur Kandi PH-II to 220 kV Sarna (DC on DC, HTLS of 1200 A capacity, line length 10 km approx)		4.2023	3.2025			27.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	5	1.25	0.75	7	0	0	0	0.00	5	1.25	0.75	7	10	2.5	1.5	14	0	0	0	0	0	0	0	0
6	Amendments No 23/2021-22	220kV S/S Jhordan (New) including Substation Automation System SAS at 1 cr.	2x100MVA, 220/66kV S/F with 2 no. 220kV line bays and 1 no. Bus coupler bay including SAS and Civil works.		2022-23	2024-25	Land acquired from panchayat. Route survey is being carried out and drawing work under progress		46.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.15	0.04	1.19	0	0	0	0	16.5	2.475	0.66	19.635	0	0	0	0.00	18.5	2.775	0.74	22.015	36.00	5.4	1.44	42.84	0	0	0	0	0	0	0	0
			LILO of one ckt. Of 220kV Pakhowal Mehal Kalan transmission line (Bold Zebra conductor 420 mm2) at 220kV Jhordan (New)		2023-24	3.2025	Tender for route survey is under process			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	5	1.25	0	6.25	0	0	0	0.00	7	1.75	1.05	9.8	12	3	1.05	16.05	0	0	0	0	0	0	0	0
			4 nos 66kV line bays		2023-24	2024-25	Land acquisition work completed. Drawing work under progress.			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Amendments No. 34/2021-22.	400 kV S/S Behman Jassa Singh	2x500 MVA, additional 400/220 kV ICT at 400 kV Behman Jassa Singh along with 2 no 400 kV ICT Bays, 2 nos. 400 KV line Bays, 2 nos. 400 kv Tie Bays, 400kv Future Bay, 2 no.220 kv ICT Bays, 220 KV Bus-coupler bay, 220 KV Transfer bus coupler bay, 8 nos 220 kv line bays.		2023-24	2025-26	First stage of 400 kV switching yard has been constructed as deposit work by HMEL and 200 MVA connection to HMEL has been released on 400 kV voltage through DC line from Behman Jassa to HPCL refinery. Now 2nd stage of work that is 400kV S/S yard is to be constructed for which tender specifications are being finalised		258.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	31	4.65	1.34	36.99	0	0	0	0.00	63	9.45	2.52	74.97	8	1.2	0.32	9.52	20	3	0.8	23.8	108	15.9	4.24	128.14
			LILO of 400 kv Talwandi Sabo-Nakodar line at 400 Kv Behman Jassa Singh(line length-18 km., Twin Moose conductor (Work and review)		4.2022	3.2025				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	36.79	7.19	4.02	48.00	0	0	0	0	35.99	8.98	5.03	50	64.78	16.17	9.05	90.00	43.18	10.78	6.04	60	43.18	10.78	6.04	60	0	0	0	0	0	0	0	0
			220 KV D/C line (with OPGW) from 400 KV Behman Jassa Singh to 220kV Talwandi Sabo (Line length -8km, 0.4 sq")							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			LILO of 220 KV Mansa-Talwandi Sabo at 220 KV Maur (Line length -8km, 0.4 sq")							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			LILO of both circuits of HPCL Mittal -220 KV Mansa at 220 KV bus of 400 KV Behman Jassa Singh(3x2 KM DC on DC, 0.4sq")							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			220 KV D/C line on D/C towers from 400 kv Behman Jassa Singh to GHGTP Bathinda with multi circuit towers in GHGTP premises (Line length -30km, 0.4 sq")							0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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Spill Over Works List

Appendix-B

Sr.No.	Sr No. as per O/P Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual Anticipated Year of completion	Remarks	DP approved	Total Cost of Project
			4 nos 220 kv bays 2 each at 220 kv Talwandi sabo, Mour & GNDTP						
8	Amendments No.23/2021-22	220 kV S/S Khasar	Augmentation of 1 No. 100 MVA T/F at 220kV S/S Khasar to 160 MVA		2023-24	2023-24	Tender for procurement of TF under process		11.87
9	Amendments No.24/2021-22	220 kV Line Verpal-Patti	Shifting of 220 kV S/C Patti-Verpal line from 220 kV Verpal to 400 kV Amritsar (2km,0.4 sq")		8.2022	3.2024	Tendering work in progress.		3.35
10	Amendments No.23/2021-22	220 kV S/S Mohali-2	220 kV 2 No. Bays		2023-24	2024-25	Will be completed by 24-25		3.13
11	Amendments No.28/2021-22	220 kV S/S Wadala Granthian	Additional 3rd 220/132 kV, 100 MVA Auto T/F		2023-24	2023-24	Tender for procurement of TF under process		11.32
12	Amendments No.29/2021-22	Installation of capacitor banks at Various S/Stns.					Work in progress		12.36
		220K S/S Doraha	4X10.880 MVAR, 66 KV Capacitor Bank at 220K S/S Doraha		2022-23	2023-24			
		220KV S/S Sandhwan	2X10.880 MVAR, 66 KV Capacitor Bank		2022-23	2023-24			
		220KV S/S Dharamkot	2X10.880 MVAR, 66 KV Capacitor Bank		2022-23	2023-24			
		220KV S/S Baner	2X10.880 MVAR, 66 KV Capacitor Bank		2022-23	2023-24			
		220KV S/S Dasuya	2X10.880 MVAR, 66 KV Capacitor Bank		2022-23	2023-24			
		220KV S/S Tibber	2X10.880 MVAR, 66 KV Capacitor Bank		2022-23	2023-24			
		220KV S/S Chogwan	2X10.880 MVAR, 66 KV Capacitor Bank		2022-23	2023-24			
		220KV S/S Chola Sahib	2X10.880 MVAR, 66 KV Capacitor Bank		2022-23	2023-24			
		220KV S/S Bunga	2X10.880 MVAR, 132 KV Capacitor Bank		2022-23	2023-24			

Sr.No. / Particulars	CAPEX during 2021-22 (CAPEX Total) Works	EC	IDC	Total	Capitalisation during 2021-22 (Capitalisation Total) Works	EC	IDC	Total	CAPEX during 2022-23 (CAPEX Total) Works	EC	IDC	Total	Capitalisation during 2022-23 (Capitalisation Total) Works	EC	IDC	Total
4 nos 220 kv bays (contd.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.41	0.57	0.36	3.34	0	0	0	0
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.35	0.65	0.17	5.18	4.35	0.65	0.17	5.18
220K S/S Doraha	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220KV S/S Sandhwan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220KV S/S Dharamkot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220KV S/S Baner	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220KV S/S Dasuya	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220KV S/S Tibber	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220KV S/S Chogwan	0.00	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0.01	0.01
220KV S/S Chola Sahib	0.00	0.00	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0.02	0.02
220KV S/S Bunga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0

Sr.No. / Particulars	CAPEX during 2023-24 (CAPEX Total) Works	EC	IDC	Total	Capitalisation during 2023-24 (Capitalisation Total) Works	EC	IDC	Total	CAPEX during 2024-25 (CAPEX Total) Works	EC	IDC	Total	Capitalisation during 2024-25 (Capitalisation Total) Works	EC	IDC	Total	CAPEX during 2025-26 (CAPEX Total) Works	EC	IDC	Total	Capitalisation during 2025-26 (Capitalisation Total) Works	EC	IDC	Total
4 nos 220 kv bays (contd.)	0	0	0	0	0	0	0	0.00	5	0.75	0.2	5.95	5	0.75	0.2	5.95	0	0	0	0	0	0	0	0
8	10.2	1.53	0.406	12.136	10.2	1.53	0.406	12.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	2.41	0.57	0.36	3.34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	2.2	0.33	0.088	2.618	2	0.3	0.08	2.38	0.3	0.045	0.012	0.357	0.5	0.075	0.02	0.595	0	0	0	0	0	0	0	0
11	10.30	1.55	0.41	12.26	10.30	1.55	0.41	12.26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	6.35	0.9525	0.254	7.5565	6.35	0.9525	0.254	7.56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220K S/S Doraha	0	0	0	0	0	0	0	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Sandhwan	0.01	0.00	0.00	0.01	0.01	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Dharamkot	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Baner	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Dasuya	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Tibber	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Chogwan	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Chola Sahib	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Bunga	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Spill Over Works List

Appendix-B

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 3rd Control Period (in Cr)	Total Cost of Project
		220KV S/S Badal	2X10.800 MVAR, 132 KV Capacitor Bank		2021-22	2023-24			
		220KV S/S Hoshiarpur	6X10.800 MVAR, 66 KV Capacitor Bank		2022-23	2023-24			
		220 KV S/S Kotla Jangan	3X10.800 MVAR, 132KV Capacitor Bank		2022-23	2023-24			
13	Amendment No. 01/2022-23	220 KV Mohaliper (UG from 66 KV substation Mohaliper)	U/G of 66 KV Mohaliper to 220 KV with installation of 2X160 MVA, 220/66 kV transformer (including 2 Nos. line bays, 2 No. T/F bays and 1 No. B/C bay)		2023-24	2024-25	Right to use sought from PSPCL. S/S will be constructed after obtaining right to use and ROW issues as S/S will be in congested area of Zirakpur		38.446
			a. LILO of 220 KV Mohali-2 - Dandani line at 220 kV Mohaliper (U/G from 66 kV) (LILO Length 3.5 km approx., 0.4", D/C on D/C)		10-22	2023-24			4.459
			b. Substation Automation System (SAS) for Rs. 1 Crore,		2023-24	2023-24			1.21
14	Amendment No. 03/2022-23	220K S/S Banur	Augmentation of 1 no. 100 MVA Transformer at 220 KV Sub-station Banur to 160 MVA		2023-24	2023-24	TF procurement under process		11.524
15	Amend 04/22-23	400 KV PGCIL, Amritsar	Shifting of 220KV DC Kotkhera-Verpal line from 220KV Verpal to 400kV Amritsar (3 K.M., 0.4sq")		6.2022	3.2024	Survey tender work in process		0.476
16	Amend 06/22-23	220K S/S MGG-1	Augmentation of 1 no. 100 MVA Transformer at 220 KV Sub-station MGG-1 to 160 MVA		2022-23	2023-24	TF procurement under process		25.049
17	Amend 07/22-23	220K S/S Chilli (UG from 66 KV)	Creation of 220 KV Chilli with 1 x 160 MVA T/F fed from LILO of 220 KV SC line, (2 line bays, 1 T/F bay and 1 B/C bay).		2023-24	2024-25	Right to use not finalised		27.175
			LILO of one ckt. of 400 kV Nakodar – Kartarpur DC line at 220 kV Chilli (LILO length – 2.5 km, 0.4sq")		4.2023	3.2024	Survey tender work in process		
18	Amendment no. 4/22-23	132 KV Nakodar	1 No. 3rd Additional 20 MVA, 132/11 KV T/F		2023-24	2023-24			
		220 KV S/S Bunga	1 No. 3rd Additional 20 MVA 132/11 kV T/F		2023-24	2023-24			
		220 KV Gaunsa	1 No. 3rd Additional 20 MVA 132/11 kV T/F		2023-24	2023-24			

Row	CAPEX during 2021-22 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2021-22 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2022-23 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2022-23 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2023-24 (CAPEX Total) Works	EC	IDC	Total
220KV S/S Badal	0.36	0.05	0.01	0.45	0.36	0.05	0.02	0.45	0.00	0.00	0.00	0.00	0	0	0	0	0.01	0.00	0.00	0.01
220KV S/S Hoshiarpur	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.01	0.00	0.00	0.01
220 KV S/S Kotla Jangan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	0.01	0.00	0.00	0.01
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	13	1.95	0.52	15.47
13 a.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60	0.38	0.24	2.22	1.6	0.38	0.24	2.22	1.6	0.38	0.24	-2.22
13 b.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	1	0.15	0.04	1.19
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	10.2	1.53	0.408	12.138
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40	0.06	0.02	0.48	0	0	0	0	0	0	0	0
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.00	1.50	0.40	11.90	10	1.5	0.4	11.9	10.2	1.53	0.408	12.138
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	13	1.95	0.52	15.47
17 (LILO)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	2.5	0.6	0.37	3.47
18 132 KV Nakodar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	2.20	0.33	0.09	2.62
220 KV S/S Bunga	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	2.20	0.33	0.09	2.62
220 KV Gaunsa	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0	2.20	0.33	0.09	2.62

Row	Capitalization during 2023-24 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2024-25 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2024-25 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2025-26 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2025-26 (Capitalization Total) Works	EC	IDC	Total
220KV S/S Badal	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220KV S/S Hoshiarpur	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV S/S Kotla Jangan	0.01	0.00	0.00	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0.00	19	2.85	0.76	22.61	32	4.8	1.28	38.08	0	0	0	0	0	0	0	0
13 a.	1.6	0.38	0.24	2.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13 b.	1	0.15	0.04	1.19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	10.2	1.53	0.408	12.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	0.4	0.06	0.02	0.48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	10.2	1.53	0.408	12.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0.00	20	3	0.8	23.8	33	4.95	1.32	39.27	0	0	0	0	0	0	0	0
17 (LILO)	2.5	0.6	0.37	3.47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18 132 KV Nakodar	2.20	0.33	0.09	2.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV S/S Bunga	2.20	0.33	0.09	2.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Gaunsa	2.20	0.33	0.09	2.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Spill Over Works List

Appendix-B

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 3rd Control Period (in Cr)	Total Cost of Project
		220 KV Singhawala (Moga)	1 No. 20 MVA 66/11 KV T/F		2023-24	2023-24			
		132 Moga-3 (Dhalleke)	1 No. 3rd Additional 20 MVA 132/11 KVT/F		2023-24	2023-24			
		132 KV Moga-4	1 No. 2nd Additional 20 MVA 132/11 KVT/F		2023-24	2023-24			
		220 KV Gaunsgarh	1 No. 4th Additional 20 MVA 66/11 KVT/F		2022-23	2023-24			
		220 KV Bassi Pathana	1 No. 3rd Additional 20 MVA 66/11 KVT/F		2022-23	2023-24			
		220 KV Humbran	1 No. 3rd Additional 20 MVA 66/11 KVT/F		2022-23	2023-24			
		220 KV Ajitwal	1 No. 3rd Addl. 66/11 KV 12.5 MVA T/F (spare T/F from system to be used).		2023-24	2023-24			
		220 KV Ghulal	Aug. of 1 no. 20 MVA with 31.5 MVA, 66/11 KV		2022-23	2023-24			
		220 KV Amloh	1 No. 4th Additional 20 MVA 66/11 KVT/F		2023-24	2023-24			
		220 KV [illegible] (Dera Bassi)	Aug. of 1 no. 20 MVA with 31.5 MVA, 66/11 KV		2022-23	2023-24			
		220 KV Khanna	1 No. 4th Additional 20 MVA 66/11 KVT/F		2022-23	2023-24			
		220 KV Chogawan	1 No. 3rd Additional 20 MVA 66/11 KVT/F		2022-23	2023-24			
		220 kV Kohara	Aug. of 1 no. 20 MVA with 31.5 MVA, 66/11 KV (Additional 12.5 MVA, 66/11 KV T/F planned in MYT2020-23 Sr. No. 55 may be considered as deleted)		2022-23	2023-24			
		220 KV Civil Lines Amritsar	1 No. 3rd Addl. 66/11 KV 12.5 MVA T/F (spare T/F from system to be used).		2022-23	2023-24			

Particulars	CAPEX during 2021-22 (CAPEX Total)				Capitalisation during 2021-22 (Capitalisation Total)				CAPEX during 2022-23 (CAPEX Total)				Capitalisation during 2022-23 (Capitalisation Total)			
	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total
220 KV Singhawala (Moga)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
132 Moga-3 (Dhalleke)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
132 KV Moga-4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220 KV Gaunsgarh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.05	0.01	0.42	0.35	0.05	0.01	0.42
220 KV Bassi Pathana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.05	0.01	0.42	0.35	0.05	0.01	0.42
220 KV Humbran	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.05	0.01	0.42	0.35	0.05	0.01	0.42
220 KV Ajitwal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220 KV Ghulal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.01	0.24	0.20	0.03	0.01	0.24
220 KV Amloh	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
220 KV [illegible] (Dera Bassi)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.01	0.24	0.20	0.03	0.01	0.24
220 KV Khanna	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.04	0.01	0.30	0.25	0.04	0.01	0.30
220 KV Chogawan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.03	0.01	0.24	0.20	0.03	0.01	0.24
220 kV Kohara	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.08	0.02	0.60	0.50	0.08	0.02	0.60
220 KV Civil Lines Amritsar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.04	0.01	0.30	0.25	0.04	0.01	0.30

Particulars	CAPEX during 2023-24 (CAPEX Total)				Capitalisation during 2023-24 (Capitalisation Total)				CAPEX during 2024-25 (CAPEX Total)				Capitalisation during 2024-25 (Capitalisation Total)				CAPEX during 2025-26 (CAPEX Total)				Capitalisation during 2025-26 (Capitalisation Total)			
	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total	Works	EC	IDC	Total
220 KV Singhawala (Moga)	2.20	0.33	0.09	2.62	2.20	0.33	0.09	2.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 Moga-3 (Dhalleke)	2.20	0.33	0.09	2.62	2.20	0.33	0.09	2.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
132 KV Moga-4	2.20	0.33	0.09	2.62	2.20	0.33	0.09	2.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Gaunsgarh	2.00	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Bassi Pathana	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Humbran	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Ajitwal	1.2	0.18	0.05	1.428	1.20	0.18	0.05	1.43	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Ghulal	3	0.45	0.12	3.57	3	0.45	0.12	3.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Amloh	2.3	0.35	0.08	2.737	2.3	0.35	0.08	2.74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV [illegible] (Dera Bassi)	3	0.45	0.12	3.57	3	0.45	0.12	3.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Khanna	2	0.3	0.08	2.38	2	0.3	0.08	2.38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Chogawan	2.20	0.33	0.09	2.62	2.20	0.33	0.09	2.62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 kV Kohara	3	0.45	0.12	3.57	3	0.45	0.12	3.57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
220 KV Civil Lines Amritsar	1.2	0.18	0.05	1.428	1.20	0.18	0.05	1.43	0.00	0.00	0.00	0.00	0	0	0	0	0	0	0	0	0	0	0	0

Appendix-B

Spill Over Works List

Sr.No.	Sr No. as per CIP Order	Particulars	Network Addition	Scope of Work	Project Start Date	Actual/ Anticipated Year of completion	Remarks	CIP approved for 3rd Control Period (in Cr)	Total Cost of Project
18	Amendment 10/22-23	Rearrangement of connectivity of Transmission lines in Patiala Circle to control the existing overloading of certain lines	a. Termination of 220 kV Rajpura - 400 kV Rajpura Majra circuit at 220 kV Dhuri/Bahadurgarh		4.22	2023-24	Tender for route survey is being floated		24.883
			b. Connecting 220 kV Devigarh to 220 kV Rajpura		4.22	2023-24			
			c. Connecting 400 kV Rajpura to 220 kV Rajpura (including new link of approx. 5 km length, D/C on D/C)		4-22	3.24			
			d. Connecting 400 kV Rajpura to 220 kV Mohali-I (one circuit direct and one circuit via 220 kV Banur, on D/C line, including new link of approx. 9km length, D/C on D/C)		4-22	3.24			
			e. 2 Nos. 220 kV bays at 400 kV Rajpura		2023-24	2023-24			
			f. 220 kV Side bus extension arrangement to be made at 400 kV Rajpura for providing suitable space for 2 Nos 220 kV Bays		2023-24	2023-24			
Total (D)									783.39
GRAND TOTAL									
P&M Works									
1	6	Tan Delta and Resistive kit for testing of Transformer oil	-	-	-	-	Work in progress; tender under consideration of CPC/P&M, work will spill over to next CP of MYT	0.45	-
2	7	PT/CVT testing kit for OCTL	-	-	-	-	Will spill over to 3rd CP as most of the firms are multinational and demo kits could not be arranged due to COVID in Europe	0.39	-
3	9	Remote Control operation of 400kV S/S's Muktsar, Nakodar and Makhu	-	-	-	-	Work will be spill over to 3rd CP of MYT as this work was linked with completion of OPGW work on 400 kV TSPL- Muktsar section, Muktsar- Makhu section and Makhu Nakodar sections	1.76	-
4	10	Online partially discharge kit equipment for 400 kV ICT at 400kV S/s. (14 No.)	-	-	-	-	Work will Spill over to 3rd CP as requirements are site specific. Proposals to implement the project by prospective bidders could not materialize as sufficient prospective implementers could'nt visit sites due to COVID pandemic.	16.19	
5	11	GIM- Contact Resistance measurement meter for maintenance gangs	-	-	-	-	Work will Spill over to 3rd CP low competition was observed in tendering and case will be re-tendered	1.00	-
6	18	Providing RCC Roads in 220kV S/S to facilitate movement of heavy vehicle loaded with equipment.	-	-	-	-	By end of 31-3-23 the expenditure will be Rs 7.21 Cr and balance work of 3.7 cr will spill over to next CP	10.91	
7	19	Providing PCC in the yard area in 220kV S/s	-	-	-	-	By end of 31-3-23 the expenditure will be Rs 6.00 Cr and balance work of 5.02 Cr will spill over to next CP	11.02	
8	7 no. of table 11	OPGW laid by PGCIL under package V on turnkey basis	-	-	-	-	work is being done by PGCIL and will spill over to 3rd CP. Earlier approved by PSERC in SLDC business at Sr No.7 but now being shifted to P&M as communication Design wing has been shifted to P&M org	6.00	
Total (E)								47.71	
Total Spill over of Transmission works								1232.64	

Item	CAPEX during 2021-22 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2021-22 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2022-23 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2022-23 (Capitalization Total) Works	EC	IDC	Total
a	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.06	0.04	0.35	0	0	0	0
b	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.08	0.08	0.52	0.37	0.09	0.055	0.515
c	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.83	0.63	0.39	3.85	0	0	0	0
d	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.88	0.68	0.55	5.11	0	0	0	0
e	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0	0	0
f	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0	0	0	0
Total (D)	1.06	0.12	0.05	1.23	0.38	0.05	0.02	0.45	81.93	16.62	8.02	105.99	33.43	5.36	1.57	40.36
GRAND TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
P&M 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 6	3.11	0.00	0.00	3.11	3.11	0.00	0.00	3.11	4.1	0.00	0.00	4.1	4.1	0.00	0.00	4.1
P&M 7	3.06	0.00	0.00	3.06	3.06	0.00	0.00	3.06	2.94	0.00	0.00	2.94	2.94	0.00	0.00	2.94
P&M 8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total (E)	6.17	0.00	0.00	6.17	6.17	0.00	0.00	6.17	7.04	0.00	0.00	7.04	7.04	0.00	0.00	7.04
Total Spill over of Transmission works																

Item	CAPEX during 2023-24 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2023-24 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2024-25 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2024-25 (Capitalization Total) Works	EC	IDC	Total	CAPEX during 2025-26 (CAPEX Total) Works	EC	IDC	Total	Capitalization during 2025-26 (Capitalization Total) Works	EC	IDC	Total
a	0.25	0.06	0.035	0.345	0.5	0.12	0.07	0.69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
b	0.37	0.09	0.055	0.515	0.37	0.09	0.055	0.52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
c	2.83	0.63	0.39	3.85	5.38	1.26	0.78	7.30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
d	3.88	0.68	0.55	5.11	7.36	1.76	1.1	10.22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
e	6	0.9	0.24	7.14	6	0.9	0.24	7.14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
f	0.1	0.015	0.004	0.119	0.1	0.015	0.004	0.12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total (D)	312.18	54.28	19.71	386.18	240.94	44.37	18.28	303.59	232.36	41.64	16.31	290.34	251.09	47.96	20.19	319.24	32.00	4.80	1.28	38.08	133.10	19.97	5.32	158.39
GRAND TOTAL	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
P&M 1	0.45	0	0	0.45	0.45	0	0	0.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 2	0.39	0	0	0.39	0.39	0	0	0.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 3	1.76	0	0	1.76	1.76	0	0	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 4	5.57	0	0	5.57	5.57	0	0	5.57	5.88	0	0	5.88	5.88	0	0	5.88	4.74	0	0	4.74	4.74	0	0	4.74
P&M 5	1.00	0	0	1.00	1.00	0	0	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 6	3.7	0.00	0.00	3.7	3.7	0.00	0.00	3.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 7	3.02	0.00	0.00	3.02	3.02	0.00	0.00	3.02	2.00	0.00	0.00	2.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P&M 8	1.83	0.00	0.00	1.83	1.83	0.00	0.00	1.83	2.13	0.00	0.00	2.13	2.13	0.00	0.00	2.13	2.04	0.00	0.00	2.04	2.04	0.00	0.00	2.04
Total (E)	17.72	0.00	0.00	17.72	17.72	0.00	0.00	17.72	10.01	0.00	0.00	10.01	10.01	0.00	0.00	10.01	6.78	0.00	0.00	6.78	6.78	0.00	0.00	6.78
Total Spill over of Transmission works				965.96				1094.76				560.05				613.21				169.06				398.33

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APPENDIX-C

New Transmission Works Planned for 3rd Control Period (2023-26)

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST												CAPITILISATION COST											
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@1 5%	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 15%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
TS Works																															
1	220 kV S/S GNDTP	Additional 160 MVA, 220/66 kV transformer including 66kV busbar extension (2x50MVA 132/66KV will be spared)	The local Bathinda-Gidderbaha- Malout area is primarily fed from 220 kV Maur, Muktsar and GNDTP substations via 132 kV sub-stations of this area. In case of failure of any one source, the total supply fails, leading to blackout. So to give relief to 132 kV system, 66 kV loads are planned to be shifted from 132 kV system to 220 kV system. This will also eliminate one additional step of 132/66 kV transformers thereby reducing transformation losses.	12.36	1.85	0.49	14.71	12.36	1.85	0.49	14.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.71	12.36	1.85	0.49	14.71									14.71
2	Upgradation of 66 kV Bhalaiana to 220 kV sub-station	Creation of 220kV Bhalaiana with 2x100MVA, 220/66kV T/F (2 line bays, 2 T/F bays & 1no. Bus Coupler bay) LILO of S/C 220 kV Muktsar – 220 kV Malout line (LILO length 1km, 0.4Sq").	This S/S has been proposed by PSPCL & is situated in the center of Muktsar & Bathinda. This S/S will give relief to 132kV Muktsar, GNDTP, Malout & 220KV Muktsar. PSPCL will connect 66 kV link from Bhalaiana to Dode and Kauni to deload 3X100 MVA, 220 /132 KV auto transformers at 220 kV Muktsar along with 132 KV link lines between 220 KV Muktsar and 132 KV Muktsar. At this S/S the 2nd 100 MVA T/F will be installed after sparing 100 MVA Power T/F from some other work where the agumentation of 100MVA to 160MVA is planned.	26.99	4.05	1.08	32.12	2.70	0.40	0.11	3.21	5.40	0.81	0.22	6.42	8.10	1.21	0.32	9.64	19.27													0.00
3	Upgradation of 66 kV Guru Har-sahai to 220 kV sub-station	Creation of 220kV Guru Har-sahai with 2x100MVA , 220/66kV T/F (4 line bays at Guru Har Sahai, 2bays each at Ghubaya & Jhoke Hari Har, 2 T/F bays & 1no. bus coupler bay) D/C line from 220 kV Ghubaya and D/C line from 220 kV Jhoke Hari Har (Line length (35km & 30km, 0.4Sq").	PSPCL had proposed upgradation of 66 kV S/S Jiwan Arian to 220 kV S/S to deload 220 kV S/S Ghubaya but as the transfer of land owned by Village Panchayat has not matured for upgradation of 220 kV S/S Jiwan Arian so nearby 66 kV Guru Harsahai was agreed upon for upgradation to a 220 KV S/S by both PSTCL and PSPCL to deload Ghubaya and Sadiq in TPC meeting dated 19.07.2022. This S/S would be connected by D/C from 220 KV Ghubaya and 220 KV Jhoke Harihar. At this S/S the 2nd 100 MVA T/F will be installed after sparing 100 MVA Power T/F from some other work where the agumentation of 100MVA to 160MVA is planned. The initial towers at Guru Harsahai will be multi circuit towers to address the issue of ROW. As per PSERC notification dated 5/11/2018 (Annexure-A) intra-state-transmission project costing more than Rs. 50Cr. are to be developed through TBCB. Cost of this project is more than 50Cr, but work being a brown field project and technical upgradation as such exemption may be given from TBCB in line with Ministry of Power, Govt. of India Letter no. 15/2/2017-Trans-Pt(1) dated 15.3.2021 (Annexure-B)	111.26	16.69	4.45	132.40	11.13	1.67	0.45	13.24	22.25	3.34	0.89	26.48	33.38	5.01	1.34	39.72	79.44									0.00	0.00	0.00	0.00	0.00
4	Upgradation of 132 kV Samadh Bhai to 220 kV level	Creation of 220kV Samadh Bhai with 1x100MVA , 220/132kV T/F (4 line bays, 1 T/F bay & 1no. Bus Coupler Bay) LILO of both circuits of 220 kV Baghapurana – Bajakhana line (LILO Length - 8km, 0.4Sq").	This S/S will give relief to 220 kV Himmatpura by shifting of load of 66 KV Deena Sahib and 66 KV Patto Hira. In addition, it will provide second source of supply to 132 kV Ghollan Kalan and Smadh Bhai, which are now radially fed from 220 kV Moga and face blackout in case of tripping of 132 KV S/C line from 220 KV Moga	33.76	5.06	1.35	40.17	6.75	1.01	0.27	8.03	10.13	1.52	0.41	12.05	16.88	2.53	0.68	20.09	40.17									33.76	5.06	1.35	40.17	40.17
5	Upgradation of 66 kV Chaherhu to 220 kV level (2nd 100MVA, 220/66kV T/F for N-1)	Creation of 220kV Chaheru with 2x100MVA , 220/66kV T/F (4 line bays, 2 T/F bays & 1no. Bus coupler bay) LILO of 400 kV Nakodar – 220 kV Hoshiarpur and Nakodar - Rehana Jattan 220 kV Ckts at Proposed 220kV S/S Chaheru (LILO Length - 6km + 6km, 0.4 Sq")	This S/S is proposed by PSPCL to cater load growth and to give relief to Jamaher, Phagwara and Rehana Jattan as agreed upon in the TPC meeting (Sr. no. 8 of Table-15). At this S/S the 2nd 100 MVA T/F will be installed after sparing 100 MVA Power T/F from some other work where the agumentation of 100MVA to 160MVA is planned.	42.87	6.43	1.71	51.02	4.29	0.64	0.17	5.10	8.57	1.29	0.34	10.20	12.86	1.93	0.51	15.30	30.61													0.00

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST										CAPITILISATION COST									
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 5%	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 15%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
6	Upgradation of 66 kV Gill Road Ludhiana to 220 kV level (Under Study)	Creation of 220kV Gill Road Ludhiana with 2X160MVA 220/66KV T/F (4 line bays (2 at Proposed Gill road and 2 at Ferozpur road), 2 T/F bays & 1no. bus coupler bay)	PSPCL proposed up-gradation of 66 kV Gill Road to 220 kV S/S which will give relief to overloaded 66 KV Lalton Kalan-Gill road D/C lines as up-gradation of conductor of these lines to HTLS is not possible as line passes over very thickly populated areas and it was agreed upon in the TPC meeting (Sr. No. 7 of Table-12) to include the work in 3rd CP of MYT 23-26 subject to the demolition of the 1912 complaint center and offices of DS organisation.	0.20	0.03	0.01	0.24	0.20	0.03	0.01	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.20	0.03	0.01	0.24								0.24
		D/C line (8km, 0.45sq") from 220 kV Ferozepur Road Ludhiana on multi circuit towers/modern techniques.	Under study due to complication of ROW. Route is being studied by using modern technology like monopoles/multi-circuit towers.Once the route is finalised, PSERC will be approached through petition during the course of next MYT.																												
7	Upgradation of 66 kV Bija/Chawa to 220 kV level	Creation of 220kV Bija/Chawa with 2x100MVA, 220/66kV T/F (2 nos. line bays, 2 T/F bays & 1no. Bus Coupler bay)	Proposal of this substation was received from PSPCL for upcoming loads in and around Sahnewal/ Doraha to cater to the industry in the TPC meeting. Loads to be shifted on 220 kV Bija are 66 kV Bija, Bahomajra, Ralson & Apparel Park to give relief to 220KV Doraha S/S and cater to the upcoming loads in the area. At this S/S the 2nd 100 MVA T/F will be installed after sparing 100 MVA Power T/F from some other work where the agumentation of 100MVA to 160MVA is planned.	46.17	6.03	1.81	47.80	4.02	0.60	0.16	4.78	8.03	1.21	0.32	9.56	12.05	1.81	0.48	14.34	28.68													9.00
		LILO of one circuit of upcoming Dhanaau - Doraha 220 KV line at Bija (12km, 0.4Sq")																													
8	Upgradation of 66 kV Bhadson to 220 kV level	Creation of 220kV Bhadson with 2x100MVA, 220/66kV T/F (6 line bays (2 at Amloh and 4 at Bhadson), 2 T/F bays & 1no. Bus Coupler Bay)	Proposed by PSPCL to give relief to 220KV Amloh by shifting of 66 KV loads from 220 kV Amloh to Bhadson. Upcoming connections can be released by PSPCL from Amloh. It will also provide new source of power evacuation from 400 kV PGCIL Patiala where new 500 MVA ICT is being installed, this will give relief to existing sources of power in Amloh area, i.e 400 KV Malerkotla and 400 KV Rajpura At this S/S the 2nd 100 MVA T/F will be installed after sparing 100 MVA Power T/F from some other work where the agumentation of 100MVA to 160MVA is planned. As per PSERC notification dated 5/11/2018 (Annexure-A) intra-state-transmission project costing more than Rs. 50Cr. are to be developed through TBCB. Cost of this project is more than 50Cr. but work being a brown field project and techical upgradation as such exemption may be given from TBCB Mode in line with Ministry of Power, Govt. of India Letter no. 15/2/2017-Trans-Pt(1) dated 15.3.2021 (Annexure-B)	64.49	9.67	2.58	76.74	12.90	1.93	0.52	15.35	19.35	2.90	0.77	23.02	32.25	4.84	1.29	38.37	76.74													76.74
		D/C line from 400 kV PGCIL Patiala (16km, 0.45q") and D/C line from 220 kV Amloh (12km, 0.45q").																													
9	Upgradation of 66 kV Chourwala to 220 kV level	Creation of 220kV Chourwala with 2x160MVA, 220/66kV T/F (4 line bays, 2 T/F bays & 1no. Bus Coupler Bay)	This substation has been proposed by PSPCL to give relief to 220 kV substation G-1 to facilitate the release of load connections in Mandi Gobindgarh area from G-1 as no further expansion of G-1 S/S is possible. Currently Chourwala/Sirhind areas are fed from G-1/G-4 S/Ss and one thees areas are shifted to Chourwala a relef of about 100 MVA would be available at G-1 S/s. As per PSERC notification dated 5/11/2018 (Annexure-A) intra-state-transmission project costing more than Rs. 50Cr. are to be developed through TBCB. Cost of this project is more than 50Cr. but work being a brown field project and techical upgradation as such exemption may be given from TBCB mode in line with Ministry of Power, Govt. of India Letter no. 15/2/2017-Trans-Pt(1) dated 15.3.2021 (Annexure-B)	57.18	8.58	2.29	68.04	11.44	1.72	0.46	13.61	17.15	2.57	0.69	20.41	28.59	4.29	1.14	34.02	68.04													68.04
		LILO of both circuits of 400 kV Rajpura – 220 kV Gobindgarh-1 line (HTLS) (8 km, 0.4Sq" HTLS equivalent)																													

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	IDC@15%	IDC@4%	Project Cost	CAPEX COST											CAPITILISATION COST										
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 10%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 5%	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 10%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 10%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 10%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
10	Upgradation of 66 kV Toot to 220 kV level.	Creation of 220kV Toot with 2x100MVA, 220/66kV T/F (2 line bays, 2 T/F bay & 1no. Bus Coupler Bay) LILO of one circuit of 400 kV Malkhu – 220 kV Algon line at Proposed 220kV s/s Toot (7km, 0.4Sq")	Proposed by PSPCL to give relief to 220kV Patti and additionally no space is available at 220 kV Patti to establish a 66 kV bay for second circuit to 66 kV Toot from 220 kV Patti S/S. The proposal was agreed upon in the in the TPC meeting by both PSPCL and PSTCL (Sr. No. 12 of Table-4) At this S/S the 2nd 100 MVA T/F will be installed after sparing 100 MVA Power T/F from some other work where the agumentation of 100MVA to 160MVA is planned.	34.18	5.13	1.37	40.67	3.42	0.51	0.14	4.07	6.84	1.03	0.27	8.13	10.25	1.54	0.41	12.20	24.40											0.00
11	Double bus arrangement at 220 kV Mandi Gobindgarh – 2		Proposed by Chief Engineer/P&M, PSTCL to provide reliability of supply to industrial consumers by providing a 220 kV double bus bar as per the CEA norms as in case of failure of single available bus there is a complete blackout.	14.09	2.10	0.56	16.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.00	2.10	0.56	16.66	16.66				0.00	0.00	0.00	0.00	14.00	2.10	0.56	16.66	16.66
12	Upgradation of 132 kV Jandiala Guru to 220 kV level	Creation of 220kV Jandiala Guru with 2x100MVA, 220/132kV T/F (2 line bays, 2 T/F bays & 1no Bus Coupler Bay) LILO of 220 kV Butari – Verpal circuit on multi-circuit Tower/Modern techniques at Jandiala Guru (4km, 0.4Sq")	To address the problems in the walled city of Amritsar a committee was constituted by Director/T. As per recommendation of committee to give reliable supply to Amritsar city it was proposed to upgrade Jandiala by shifting auto transformer 220/132 kV 100 MVA being spared from Butari to inject power at Verka to provide reliable supply in event of constraints in Batala-Verka D/C line or 132 KV bus at Verpal. PSTCL & PSPCL agreed to the proposal in the TPC meeting (Sr. No. 6 of Table-6 of MOM) . In this case the 1 No. 220/132 kV auto T/F will be shifted from Butari, after the commissioning of 220 kV Bees.	35.12	5.27	1.40	41.79	7.02	1.05	0.28	8.36	10.54	1.58	0.42	12.54	17.56	2.63	0.70	20.90	41.79									35.12	5.27	1.40	41.79	41.79
13	Upgradation of 132 kV Tanda to 220 kV level	Creation of 220kV Tanda with 1x100MVA, 220/132kV T/F and 1x100MVA, 220/66kV T/F (2 line bays, 2 T/F bays & 1no. Bus Coupler Bay) LILO of S/C 220 kV BBMB Jalandhar-Dasuya line (4.5Km, 0.4Sq")	Proposed by P&M, PSTCL with one 220/132 KV auto-transformer, to provide cushioning effect to the sharp drop in voltage at MHP/Tanda/Bhogpur areas. This voltage drop sometimes leads to tripping of machines causing blackout. In addition to it, it will give relief to the 132 kV system in Tanda/Bhogpur belt when there is no generation at MHP as being a run of the river plant, it faces frequent problems of silt. Apart from it other two sources feeding this area are almost fully loaded i.e BBMB Jalandhar and 132 kV Hamirpur-Chehal line. PSPCL apprised that 132/66 kV transformers at Bhogpur are fully loaded i.e more than 90% and two 66kV stations Kandhala Jattan and Kalyanpur will be shifted from 132 kV Bhogpur to 132 kV Tanda, for which one 100 MVA, 220/66 kV T/F is also required.	36.71	5.51	1.47	43.68	7.34	1.10	0.29	8.74	11.01	1.65	0.44	13.11	18.36	2.75	0.73	21.84	43.68									36.71	5.51	1.47	43.68	43.68

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST												CAPITILISATION COST									
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@1 5%	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 15%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
14	Upgradation of 132 kV Sri Hargobindpur to 220 kV level (1X100 MVA 220/132 kV + 1x100 220/66 KV already planned 3rd 220/132 kV Auto transformer at Wadala Granthen be dropped) (132 kV line from WG and 132/66 KV TFs will be spared)	Creation of 220kV Sri Hargobindpura with 1x100MVA, 220/132kV & 1x100MVA, 220/66kV T/Fs (2 line bays, 2 T/F bays &1no. Bus Coupler Bay) 220 KV D/C Line From Proposed 400 KV S/S Wadala Granthian (28km, 0.45q*)	This work is required for evacuation of downstream network of 400 kV Wadala Granthian. In addition it will address the problems of constraints at MHP when all the machines are shut due to low water or high silt as MHP is a run off the river project. PSTCL & PSPCL agreed on this as per Sr. no. 2 of Table-6 and Sr. No 5 of supplementry agenda in MOM of TPC. Apart from this auto-transformers at Wadala granthian are fully loaded. Keeping in view the ROW issues, some towers near the S/S will be multi circuit towers and the work of sub-station shall be taken in hand when major work of transmission line is complete. As per PSERC notification dated 5/11/2018 (Annexure-A) Intra-state-transmission project costing more than Rs. 50Cr. are to be developed through TBCB. Cost of this project is more than 50Cr. but work being a brown field project and technical upgradation as such exemption may be given from TBCB Mode in line with Ministry of Power, Govt. of India Letter no. 15/2/2017-Trans-Pt(1) dated 15.3.2021 (Annexure-B)	67.31	10.10	2.69	80.10	6.73	1.01	0.27	8.01	13.46	2.02	0.54	16.02	20.19	3.03	0.81	24.03	48.06												
15	Re-arrangement to provide 2nd connectivity to 220 kV S/s Narsingarh	Double circuit from 220kV Khassa-Chogawan, 12 Km, 0.4 Sq* Disconnecting 220kV Khassa - Civil Line ASR circuit and Chogawan- Khassa circuits from Khassa and diverting them to Narsingarh 1 no. circuit between 220kV Chogawan - Narsingarh and 1no. circuit between 220kV Civil Line ASR - Narsingarh, D/c line with 12.5 Km 0.45q*	As per report of Committee constituted to provide reliable supply to the city of Amritsar, the committe recommended to provide second source of supply to 220 KV Narsingarh which is now a radial station because in case towers of the existing line fall, there will be complete black out in major part of Amritsar city. So a re-arrangement has been proposed to further link Narsingarh to Chogawan/Civil Lines.	45.44	6.82	1.82	54.07	9.09	1.36	0.36	10.81	13.63	2.04	0.55	16.22	22.72	3.41	0.91	27.04	54.07	9.09	1.36	0.36	10.81	13.63	2.04	0.55	16.22	22.72	3.41	0.91	27.04	54.07
16	220 kV S/S Bajakhana	Double bus arrangement at Bajakhana	Bajakhana evacuates power from GHTP and PGCIL Moga, so to provide reliability of supply, double busbar of 220 kV is proposed as per the requirement of Chief Engineer P&M, PSTCL	16.50	2.48	0.66	19.64	8.25	1.24	0.33	9.82	8.25	1.24	0.33	9.82	0.00	0.00	0.00	0.00	19.64					16.50	2.48	0.66	19.64	0.00	0.00	0.00	0.00	19.64
17	220KV S/S Goraya (Addl. 220/66KV 100MVA T/F for N-1 compliance)	Connectivity of 220KV Noormehal with 220KV Goraya with D/C line (length - 25km, 0.45q*) (LILO of both circuits of BBMB Jalandher-Jamalpur line at Goraya subject to approval of Power Sub-committee of BBMB)	To provide 2nd source of supply to Nurmehal as now it is fed radially from 400 KV Nakodar. In case towers of the existing line fall, there will be complete black out in Nurmehal area. Apart from this when GGSSTP Ropar is down, Goraya is fed from Jamsher via Kotla Jungs-Kartarpur-PGCIL Jalandher. If Nurmehal is connected to 400 kV Nakodar via Nurmehal, flows from Jamsher will reduce and it will give relief to 220 kV PGCIL Jalandher-Kartarpur D/C line. LILO of both circuits of BBMB Jalandher-Jamalpur line at Goraya (if approved by Power Sub-committee of BBMB) will give relief to both Jalandhar and Ludhiana focal point/industrial belts when generation of BBMB in lean period is down i.e at Pong, Bhakra, Ganguwal and Dehar.	43.97	6.60	1.76	52.33	8.79	1.32	0.35	10.47	21.99	3.30	0.88	26.16	13.19	1.98	0.53	15.70	52.33									43.97	6.60	1.76	52.33	52.33

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST												CAPITALISATION COST											
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15%	IDC@4%	TOTAL (T1)	Cost	EC@15%	IDC@4%	TOTAL (T2)	Cost	EC@15%	IDC@4%	TOTAL (T3)	T1+T2+T3	Cost	EC@15%	IDC@4%	TOTAL (T1)	Cost	EC@15%	IDC@4%	TOTAL (T2)	Cost	EC@15%	IDC@4%	TOTAL (T3)	T1+T2+T3
18	400KV Wadala Granthian	**Stage 1:** Creation of 400kV Wadala Granthian with 2x500MVA, 400/220kV ICTs (2no. 400 kV line bays, 2no. 400 kV ICT bays, 2 no. 400 kV Tie Bays, 4 no. 220 kV Line baya, 4 no. 220 kV bus interconnection bay, 2 no. 220 kV ICT bays, 1 no. 220 kV TBC bay, 1 no. 220 kV BC bay) LILO of 1 circuit of 400 kV Moga - Kisharpur line (20km, Quad Moose)	To enhance ATC/TTC limit of Punjab. Cost of this project is more than 50 Cr. but work being a brown field project (land of existing 220kV S/S Wadala Granthian is to be used) and techical upgradation as such exemption may be given from competitive bidding in line with Ministry of Power, Govt. of India Letter no. 15/2/2017-Trans-Pt(1) dated 15.3.2021 (Annexure-B) (Expenditure: 25% in 2024-25; 25% in 2025-26 and balance 50% to spill over in 26-27.)	303.22	45.48	12.13	360.83		0.00	0.00	0.00	75.81	11.37	3.03	90.21	75.81	11.37	3.03	90.21	180.42											
		Stage 2: Addl. 1X500 MVA, 400/220 kV ICT (2 line bays, 1 ICT bays & 2 no. Tie Bays) LILO of 2nd circuit of 400 kV Moga - Kisharpur line (20km, Quad moose)																													
19	400 kV Makhu	To give second ISTS connectivity	Under Study	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00									0.00	0.00	0.00	0.00	0.00
20	220 kV Sultanpur	LILO of one circuit 220 kV Kanjli-Science city at 220 kV Sultanpur with Moose conductor (28Kms, 0.5 Sq")	To provide 2nd source of supply to 220 kV Science city as now it is fed radially from 220 kV Kanjli. In case towers of the existing line fall, there will be complete black out in some area of Jalandhar.	40.60	6.09	1.62	48.31	0.00	0.00	0.00	0.00	20.30	3.05	0.81	24.16	20.30	3.05	0.81	24.16	48.31									40.60	6.09	1.62	48.31	48.31
21	To provide second source to 220 kV S/S Badhni Kalan		Under study	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
22	220 kV Jadla	LILO of MISS Ganguwal-Dhanarau at Jadla (2 km, 0.4")	When GGSSTP Ropar is down Goraya/Banga/Jadla are fed from Jamsher via Kotla Junga- Kartarpur- PGCIL Jalandhar, thereby overloading the system. This will give additional source of power especially to Jadla/ Banga S/S's from Ganguwal and 400 KV Dhanarau	4.85	0.73	0.19	5.77	0.00	0.00	0.00	0.00	2.43	0.36	0.10	2.89	2.43	0.36	0.10	2.89	5.77									4.85	0.73	0.19	5.77	5.77
23	220KV PGCIL, Panchkula (Barwala) - Derabassi Line	220KV PGCIL Panchkula (Barwala)-Derabassi Line (DIC) (14km, 0.4Sq")	To feed upcoming loads in Lalru, Mubarikpur, Dera Bassi belt, additional source of supply is required to give relief to 400 KV Rajpura-Lalru circuits and Nalagarh-Mohali circuits. Tripping of Mohali-2 to Lalru circuit will cause constraint on Lalru-Dera bassi-Mubarakpur-Mohali2 S/C line. Subject to the approval of NRPC.	22.23	3.33	0.89	26.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22.23	3.33	0.89	26.45	26.45									22.23	3.33	0.89	26.45	26.45
24	Strengthening of Verka-Mall Mandi Link and to establish link with Civil Lines ASR	(A) Disconnecting 132 kV Verka - Mal Mandi link and 132 kV Verka - Jayantipura link.	In case of failure of supply from Verpal, additional source of power from spare available capacity at 220 KV Civil Lines Amritsar not only to Mall Mandi but also Kathunangal and Jayantipur to de-load 132 KV Verpal-Gurdaspur Line.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		(B) Connecting 132 kV Mal Mandi with 132 kV Jayantipur.		16.59	2.49	0.66	19.74	16.59	2.49	0.66	19.74									19.74	16.59	2.49	0.66	19.74								19.74
		(C) Connecting 132 kV Civil lines ASR with 132 kV Verka. (overhead 15 km + 1 km modern techniques)		12.08	1.81	0.48	14.38	12.08	1.81	0.48	14.38									14.38	12.08	1.81	0.48	14.38								14.38
		(D) Connecting 132 kV Civil lines ASR with 132 kV Mal Mandi. (overhead 26 km + 1 km underground)		26.89	4.03	1.08	32.00					26.89	4.03	1.08	32.00					32.00					26.89	4.03	1.08	32.00				32.00

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								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@15 %	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 15%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
25	Requirement of Capacitor bank at various S/Stns as per CPRI report.	Under study as per CPRI report	Final CPRI report on system studies of capacitor requirement in Northern region for the year 2019-20 has been received wherin additional net capacitor banks for Punjab at various sub-stations has been recommended. in view of this, PSTCL is working to finalise the net requirement of capacitor banks to meet with the requirement of above recommendations. Further, PSTCL has started the installation of available 132 kV capacitor banks at various substations of PSTCL. PSDF funding shall also be explored.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
26	400 kV Rajpura	4th 500 MVA additional T/F	To achieve ATC/TTC limit of 10000/10500 MW	32.00	4.80	1.28	38.08	5.00	0.75	0.20	5.95	27.00	4.05	1.08	32.13		0.00	0.00	0.00	38.08					32.00	4.80	1.28	38.08					38.08
27	To curtail overloading during N-1 conditions of Sherpur-Nangra-Pathankot corridor	Under Study	PSDF funding, if permissible shall be availed.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
28	S/C on D/C line from 400 kV Dhuri to 220 kV Bhawanigarh. Bay available at 400 kV Dhuri (18 km)		To provide 2nd source of supply to 220 kV Bhawanigarh as now it is fed radially from 220 kV Nabha. To avoid any blackout at Bhawanigarhin due to exigency on existing Bhawanigarh-Nabha circuit .	20.07	3.01	0.80	23.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.07	3.01	0.80	23.88	23.88								20.07	3.01	0.80	23.88	23.88
29	220 kV Hoshiarpur	2nd source connectivity to Hoshiarpur via D/C on D/C line 220 kV Dasuya-Hoshiarpur (40 km, 0.4 sq") & using existing MC/ct Towers	To provide 2nd source of supply to Hoshiarpur as now it is fed radially from 400 kV Nakodar. In case towers any exgency on existing line, there will be complete blackout in areas of Hoshiarpur. Existing multi circuit towers will be used at entry point of Hoshiarpur and 132 kV Bhogpur line will be bypassed to Mahilpur by using one circuit of Mahilpur D/C line. Similarly 132 kV Chohal circuit will be bypassed to Mahilpur by using second circuit of Mahilpur D/C line. The work being specific to the PSTCL needs, required to be executed urgently to maintain continuity of supply, exemption may be given from TBCB Mode.	52.82	7.92	2.11	62.86	10.56	1.58	0.42	12.57	15.85	2.38	0.63	18.86	26.41	3.96	1.06	31.43	62.86									52.82	7.92	2.11	62.86	62.86
30	220 kV Banga (Nawasheher)	Replacement of 2x50MVA 132/66 kV transformers with 2x100MVA 220/66 kV transformers	As per requirement of PSPCL, because 1X50 MVA+1X40 MVA, 132/66 kV T/Fs are overloaded. So work has been agreed upon as per Sr. no. 4 of Table-8 of MOM of TPC meeting. 66 kV buses will be connected through UG Power Cable	18.23	2.73	0.73	21.69	0.00	0.00	0.00	0.00	9.12	1.37	0.36	10.85	9.12	1.37	0.36	10.85	21.69					9.12	1.37	0.36	10.85	9.12	1.37	0.36	10.85	21.69
31	220 kV S/S Chajli	Augmentation of 66 kV single bus bar from double conductor to quadruple conductor	Proposal received from CE/P&M, PSTCL to increase the loading capacity	0.50	0.08	0.02	0.60	0.50	0.08	0.02	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60	0.50	0.08	0.02	0.60								0.60
32	400KV Dhuri to 400kV Patran	To increase ISTS point of drawl for ATC/TTC and injection of nuclear Power from Fatehabad via TBCB Patran	Under study	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00											
33	Double bus bar arrangement at 220 kV Butari	Making 220 kV Bus of Butari as double and shifting of 220/132 kV T/F of Butari to 220 kV Jandiala	For reliability of supply to consumers and Railways	1.80	0.27	0.07	2.14	0.90	0.14	0.04	1.07	0.90	0.14	0.04	1.07	0.00	0.00	0.00	0.00	2.14					1.80	0.27	0.07	2.14					2.14

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST										CAPITILISATION COST										
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@1 5%	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 15%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
34	220 kV D/C link between 220 kV S/S Butari and 400 kV S/S Wadala Granthian	220 kV D/C Link between 220 kV S/S Butari and 400 kV S/S Wadala Granthian, (35 km, 0.4 Sq" conductor)	To provide N-1 reliability in case of tripping of proposed 220 kV Jandiala-Verpal section or 220 kV PGCIL Jalandhar-Beas section and for downstream evacuation plan of 400 kV substation Wadala Granthian.	44.38	6.66	1.78	52.81	0.00	0.00	0.00	0.00	11.10	1.66	0.44	13.20	22.19	3.33	0.89	26.41	39.61													
35	Upgradation of 66 kV Ajnala to 220 kV level	Creation of 220 kV Ajnala with 1X160MVA + 1X100 MVA, 220/66 kV T/Fs (2 line bays, 2 T/F bays & 1no. Bus Coupler Bay) LILO of S/C line 220 kV Fatehgarh Churian - 220 kV Civil Lines Amritsar (LILO length 18 km, 0.4Sq")	Proposed by PSPCL for reliable supply to consumers in the border areas of Amritsar District and to de-load 220 kV Fatehgarh Churian, upgradation of 66 KV Ajnala was agreed upon by both PSPCL and PSTCL as per Table 4, Sr. No. 3 of TPC meeting held on dated 19.07.2022. At this S/S, the 2nd 100 MVA T/F will be installed after sparing 100 MVA Power T/F from some other work where the agumentation of 100MVA to 160MVA is planned.	48.65	7.30	1.95	57.89	4.87	0.73	0.19	5.79	9.73	1.46	0.39	11.58	14.60	2.19	0.58	17.37	34.74								0.00	0.00	0.00	0.00	0.00
36	Upgradation of 66 kV Bhagta Bhai ka to 220 kV level	Creation of 220kV Bhagta Bhai Ka with 1X160MVA + 1X100MVA, 220/66kV T/Fs (4 line beys, 2 T/F bays & 1no. Bus Coupler Bay) LILO of both circuits of 220 kV Himmatpura - GHTP Line (Line length 24 km, 0.4Sq")	Up-gradation of BhagtaBhai Ka to 220 kV proposed by PSPCL to give relief to 2X160 MVA overloaded power T/Fs at GHTP Lehra Mohabbat. PSPCL plans to shift from GHTP two 66 kV S/Stns to Bhagta Bhai ka and one 66 kV S/Stn to Bajakhana as per proposal submitted by CE/P&M PSPCL & CE/DS (W/est). PSTCL agreed for the same in the TPC meeting as this will also give relief to 220 kV Bajakhana. At this S/S the 2nd 100 MVA T/F will be installed after sparing 100 MVA Power T/F from some other work where the agumentation of 100MVA to 160MVA is planned As per PSERC notification dated 5/11/2018 (Annexure-A) intra-state-transmission project costing more than Rs. 50Cr. are to be developed through TBCB. Cost of this project is more than 50Cr. but work being a brown field project and technical upgradation as such exemption may be given from TBCB mode in line with Ministry of Power, Govt. of India Letter no. 15/2/2017-Trans-Pt(1) dated 15.3.2021 (Annexure-B)	58.97	8.85	2.36	70.17	5.90	0.88	0.24	7.02	11.79	1.77	0.47	14.03	17.69	2.65	0.71	21.05	42.10													
37	Upgradation of 66 kV Aerocity to 220 kV level (GIS substation)	Under Study	Proposed by PSPCL to feed upcoming loads in Mohali area as per MOM of TPC Meeting at Sr. no. 10 of Table-9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
38	Upgradation of 66 kV Kurali to 220 kV level	Under Study	Proposed by PSPCL in TPC Meeting to de-load 220 kV Kharar by shifting Morinda S/S to Kurali Table 15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
39	Upgradation of 66 kV Bhabat to 220 kV level	Under Study	As proposed by PSPCL in TPC meeting held on 19.7.2022	0.00															0.00												
40	220 kV MGG-3	Aug. of 2x100 220/66 kV T/f with 2x160MVA 220/66 kV T/F	As per Sr. No. 8 of Table-14 of MOM of TPC Meeting and due to % loading as discussed in PCC meeting on 26.7.2022	21.08	3.16	0.84	25.08	10.54	1.58	0.42	12.54					10.54	1.58	0.42	12.54	25.08	10.54	1.58	0.42	12.54					10.54	1.58	0.42	12.54	25.08
41	220 kV Maur	Addl. 220/66 kV 100 MVA T/F	Proposed by PSPCL as per sr. no. 5 of Table-3 of MOM of TPC meeting as loading has crossed 80% and violation of N-1 condition being a single transformer	9.12	1.37	0.36	10.85					9.12	1.37	0.36	10.85					10.85					9.12	1.37	0.36	10.85					10.85

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST												CAPITILISATION COST										
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@1 5%	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 15%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
42	220 kV Kartarpur	Aug. of 100 MVA, 220/66 kV T/f to 160 MVA	As per sr. no. 7 of Table-4 of MOM of TPC Meeting held on 19.07.2022 loading has crossed 80%	10.53	1.58	0.42	12.53					10.53	1.58	0.42	12.53					12.53					10.53	1.58	0.42	12.53					12.53
43	220 kV S/S Jhoke harihar (Amend No. 11/2021-22)	1 No. Additional 220/66 kV 100 MVA T/F		9.12	1.37	0.36	10.85									9.12	1.37	0.36	10.85	10.85									9.12	1.37	0.36	10.85	10.85
44	220 kV Maur	Addl. 66/11 kV, 20 MVA T/F	Proposed by PSPCL as per sr. no. 11 of Table-2 of MOM of TPC Meeting as loading has crossed 80%	3.00	0.45	0.12	3.57					3.00	0.45	0.12	3.57					3.57					3.00	0.45	0.12	3.57					3.57
45	220 kV Talwandi sabo	Aug. of 66/11 kV, 12.5 MVA T/f to 20 MVA	Proposed by PSPCL as per sr. no. 3 of Table-2 of MOM of TPC Meeting held on 19.07.2022 as loading has crossed 80%	2.73	0.41	0.11	3.25	2.73	0.41	0.11	3.25									3.25	2.73	0.41	0.11	3.25									3.25
46	220 kV Botlanwala	Aug. of 66/11 kV, 12.5 MVA T/f to 20 MVA	P&MPSTCL proposal as loading has crossed 80%	2.73	0.41	0.11	3.25									2.73	0.41	0.11	3.25	3.25									2.73	0.41	0.11	3.25	3.25
47	220 kV Baghapurana	Aug. of 66/11 kV, 12.5 MVA T/f to 20 MVA	P&MPSTCL proposal as loading has crossed 80%	2.73	0.41	0.11	3.25					2.73	0.41	0.11	3.25					3.25					2.73	0.41	0.11	3.25					3.25
48	132 kV Bhogpur	Aug. of 132/11 kV, 12.5 MVA to 20 MVA	Proposed by PSPCL as per sr. no. 8 of Table-5 of MOM of TPC Meeting as loading has crossed 80%	2.60	0.39	0.10	3.09					2.60	0.39	0.10	3.09					3.09					2.60	0.39	0.10	3.09					3.09
49	132 kV Sosan	Addl 12.5 MVA, 132/11 V T/F with CR Extension	As per sr. no. 13 of Table-2 of MOM of TPC Meeting, installation of additional 132/11 kV, 10/12.5 MVA instead of already planned augmentation of single 12.5 MVA T/F to 20 MVA should be installed to meet with N-1 contingency conditions	3.55	0.53	0.14	4.22	3.55	0.53	0.14	4.22									4.22	3.55	0.53	0.14	4.22									4.22
50	220 kV Devigarh	Addl 66/11 kV, 12.5 MVA T/F with CR Extension	As per sr. no. 1 of Table-10 of MOM of TPC Meeting as loading has crossed 80%	3.00	0.45	0.12	3.57	3.00	0.45	0.12	3.57									3.57	3.00	0.45	0.12	3.57									3.57
51	132 kV Chamkaur Sahib	1 No. 12.5 MVA, 66/11 kV T/F with CR extension	As per sr. no. 8 of Table-10 of MOM of TPC Meeting as loading has crossed 80%	3.00	0.45	0.12	3.57	3.00	0.45	0.12	3.57									3.57	3.00	0.45	0.12	3.57									3.57

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST										CAPITILISATION COST									
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15%	IDC@4%	TOTAL (T1)	Cost	EC@15%	IDC@4%	TOTAL (T2)	Cost	EC@15%	IDC@4%	TOTAL (T3)	T1+T2+T3	Cost	EC@15%	IDC@4%	TOTAL (T1)	Cost	EC@15%	IDC@4%	TOTAL (T2)	Cost	EC@15%	IDC@4%	TOTAL (T3)	T1+T2+T3
52	132 kV Kotakpura-1	Aug. of 12.5 MVA, 132/11 kV T/f to 20 MVA, 66/11 kV T/F	As per Sr. No. 8 of Table-2 of MOM of TPC Meeting held on 19.07.2022	2.62	0.39	0.10	3.12					2.62	0.39	0.10	3.12					3.12					2.62	0.39	0.10	3.12					3.12
53	220 kV Kotkaror	Addl. 66/11 kV, 12.5 MVA T/f including CR Extension	As per Sr. No. 12 of Table-2 of MOM of TPC Meeting held on 19.07.2022	3.00	0.45	0.12	3.57	3.00	0.45	0.12	3.57									3.57	3.00	0.45	0.12	3.57									3.57
54	220 kV Badni Kalan	Addl. 66/11 kV, 20 MVA T/f including CR Extension	As per Sr. No. 3 of Table-13 of MOM of TPC Meeting	3.00	0.45	0.12	3.57					3.00	0.45	0.12	3.57					3.57					3.00	0.45	0.12	3.57					3.57
55	220 kV Barnala (Handiaya)	Addl. 10/12.5MVA, 66/11 kV T/F	As per Sr. No. 8 of Table-9 of MOM of TPC Meeting	3.00	0.45	0.12	3.57					3.00	0.45	0.12	3.57					3.57					3.00	0.45	0.12	3.57					3.57
56	220 kV Dhanaula	Addl. 10/12.5 MVA, 66/11 kV T/F with CR extension	As per Sr. No. 4 of Table-10 of MOM of TPC Meeting	3.00	0.45	0.12	3.57					3.00	0.45	0.12	3.57					3.57					3.00	0.45	0.12	3.57					3.57
57	220 kV Pakhowal	Aug. of 10/12.5 MVA, 66/11 kV with 20 MVA, 66/11 kV T/F	As per Sr. No. 9 of Table-13 of MOM of TPC Meeting	2.73	0.41	0.11	3.25					2.73	0.41	0.11	3.25					3.25					2.73	0.41	0.11	3.25					3.25
58	220 kV Hoshiarpur (Hoshiarpur-Chohal Loading)	To replace 12.5 MVA and 20 MVA, 132/11 kV T/fs with 2X20 MVA, 66/11 kV T/Fs	To control loading of 132 Kv Hamirpur- Chohal section	5.24	0.79	0.21	6.24	2.62	0.39	0.10	3.12									6.24	2.62	0.39	0.10	3.12	0.00	0.00	0.00	0.00	2.62	0.393	0.105	3.1178	6.24

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST											CAPITILISATION COST										
								TOTAL Exp. In 2023-24				Total Exp.In 2024-25				TOTAL Exp. In 2025-26				Grand TOTAL	TOTAL Exp. In 2023-24				Total Exp.In 2024-25				TOTAL Exp. In 2025-26				Grand TOTAL
								Cost	EC@15%	IDC@4%	TOTAL (T1)	Cost	EC@15%	IDC@4%	TOTAL (T2)	Cost	EC@15%	IDC@4%	TOTAL (T3)	T1+T2+T3	Cost	EC@15%	IDC@4%	TOTAL (T1)	Cost	EC@15%	IDC@4%	TOTAL (T2)	Cost	EC@15%	IDC@4%	TOTAL (T3)	T1+T2+T3
59	132 kV Swadi Kalan	extension in Control room	As per Sr. No. 4 of Table-13 of MOM of TPC Meeting	0.36	0.05	0.01	0.36	0.30	0.05	0.01	0.36									0.36	0.30	0.05	0.01	0.36									0.36
60	220 kV Malerkotla	extension in Control room	As per Sr. No. 9 of Table-9 of MOM of TPC Meeting	0.36	0.05	0.01	0.36	0.30	0.05	0.01	0.36									0.36	0.30	0.05	0.01	0.36									0.36
61	3 No. Truck mounted hydraulic cranes i.e. Loader 05 Ton Capacity	Loaders are used for Loading/unloading of various equipment of transm.,tesion system, erection of various electrical substation equipment including Power transformers. The same vehicle may also be utilised as truck for shifting of material and T&P etc.	Proposal received from Dy. CE/Grid construction circle, PSTCL, Ludhiana.	1.52	0.23	0.06	1.81	1.52	0.23	0.06	1.81									1.81	1.52	0.23	0.06	1.81									1.81
62	3 No. Filteration set 6000 LPH capacity with operating voltage of 415V (3 Phase)	The filtration sets are used for dehydration and filtration of transformer oil, required during erection of all Power transformers.	Proposal received from Dy. CE/Grid construction circle, PSTCL, Ludhiana.	1.40	0.21	0.06	1.67	1.40	0.21	0.06	1.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.67	1.40	0.21	0.06	1.67									1.67
63	1 No. Vacuum drying Plant/ Oven For 100MVA P/T/Fe	The Vacuum Drying Plant is suitable for drying the active parts of transformers in an Autoclave by using the classical drying method.	Proposal received from Dy. CE/Grid construction circle, PSTCL, Ludhiana.	4.00	0.60	0.16	4.76	4.00	0.60	0.16	4.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.76	4.00	0.60	0.16	4.76									4.76
64	220 kV S/S Sehnewal	To make 66 kV double bus bar arrangement (remaining part of existing 66 kV lines) needs to be shifted to newly erected/ to be erected 66 kV line bays Due to involvement of shifting of 66 kV lines the expenditure needs to be revised.	The scope of work also needs to be revised. So, the work at Sr. 90 of 2nd MYT shall be foreclosed and new work with revised scope of work has been added in new MYT 2023-26.	1.40	0.21	0.06	1.67	0.00	0.00	0.00	0.00	1.40	0.21	0.06	1.67	0.00	0.00	0.00	0.00	1.67	0.00	0.00	0.00	0.00	1.40	0.21	0.06	1.67	0.00	0.00	0.00	0.00	1.67
65	400 kV Dhanau	Sub-station Capacity enhancement	To increase in ATC/TTC limits as per load growth requirement (Under Study)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00													

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST												CAPITALISATION COST									
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@1 5%	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 15%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
66	Replacement of Disc Insulators of 400 kV PSTCL lines with Polymer Insulators			10.00	1.50	0.40	11.90	2.00	0.30	0.08	2.38	4.00	0.60	0.16	4.76	4.00	0.60	0.16	4.76	11.90	2.00	0.30	0.08	2.38	4.00	0.60	0.16	4.76	4.00	0.60	0.16	4.76	11.90
67	Makhu, Rajpura, Mukatsar/ Behman Jassa Singh (Malkana), and Dhanansu	4nos. 400 kV, 125 MVAR Reactors	To Control Over voltages in Northern region, matter is being deliberated in CMETS Meetings. PSDF Funding shall also be explored.	0.00																0.00											
68	Miscllaneous	Augmentation of bus bars, extension in control room building, providing room for second source for station battery etc	Miscllaneous	30.00	4.50	1.20	35.70	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	35.70	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	35.70
69	Miscllaneous	Augmentation/additions of T/fs at 220/132/66 kV kV S/Stns of PSTCL	Miscllaneous	30.00	4.50	1.20	35.70	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	35.70	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	35.70
70	Miscllaneous	Additionel 220/132/66 kV line bays related with feasibility cases or as per PSPCL/PSTCL Requirement	Miscllaneous	30.00	4.50	1.20	35.70	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	35.70	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	35.70
71	Miscllaneous	Unforeseen emergency works	Miscllaneous	30.00	4.50	1.20	35.70	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	35.70	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	10.00	1.50	0.40	11.90	35.70
		Total (A)		1621.09			1929.09				298.43				565.52				666.66	1530.60				153.24				223.32				626.71	1003.27
Note - Attached copy of TPC nilestes may be considered as Annexure-C																															
HIS&D Works																															
72		Procurement of Fork lifter for Jamsher Store and Procurement of Weighing Machine for PSTCL Stores	HR,IT, S&D Organisation work	0.12	0.00	0.00	0.12	0.12	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.00	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.12
73		Procurement of IT related Hardware items, Software Licences, Cyber security related and unforeseen Capital expenditure	Procurement of IT related Hardware items, Software Licences, Cyber security related and unforeseen Capital expenditure	3.00	0.00	0.00	3.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	3.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	3.00
		Total (B)		3.12			3.12				1.12				1.00				1.00	3.12				1.12				1.00				1.00	3.12

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST										Grand TOTAL	CAPITILISATION COST										Grand TOTAL
								TOTAL Exp. In 2023-24				Total Exp.In 2024-25				TOTAL Exp. In 2025-26					TOTAL Exp. In 2023-24				Total Exp.In 2024-25				TOTAL Exp. In 2025-26				
								Cost	EC@15%	IDC@4%	TOTAL (T1)	Cost	EC@15%	IDC@4%	TOTAL (T2)	Cost	EC@15%	IDC@4%	TOTAL (T3)	T1+T2+T3	Cost	EC@15%	IDC@4%	TOTAL (T1)	Cost	EC@15%	IDC@4%	TOTAL (T2)	Cost	EC@15%	IDC@4%	TOTAL (T3)	T1+T2+T3
P&M Works																													
74		To provide/replace ACs in existing 220 KV & 400 KV S/S's	To maintain temperatures for numerical relays	1.50			1.50	0.5	0	0	0.5	0.5	0	0	0.5	0.5	0	0	0.5	1.50	0.5	0	0	0.5	0.5	0	0	0.5	0.5	0	0	0.5	1.50
75		To provide man lifter cum working platform at new 400 KV S/Ss i.e Behman Jassa Singh, Dhanansu and Ropar	For doing work on equipment installed at 400 KV sub-stations	2.50			2.50	2.5	0	0	2.5	0	0	0	0	0	0	0	0	2.50	2.5	0	0	2.5	0	0	0	0	0	0	0	0	2.50
76		15 KV Insulation Tester for new 400 KV & 220 KV S/Ss (15 No.)	Insulation Testers for new and up-coming Sub-stations	1.20			1.20	0.4	0	0	0.4	0.4	0	0	0.4	0.4	0	0	0.4	1.20	0.4	0	0	0.4	0.4	0	0	0.4	0.4	0	0	0.4	1.20
77		T&P for new upcoming S/Ss and existing S/Ss	Required to maintain the 400 Kv, 220 Kv sub-stations by manpower	0.60			0.60	0.2	0	0	0.2	0.2	0	0	0.2	0.2	0	0	0.2	0.60	0.2	0	0	0.2	0.2	0	0	0.2	0.2	0	0	0.2	0.60
78		T&P for new upcoming S/Ss and existing lines inc. new HTLS lines	Required to maintain the 400 Kv, 220 Kv transmission lines by the manpower	0.60			0.60	0.2	0	0	0.2	0.2	0	0	0.2	0.2	0	0	0.2	0.60	0.2	0	0	0.2	0.2	0	0	0.2	0.2	0	0	0.2	0.60
79		Camera for testing porcelain disc insulators (One No.)	Required for testing of porcelain insulator discs for their healthiness in online mode	0.25			0.25	0.25	0	0	0.25	0	0	0	0	0	0	0	0	0.25	0.25	0	0	0.25	0	0	0	0	0	0	0	0	0.25
80		Tower footing resistance sets (5 Nos i.e one per circle)	To measure the transmission line tower footing resistance by AEE/TL	0.15			0.15	0	0	0	0	0.15	0	0	0.15	0	0	0	0	0.15	0	0	0	0	0.15	0	0	0.15	0	0	0	0	0.15
81		High end Contact resistance meter (1 No.)	For the measurement of contact resistance of isolators circuit breakers etc at 400 KV sub-stations.	0.15			0.15	0.15	0	0	0.15	0	0	0	0	0	0	0	0	0.15	0.15	0	0	0.15	0	0	0	0	0	0	0	0	0.15
82		High end Earth tester cum soil resistivity measurement (1 No.)	For use at 400 KV sub- stations	0.20			0.20	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0.20	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0.20
83		Up-gradation of existing BDV Kits (2 Nos.) from OEM as per new IEC standards for ODTL	Required for Oil & Diagnostic Testing Lab due to change in IS/IEC oil testing standards.	0.06			0.06	0.06	0	0	0.06	0	0	0	0	0	0	0	0	0.06	0.06	0	0	0.06	0	0	0	0	0	0	0	0	0.06
84		PCB (polychlorinated Biphenyl) test kit for oil as per new IEC standards	Required for Oil & Diagnostic Testing Lab due to change in IS/IEC oil testing standards	0.30			0.30	0.3	0	0	0.3	0	0	0	0	0	0	0	0	0.30	0.3	0	0	0.3	0	0	0	0	0	0	0	0	0.30
85		Up-grading of HPLC kit of ODTL from OEM to conduct additional oil tests of metal passivator and DBDS as per new IEC standards	Required for Oil & Diagnostic Testing Lab due to change in IS/IEC oil testing standards	0.15			0.15	0.15	0	0	0.15	0	0	0	0	0	0	0	0	0.15	0.15	0	0	0.15	0	0	0	0	0	0	0	0	0.15
86		Up-gradation of two existing omicron relay test kits for advanced distance relay testing functions	For accurate testing of distance protection relays of all makes using OEM setting tools/ files at 400 KV level	0.10			0.10	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0.10	0.1	0	0	0.1	0	0	0	0	0	0	0	0	0.10

Sr. No.	Substation Name	Scope of work	Remarks	Total Cost	EC@15%	IDC@4%	Project Cost	CAPEX COST											CAPITILISATION COST									
								TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL	TOTAL Exp. in 2023-24				Total Exp.in 2024-25				TOTAL Exp. in 2025-26				Grand TOTAL
								Cost	EC@15 %	IDC@4 %	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@1 5%	IDC@ 4%	TOTAL (T3)	T1+T2+T3	Cost	EC@ 15%	IDC@ 4%	TOTAL (T1)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T2)	Cost	EC@ 15%	IDC@ 4%	TOTAL (T3)	T1+T2+T3
87		OTDR (1) for T&C Cell under Communication circle	For testing of OPGW	0.28			0.28	0.28	0	0	0.28	0	0	0	0	0	0	0	0	0.28	0.28	0	0	0.28	0	0	0	0	0	0	0	0.28
88		Medium end Earth testers (25)	For all P&M Divisions to check earth resistance of S/S yard and various other switchgears	0.50			0.50	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0.50	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0.50
89		Low end thermo-vision cameras for TL gangs (5)	To detect hot points	0.50			0.50	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0.50	0	0	0	0	0	0	0	0	0.5	0	0	0.5	0.50
90		Cable fault locator	For newly laid 132 KV cable at Amritsar	2.00			2.00	0	0	0	0	2	0	0	2	0	0	0	0	2.00	0	0	0	0	2	0	0	2	0	0	0	0	2.00
91		Cable analyser	For power cables of 132 KV at Amritsar	4.00			4.00	0	0	0	0	0	0	0	0	4	0	0	4	4.00	0	0	0	0	0	0	0	0	4	0	0	4	4.00
92		Up-gradtion of old ULDC fibre optic system (Comm.)	For reliable telemetry data to SLDC	5.25			5.25	1.25	0	0	1.25	2	0	0	2	2	0	0	2	5.25	1.25	0	0	1.25	2	0	0	2	2	0	0	2	5.25
93		Remote Control Operation along with VMS of 400kV S/SS's Behman Jassa Singh, Dhanaau and Ropar	For RHMI operation of 400 KV S/Se- and to reduce operational manpower	3.00			3.00	0	0	0	0	0	0	0	0	3	0	0	3	3.00	0	0	0	0	0	0	0	0	3	0	0	3	3.00
94		Up-gradation of server cum gateways of existing SAS equipped sub-stations with IEC 60870-5-104 licenses	To improve reliability of data telemetry to SLDC as per 104 protocol for seamless flow of data	0.20			0.20	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0.20	0.2	0	0	0.2	0	0	0	0	0	0	0	0	0.20
95		SAS software along with relevant licenses and associated hardware	For trouble shooting fault detections in SAS networking without disturbing online SAS system in automated S/S's	0.60			0.60	0	0	0	0	0.6	0	0	0.6	0	0	0	0	0.60	0	0	0	0	0.6	0	0	0.6	0	0	0	0	0.60
96		For Cyber Security- intrusion detection system and hardware based firewall for SAS equipped S/Ss	For cyber security threats of SAS equipped 400 KV S/Se of PSTCL	6.00			6.00	0	0	0	0	6	0	0	6	0	0	0	0	6.00	0	0	0	0	6	0	0	6	0	0	0	0	6.00
97		Construction of safety walls between transformers in adjacent bays	For safety of power transformers in case of fire	6.00			6.00	2	0	0	2	2	0	0	2	2	0	0	2	6.00	2	0	0	2	2	0	0	2	2	0	0	2	6.00
98		Transformer diagnosis system with facility of all types of major tests in-built in one kit	Proposed as a pilot project for one protection gang	0.45			0.45	0	0	0	0	0	0	0	0	0.45	0	0	0.45	0.45	0	0	0	0	0	0	0	0	0.45	0	0	0.45	0.45
Total (C)				36.54			36.54				8.74				14.05				13.75	36.54				8.74				14.05				13.75	36.54
Total [A+B+C]				1660.75			1968.75				308.29				580.57				681.41	1570.26				163.10				238.37				641.46	1042.93

Appendix-D

SLDC Works list

Sr No. as per CIP Order	Sr. No.	Particulars	Scope of Work	GoP approved for 2nd Control Period (in Cr)	Total Cost of Project	Project Start Date/ Zero Date	Actual/ Anticipated Year of completion	CAPEX during 2021-22				Capitalization during 2021-22				CAPEX during 2022-23				Capitalization during 2022-23				CAPEX during 2023-24				Capitalization during 2023-24				CWIP Upto 2023-24	CAPEX during 2024-25				Capitalization during 2024-25				CAPEX during 2025-26				Capitalization during 2025-26				Remarks
								Works Exp	EC	IDC	Total	Works Exp	EC	IDC	Total	Works Exp	EC	IDC	Total	Works Exp	EC	IDC	Total	Works Exp	EC	IDC	Total	Works Exp	EC	IDC	Total																	
Works which have been Completed or likely to be completed on or before 31.03.2023																																														
1	-	Procurement of 80 Nos Energy meters (Emergent Work Approved through Petition No 63/2021)	80 No. Interface Energy meters were procured in 2021-22 as emergent work for upcoming metering points/defective meters and for completion of SAS Project by PAM . This work approved by BOD and PSERC vide order dated 02.03.2022 against petition no 63/2021. Material has been received and is being installed on need basis.	0.280	0.280	12.07.2021	2023-23	0.1194	0	0	0.119	0.0537	0	0	0.053	0.1606	0	0	0.1606	0.2273	0	0	0.227	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-
(A) : Spill Over Works of 1st MYT Control Period (From FY 2017-20)																																														
1	1	Scheme for providing 45 Nos Remote Terminal Units for SCADA/EMS system at 220 & 132 KV Substations of PSTCL in Punjab (Spill over from 1st MYT)	Supply and Installation of 45 nos. RTUs.	0.480	0.72 (As per WO)	22.03.18	2023-24	0.5509	0	0.025	0.576	0	0	0	0	0.75	0	0.03	0.773	1.5	0	0.03	1.525	0.000	0.000	0.025	0.075	1.221	0.000	0.000	1.221	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Scheme for providing 45 No. RTUs mentioned at Sr. No. 1 of 2nd MYT CP.Total 43 Nos RTUs have been installed.The major work is expected to be completed in 2022-23. However few minor works/bookings are expected in 2023-24.Work was delayed due to COVID -19 and slow responses from the contractor. Penalties as per contract have been deducted from the contractor.
2	2	Centralised AC system, Furniture & Fixtures (including office ACs)(Spill over from 1st MYT)	Centralised AC system, Furniture & Fixtures (including office ACs)	1.760	1.45 (Tentative)	02.06.17	2024-25	0.0478	0	0	0.048	0.0478	0	0	0.048	0.3	0	0	0.3	0	0	0	0	0.700	0.000	0.000	0.700	1.000	0.000	0.000	1.000	0.000	0.400	0.000	0.000	0.400	0.400	0.000	0.000	0.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	This work is mentioned at Sr. No. 2 of 2nd MYT CP. 10 Nos spill ACs have already been procured. New ACs against outlived office ACs and centralized AC system for control room shall be procured under this work.This is an ongoing scheme which is required to be kept open for replacement of outlived office Acs/centralized AC system in the next MYT.
3	3	IT equipments including Server, computer, Displays, software etc. for SLDC, Web site and its offices. (Spill over from 1st MYT)	IT equipments including Server, computer, Displays, software etc. for SLDC, Web site and its offices.	0.380	0.43 (Tentative)	11.12.18	2022-23	0	0	0	0	0	0	0	0	0.3	0	0	0.3	0.3	0	0	0.3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Providing additional display for conference room. Procuring of IT items for SLDC Building. Next generation firewall and other IT equipment shall be procured in near future as per requirement.This is an ongoing scheme which is required to be kept open for replacement /new IT equipment in the SLDC building
(B) : Spill Over Works of 2nd MYT Control Period (From FY 2020-23)																																														
4	4	Implementation of SAMAST scheme in Punjab (Procurement of meters, communication equipments and Hardware and software for Scheduling, Accounting, Metering and settlement of transaction of Electricity)(Spill over from 2nd MYT)	Implementation of SAMAST scheme in Punjab.	22.520	22.520	04.03.22	2023-24	0	0	0	0	0	0	0	0	18.52	0	0	18.52	0	0	0	0	4.000	0.000	0.000	4.000	22.520	0.000	0.000	22.520	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	The project has been started on 04.03.2022 and contractual date of completion is 04.03.2023. However, the project and is bookings may spillover to next MYT. Also, the scheme needs to be kept open for material required for upcoming metering points during 3rd MYT.approved CIP is as per PSERC order dated 02.03.2022 against petition no 63 of 2021 (The scheme is partially funded from PSDF. The Total PSDF Fund sanctioned for this work is Rs. 12.22 Cr out of which Rs.1.222 Cr has been received in Oct-2020). Remaining funds have been sought from POSOCO
5	5	Procurement/ Replacement of RTUs for various substations of PSTCL (66 nos. RTUs) (Spill over from 2nd MYT)	Out of 66 No, 45 No. RTU have been procured out of which 44 nos. have been installed. Fresh tender enquiry shall be floated for remaining 21 nos. RTUs + 8 nos more RTUs against future/damaged/outlived RTUs.	13.640	9.68 (Tentative)	26.02.22	2024-25	5.2672	0	0	5.267	0.1149	0	0	0.115	1.5	0	0.03	1.525	6.2926	0	0.03	6.318	2.500	0.000	0.000	2.500	0.000	0.000	0.000	0.000	2.860	0.200	0.000	0.025	0.225	3.060	0.000	0.025	3.085	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Out of 66 No, 45 No. RTU have been procured out of which 44 nos. have been installed. Fresh tender enquiry shall be floated for remaining 21 nos. RTUs (project and its bookings will spillover to next MYT) and another 8 no RTUs against future/damaged/outlived RTUs.
6	6	Extension of SLDC Building (Spill over from 2nd MYT)	Extension of building Shall be required for equipment under ULDC Phase 3(New Parking Shed/UNMS(Unified Network Management System) project	1.930	1.93 (Tentative)	01.04.23	2025-26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	1.000	0.000	0.000	1.000	1.500	0.000	0.000	1.500	0.430	0.000	0.000	0.430	0.430	0.000	0.000	0.430	This work was kept in Extension of building required for additional manpower for CAIN,SAMAST. However, additional manpower has not been approved as yet. Extension of building Shall be required for equipment under ULDC Phase 3(New Parking Shed/UNMS(Unified Network Management System) project
New works for MYT 2023-26																																														
1		Purchase of equipment/software as per instructions of control agencies like NLDC, NCIPC, CERT-IN, for cyber security etc. or any other unforeseen SLDC related works.	Purchase of IT equipments/software as per instructions of control agencies like NLDC, NCIPC, CERT-IN, for cyber security etc. or any other unforeseen SLDC related works (i.e. for RTU, IT, SAMAST, etc.)	Nil.	1.5 (Tentative)	01.04.23	2025-26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500	0.500	0.000	0.000	0.500	1.000	0.000	0.000	1.000	0.500	0.000	0.000	0.500	0.500	0.000	0.000	0.500	
2		ULDC Phase III (Under Study)	Replacement of SCADA System. The proposal for this work is under review at center level. This work will be covered under capital works only in case proposal of execution through tariff mode is rejected.	Nil.	As per MoP ,this project is to be implemented by CTU (PGCIL), the modalities of which are under discussion stage.																																									
Total (D) (New Works Cost)																									0.5				0	0.5				0.5				1				0.5				0.5	

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Regd. No. NW/CH-22

Regd. No. CHD/0092/2018-2020

Punjab Government Gazette

EXTRAORDINARY

Published by Authority

CHANDIGARH, MONDAY, NOVEMBER 5, 2018 (KARTIKA 14, 1940 SAKA)

PUNJAB STATE ELECTRICITY REGULATORY COMMISSION

NOTIFICATION

The 5th November, 2018

No. PSERC/Secy/132.-In accordance with para 5.3 of National Tariff Policy, the Punjab State Electricity Regulatory Commission hereby decides that intra-state transmission projects costing more than Rs. 50 Crore shall be developed by State Govt./STU through tariff based competitive bidding.

By order of the Commission
Sd/-
SECRETARY

1634/11-2018/Pb. Govt. Press, S.A.S. Nagar

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Annexure-B

No. 15/2/2017-Trans-Pt(1)
Government of India
Ministry of Power
Shram Shakti Bhawan, Rafi Marg, New Delhi- 110001

Dated, 15th March, 2021

To

Addl. Chief Secretaries/ Pr. Secretaries/
Secretaries of Power/ Energy Departments
of all the States and UTs.

Subject: Adoption of Tariff Based Competitive Bidding (TBCB) for intra-State transmission projects- reg.

Sir,

You are aware that Electricity Act 2003 has created conducive environment for investments in all segments of the electricity industry, both for public and private sectors, by removing barrier to entry in different segments. Section 63 of the Electricity Act provides for participation of private sector on competitive basis in different segments so as to encourage private sector investment.

2. National Electricity Policy 2005, envisages that role of private participation in generation, transmission and distribution would become increasingly imortant in view of the rapidly growing investment needs of the sector. It also states that the Central Government and the State Governments need to develop workable and successful models for public private partnership for leveraging private investment with the public sector finances.

3. In continuation of the National Electricity Policy 2005, Tariff Policy was notified by the Central Government in 2006 for ensuring optimal development of the transmission network to promote efficient utilization of generation and transmission assets in the country, as well as for attracting the required investments in the transmission sector and providing adequate returns.

4. In line with above policy framework, Ministry of Power notified "Tariff Based Competitive Bidding (TBCB) Guidelines for Transmission Service" and "Guidelines for Encouraging Competition in Development of Transmission Projects" under section 63 of the Electricity Act, 2003 on April 13, 2006. Subsequently, Standard Bidding Documents, viz. Request for Qualification (RfQ), Request for Proposal (RfP) and Transmission Service Agreement (TSA), were notified by Ministry of Power, Govt. of India in the year 2008, followed by subsequent amendments in these documents. With this, tariff based competitive bidding started for development of inter-state transmission sector since 2010.

5. Subsequently, the Central Government notified revised Tariff Policy in January 2016 with following provisions regarding Transmission System:

7.1 (6) :Investment by transmission developer including CTU/STUs would be invited through competitive bids in accordance with the guidelines issued by the Central Government from time to time.

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7.1 (7) While all future inter-state transmission projects shall, ordinarily, be developed through competitive bidding process, the Central Government may give exemption from competitive bidding for (a) specific category of projects of strategic importance, technical upgradation etc. or (b) works required to be done to cater to an urgent situation on a case to case basis.

6. In line with provisions of the Tariff Policy 2016, generally inter-state transmission systems are developed through competitive bidding only, except for certain categories of transmission system as specified in the Tariff Policy 2016. With adoption of Tariff Based Competitive Bidding for development of transmission system, following key benefits have been observed:

(i) Lower Tariff compared to Cost Plus: With large number of bidders participating in development of a transmission project, discovered tariff for a transmission project can be lower than cost-plus tariff by about 30-40%

(ii) Less burden on government finances: It will attract private investments for development of projects, and scarce government fund can be spared for other priority sectors

(iii) Risk sharing: It encourage risk sharing with private sector. Innovative Technology: It encourages use of advanced technology for improving cost and efficiency

7. As intra-state transmission system has major share in the transmission sector in the country, adoption of Tariff Based Competitive Bidding (TBCB) in development of intra-state transmission system can effectively reduce burden on State Governments' finances as well as reduce tariff of intra-State transmission system, leading to consumers' benefit. The matter was also discussed in a meeting taken by Hon'ble Union Minister of State (Independent Charge) for Power and New and Renewable Energy on 03.02.2021 and it was decided to request the State/UT Governments to adopt TBCB in development of intra-State transmission system.

8. In light of above and in the larger interest of consumers, it is strongly recommended that tariff based competitive bidding may be adopted for development of Intra-State Transmission system also.

9. This issues with the approval of Competent Authority.

Yours faithfully,

15.03.2021

(Mritunjay Kr. Narayan)
Joint Secretary to the Govt. of India

Copy to

1. Chairpersons of all SERCs and JERCs.
2. Chairperson, CEA, New Delhi.
3. PS to Hon'ble MoSP (IC) / Sr PPS/ PPS/ PS to Secretary (Power) / AS (SKGR) I AS (VKD) / AS&FA / Sr Advisor/ All JSs/ CE(Th), MoP
4. Technical Director, NIC, Ministry of Power- with the request to host this letter on the website of Ministry of Power

(18) Annexure-C

Minutes of Transmission Pla ing Committee Meeting

Meeting of the Transmission Planning Committee was held on 19.07.2022 at PSTCL Conference Room at Head office, Mall Road Patiala. Following officers were present:-

1. Chief Engineer/TS,PSTCL,Patiala
2. Chief Engineer/P&M,PSTCL , Ludhiana
3. Chief Engineer/West Zone,PSPCL,Bathinda
4. Chief Engineer/South Zone,PSPCL,Patiala
5. Chief Engineer/Central Zone,PSPCL,Ludhiana
6. Chief Engineer/Border Zone, PSPCL,Amritsar
7. Chief Engineer/North Zone, PSPCL, Jalandhar
8. Chief Engineer/P&M, PSPCL,Ludhiana
9. Chief Engineer/Planning,PSPCL,Patiala
10. Chief Engineer/TS,PSPCL,Patiala
11. Dy. CE/Transmission Planning,PSPCL,Patiala
12. SE/Planning,PSTCL,Patiala
13. ASE/Procurement,P&M,PSPCL, Ludhiana
14. ASE/PO&S, PSTCL, Ludhiana
15. ASE/Planning-1,PSTCL,Patiala
16. SR.XEN./Planning,PSPCL,Patiala
17. SR.XEN./Planning,PSPCL,Patiala
18. AEE/Planning-1,PSTCL,Patiala
19. AEE/Planning-2,PSTCL,Patiala

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Agenda circulated vide SE/Planning, PSTCL, Patiala vide memo no. 403/12 dated 11/07/2022 was discussed in detail and it was decided as under:-

WEST ZONE

Sr. No.	MOM
1	**Expansion of 220 kV S/S Moga, 132 kV S/s Moga-1 & 132 kV S/S Moga-2** - CE/DS, West Zone, PSPCL, Bathinda apprised that it is not easy to take 66 kV line from 220 kV Moga. PSTCL asked PSPCL to set up a new 66KV S/S with initial connectivity via power cable for reliability as all the 132 KV S/Ss in Moga were overloaded and there is no long term space for expansion. CE/TS PSPCL & CE/DS (West) Bathinda informed that committee of Sr. Xen/TLSC PSPCL , SE/DS Faridkot and SE/SS Design PSPCL will study the proposal of downstream system of 66 kV at Monopoles/underground Cables for new 66kv S/S nearby Singhawala and PSPCL will send the proposal accordingly. However, PSPCL stressed upon PSTCL for installing 2 nos. 20MVA 66/11 kV T/fs along with 220/66 kV T/F and extension of control room for 11 kV loads.PSPCL also stressed upon PSTCL to expedite the installation of 20 MVA 132/11kV T/F at 132kV Dhalleke.
2	**To establish new 220 kV S/S at Fazilka as approved in the 2nd MYT** PSTCL informed TPC that railway connection is proposed to be given to TSS Lakhewali from 66 KV Arniwala s/s by constructing a 220 KV Switching station by LILO of one circuit of 400kV Muktsar(220 KV bus)- Abohar D/C Line. Apart from this, PSTCL apprised that there is overloading on 220 KV Muktsar (400 KV) -Malout S/C line. So, to give relief to this line, load of 66 KV D/C Arniwala is proposed to be shifted to 220 kV Muktsar (400 kV)- Abohar line in the second stage at Arniwala. It was also informed to PSPCL that 66 kV Guru Hrasahai Is also being upgraded to 220 KV which will give relief of about 90 MVA to 220 kV Ghubaya S/S & hence there is no urgent requirement of 220 kV near Fazilka. PSPCL informed that by up-grading Guru Harsahai issue of overloading of 220 KV Ghubaya will be addressed but the issue of overloading of 66 KV Ladhuka/Fazilka lines will still remain. CE/DS, West Zone, PSPCL, Bathinda proposed setting up of greenfield substation at Talliwal Bodla between Arniwala- Fazilka and with this there 66 KV Line length to Fazilka will decrease by about 12-15 km in comparison to Arniwala. But still the length of 66 KV Fazilka- Tahliwal will be around 13-15 km. However, it was apprised by PSTCL that if Tahliwala Bodla is considered the length of 220 KV LILO will increase by about 12- 13 km. Moreover at the proposed land location, Panchayat is not willing to give land free of cost and was demanding lease amount of about Rs 15000- 20000/year per acre for first 10 years and subsequent increase there-off for about 10 acres. So PSTCL informed that it would be more appropriate if suitable land is made available at the load center i.e Fazilka or about 2-3 kms from it to have more benefits and consider Arniwala separately for relief to 220 KV Malout/ Katorewala.
3	**220 kV S/S Jhoke Harihar-** Upgradation of 66 kV Jhoke Harihar has been planned vide Amend No. 11/2021-22 dated 08.07.21. PSPCL stressed upon early completion of work to address the overloading of 132/66 KV Transformers at 220 KV Ferozepur

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4	**220 Kv S/S Jeewa Arian-** CE/DS West PSPCL had proposed upgradation of 66 kV S/S Jeew Arian to 220 kV S/S to deload 220 kV S/S Ghubaya but PSTCL apprised that upgradation of 66 kV Guru Harsahai to deload Ghubaya can be considered in 3rd MYT 2023-26 of PSTCL as the transfer of land owned by Village Panchayat has not matured for upgradation of 220 kV S/S Jeew Arain. Therefore, PSPCL agreed to the proposal for upgradation of 66 kV Guru Harsahai as it would give relief to both 220 KV Ghubaya and 220 KV Sadiq. This S/S would be connected by D/C from 220 KV Ghubaya and 220 KV Jhoke Harihar.
5	**Upgradation of 66 kV Bhalaina to 220 KV-** Since sufficient land is not available at 66 kV S/S Kauni, so instead of upgradation of 66 kV Kauni, PSPCL proposed upgradation of 66 kV Bhalaina to 220 kV level to de-load 220 KV and 132 KV S/Ss at Muktsar. It was also agreed upon that PSPCL will plan a 66 kV link from Bhalaiana to Doda and Kauni to deload 3X100 MVA, 220 /132 KV auto transformers at 220 kV Muktsar. The proposal for these links will be sent by CE/P&M, PSPCL to Planning/PSPCL.

TABLE 2

Sr.no	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1.	220KV Himmatpura	66/11, 2 x 12.5 MVA	89.12%	92.68%	PSTCL apprised that Aug of 12.5 MVA 66/11 kV to 20 MVA already planned at Sr. No. 54 of 2nd MYT.
2.	132KV Ferozeshah	132/11,2x12.5+1x20	85.37%	88.79%	PSTCL apprised that Aug of 12.5 MVA 132/11 kV to 20 MVA already planned at Sr. No. 60 of 2nd MYT.
3.	220KV Talwandi Sabo	66/11, 20+12.5 MVA	79.38%	82.56%	PSTCL apprised that Aug of 12.5 MVA 66/11 kV to 20 MVA will be included in 3rd MYT 2023-26.
4.	132KV Samadh Bhai	132/11, 3 x 20 MVA	85.43%	88.84%	PSTCL apprised that Addl. 12.5 MVA 132/11 kV already planned at Sr. No. 58 of 2nd MYT.
5.	132KV Gholian Kalan	132/11, 1x20MVA	89.50%	93.00%	PSTCL apprised that Addl. 20 MVA 132/11 kV already planned at Sr. No. 84 of 2nd MYT.
6.	220KV Baghapurana	66/11, 2x20+1x12.5	79.80%	82.99%	PSTCL apprised that Addl. 12.5 MVA 66/11 kV already planned at Sr. No. 57 of 2nd MYT.
7.	132KV Panj Grayian	132/11, 2x12.5	90.05%	94.14%	PSTCL apprised that Aug of 12.5 MVA 132/11 kV to 20 MVA already planned at Sr. No. 81 of 2nd MYT.
8.	132KV Kotakpura-1	132/11, 1x10/12.5	82.25%	85.54%	PSTCL agreed that proposal for augmentation of 132/11 kV, 10/12.5 MVA to 20 MVA 66/11 KV shall be included in MYT 2023-26 of PSTCL to reduce 132 KV system

9.	220KV Bajakhana	66/11, 2x20	91.42%	95.00%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
10.	220KV Mansa	66/11, 2x20	82.8%	86.16%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
11.	220KV Maur	132/11, 2x20	77.1%	80.21%	PSTCL agreed to the proposal for installation of Addl. one no. 20 MVA, 66/11 kV T/F in MYT 2023-26 of PSTCL to increase 66 KV System and decrease 132 KV system as suggested by CE/TS, PSPCL.
12.	220KV Kotkarore	66/11, 2x20	90.27%	93.88%	PSTCL agreed to the proposal for installation of additional 66/11 kV, 10/12.5 MVA in MYT 2023-26 of PSTCL.
13.	132 KV Sosan	132/11, 10/12.5	82.24%	85.5%	It was agreed for installation of additional 132/11 kV, 10/12.5 MVA instead of already planned augmentation of single 12.5 MVA T/F to 20 MVA as per request of CE/P&M PSTCL for N-1 contingency
14.	132 KV Srainaga	132/11, 2x12.5	85.9%	89.3%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
15.	132KV Kotkapura-2	132/11, 1x20	82.25%	85.54%	PSTCL apprised that there is no space available in yard and control room for additional T/F, as such PSPCL should explore some other alternative or set up a new 66 kV S/S nearby.
16.	132KV IGC Bathinda	132/11, 2x12.5	80.44%	83.65%	PSTCL apprised that Aug of 2X12.5 MVA 132/11 kV to 2X20 MVA already planned at Sr. No. 83 of 2nd MYT.
17.	220KV Abohar	66/11, 2x20	91.12%	94.77%	PSTCL apprised that Addl. 12.5 MVA 66/11 kV is already planned at Sr. No. 40 of 2nd MYT.
18.	132KV Faridkot	132/11, 20+12.5	80.92%	84.16%	PSTCL apprised that Aug of 12.5 MVA 132/11 kV to 20 MVA is already planned at Sr. No. 59 of 2nd MYT.

TABLE-3

Sr. no.	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1.	220KV Talwandi Sabo	220/66 KV, 1x100	89.14%	92.70%	PSTCL apprised that Addl. 100 MVA already covered in N-1 non-compliant substations list in 2nd MYT20-23 of PSTCL.
2.	220KV Mansa	220/66 KV,2x100 + 1x160	94.49%	98.2%	PSTCL apprised that 220 KV substation Budhlada is likely to be commissioned in next 6 months and it will de-load Mansa
3.	220KV Botianwala	220/66KV, 2x100(1X160+1X100)	88.29%	93.41%	PSTCL apprised that 1X 100 MVA, 220/66 kV transformer already stands replaced with 160 MVA T/F.
4.	220KV Ghubaya	220/66,2x100 + 1x160	85.23%	86.92%	PSTCL apprised that upgradation of 66 kV substation Guru Har Sahai to 220 kV level is already under study. PSPCL requested for augmentation of 100 MVA to 160 MVA at 220kV Ghubhaya as upgradation of Guru HarSahai will take time but PSTCL apprised that loading is less than 90% and as and when loading crosses 90%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
5.	220KV Maur	220/66, 1x100	85.73%	89.15%	PSTCL apprised that 1 No. additional 220/66KV, 100 MVA transformers shall be included in 3rd MYT 2023-26 to meet N-1 criteria.
6.	132KV IGC Bathinda	132/66, 2x50	81.15%	84.39%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
7.	132KV Malout	132/66, 2x25	95.12%	98.92%	PSTCL apprised that last year's maximum demand was temporary, otherwise the loading of 132/66 kV T/F is under 80% and PSPCL should shift some 66 KV sub-stations from Malout to 220 kV Katorewala. PSPCL also agreed upon this.
8.	220KV Ferozepur	132/66, 2x50	101.96%	106.03%	Regarding upgradation of Jhoke Hari Har from 66 kV to 220 kV, PSTCL requested PSPCL to give "Right to Use" to them to enable them to start work. PSPCL apprised that right to use of land case shall be put up for approval of WTDs of PSPCL. Meanwhile, PSPCL may shift some loads from 220 kV Ferozepur to nearby substations to manage the overloading at 220 kV Ferozepur.

9.	132KV Ferozeshah	132/66, 20+50	79.42%	82.60%	PSTCL apprised that loading is less than 100 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.

NORTH ZONE & BORDER ZONE

TABLE 4

Sr. No.	
	Regarding installation of 4th 132/11 kV, 20 MVA, PT/f at 132 kV S/S Pathankot
1	PSTCL has already planned 4th additional 132/11 kV, 20 MVA T/F at 132 kV S/S Pathankot vide Amendment No. 21/2021-22 dated 30.9.21. PSPCL apprised that demolition of the building at 132KV S/S Pathankot and is under process. PSTCL requested PSPCL to expedite it.
2	**Overloading at 132 kV S/S Nawanshahr** CE/DS North Zone PSPCL Jalandhar apprised that66 KV loads have been shifted from 132 kV Nawanshahar to 220 kV S/S Jadla to deload 132 kV Nawanshahr.
3	**PSPCL request for new 220 kV S/S at Ajnala** PSPCL intimated that since 220 kV Fatehgarh Churian is loaded beyond 80% in paddy 2022, so 66 kV Ajnala be upgraded to 220 kV level for reliable supply to consumers in the border areas of Amritsar District and to deload Fatehgarh Churian for which PSTCL agreed to the proposal with LILO of one circuit of Fathegarh Churian- Civil LInes Amritsar D/C Line.
4	**PSPCL request for new 220 kV S/S at Gadaipur (Jalandhar)** CE/DS North Zone PSPCL Jalandhar informed that land for a new 220kV sub-station at Gadaipur proposed in last TPC meeting has been refused. So an alternate proposal is being worked out by PSPCL for a new 220 kV S/S to deload the 220 kV Kartarpur and 220 kV BBMB. PSPCL will submit the complete proposal (including 66 kV line connectivity, proposed load and status of land) to PSTCL for further action.
5	**PSPCL request for new 132 kV S/S at Partapura (Jalandhar)** PSTCL apprised that Upgradation of 66 kV Chitti to 220 kV to deload 220 kV S/S Badshahpur and 66 kV Chitti has already been planned vide PSTCL/Planning amendment no 7/2022-23.
6	**Augmentation of 132/11 kV, 12.5 MVA to 132/11 kV at 220 kV S/S Sultanpur-** PSTCL apprised that Augmentation of 132/11 kV, 12.5 MVA to 132/11 kV, 20 MVA has already been planned vide Amendment No. 07/2018-19.
7	**Augmentations at 220 kV S/S Kartarpur** PSPCL has requested for augmentation of 220/66 kV T/F, 100 MVA to 160 MVA as loading has reached more than 80%. PSTCL agreed for the same in the 3rd MYT. Regarding 66/11kV T/F, PSTCL apprised that one no. additional 10/12.5 MVA T/F stands planned.
8	**Augmentations at 220 kV S/S BBMB Jalandhar** Regarding augmentation of one no. 100 MVA 220/66kV T/F to 160 MVA, PSPCL agreed to take up the matter with BBMB as the sub-station is under their control.

9	**Up-gradation of 132 kV S/S Tanda to 220 KV S/S** It was informed by PSTCL that 132 KV Tanda is proposed to be upgraded to 220 KV S/S with LILO of one circuit of 220 KV Jalandhar-Dasuya line to address issue of low voltage as reported by CE/P&M PSTCL with one 100 MVA auto transformer. It will also provide relief if the generation is very less at MHP. CE/DS North Zone PSPCL Jalandhar apprised the committee that 132/66 KV transformers at Bhogpur are fully loaded and two 66kV stations Kandhala Jattan and Kalyanpur will be shifted from 132 kV Bhogpur to 220 kV Tanda for which one 100 MVA, 220/66 kV T/F is required. PSTCL agreed to include the proposal in the MYT of 2023-26.
10	**Additional 20 MVA 132/11 kV transformer 132 kV S/S Kapurthala** It was apprised the committee that an additional 20 MVA 132/11 kV transformer has already been commissioned.
11	**Aug. of 1 No. 12.5 MVA to 20 MVA 132/11 kV transformer at 132 kV S/S Kathunangal-**PSTCL apprised that Aug. of 1 No. 12.5 MVA to 20 MVA 132/11 kV transformer has already been included in 2nd MYT 2020-23 at Sr. No. 63.
12	**Overloading at 220 kV S/S Patti-** CE/DS Border Zone PSPCL Amritsar proposed up-gradation of 66 KV Toot to 220 KV with LILO of one circuit of 220 KV Makhu-Algon to give relief to 220 KV Patti. PSTCL intimated that the proposal is being included in the 3rd MYT 2023-26. Moreover PSTCL stated that there is no space for 66 KV bay for 66 KV second circuit to Toot at Patti.
13	**Addl. 20 MVA 132/11 KV T/F at 132 kV Focal Point Jalandhar-** CE/DS North Zone PSPCL Jalandhar informed that maximum demand plus feasibility cases exceeds the 80% loading of 2x20MVA 132/11kV T/fs and requested for installation of addl 20MVA 132/11 kV with extension of control room. PSTCL agreed for the same subject to loading crossing 80%.
14	**132 kV Kahanpur** PSPCL requested for installation of 132/66 kV with extension of control room to provide 66 kV system at Kahanpur for meeting the requirement of industrial consumers. It was decided that the proposal regarding the same will be sent by CE/DS North Zone and PSTCL will examine it.

TABLE 5

Sr.no	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1.	220KV S/S Noormehal	66/11, 2x20	78.55%	81.69%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
2.	132KV Nakodar	132/11, 2x20	88.63%	92.17%	PSTCL apprised that Addl. 20 MVA 132/11 kV has already been planned vide Amend No. 08/22-23 dated 12.05.22.

3.	132KV Urban Estate	132/11, 2x20	77.95%	81.07%	PSTCL apprised that loading of the T/f is less than 80%. PSPCL also agreed and it was decided no additional T/f is required to be planned.
4.	220KV Mahilpur	132/11, 1x20 66/11, 1x20	96.60%	100.46%	PSTCL apprised that Addl. 12.5 MVA 66/11 kV already planned at Sr. No. 47 of 2nd MYT stands commissioned.
5.	220KV Banga	132/11, 2x20	96.30%	100.15%	PSTCL apprised that Addl. 20 MVA 132/11 kV already planned vide Amend No. 08/22-23 dated 12.05.22.
6.	220KV Kartarpur	66/11, 2x20	81.68%	84.94%	PSTCL apprised that Addl. 12.5 MVA 66/11 kV already planned at Sr. No. 48 of 2nd MYT and work is in progress.
7.	132KV Khera mandir	132/11, 2x20	78.50%	81.64%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
8.	132KV Bhogpur	132/11, 1x20+1x12.5	93.88%	97.63%	PSTCL apprised that Augmentation of 1 No. 12.5 MVA 132/11 KV to 20 MVA will be included in 3rd MYT 2023-26. PSPCL brought out this since M.D. on these T/fs has touched 97.63% as such planning of this work be preponed. PSTCL agreed for the same.
9.	132KV Sri Hargobindpur	132/11, 2x20	80.05%	83.25%	PSTCL apprised that Addl. 20 MVA 132/11 kV already planned at Sr. No. 65 of 2nd MYT.
10.	220KV Butari	66/11, 2x20	82.58%	85.88%	PSTCL apprised that Addl. 12.5 MVA 66/11 kV already planned at Sr. No. 50 of 2nd MYT .

TABLE 6

Sr. no.	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1.	220KV Badshahpur	220/66, 2X100	77.60%	80.70%	PSTCL apprised that Loading was 75.10% (8.7.21) & 80.10% (4.8.21). Further Addl. 100 MVA T/F has been included in 2nd MYT under N-1 contingency, which has been installed.
2	220KV Nawanshahr	132/66, 100	96.90%	100.78%	Already Discussed in Sr. no. 2 of Table No. 4
3	220KV Kartarpur	220/66, 160+100	78.83%	81.98%	Already Discussed in Sr. no. 7 of Table No. 4
4	132KV Bhogpur	132/66, 100	90.78%	94.41%	Already Discussed in Sr. no. 9 of Table No. 4

5	132KV Sri Hargobindpur	132/66, 50+16	79.02%	82.18	PSTCL apprised that proposal of upgradation of 132 kV Shri Hargobindpur to 220 kV is under study for evacuation system of proposed 400 KV Wadala Granthian and generation issues at MHP. PSPCL agreed for including it in 3rd MYT 2023-26.
6	220KV Dasuya	220/66, 100	88.00%	91.52%	PSTCL apprised that 2nd TF has already been installed.
7	220KV Mahilpur	220/132, 100	93.89%	97.65%	2nd Auto T/f has already been planned at 220 kV Banga. PSPCL proposed replacement of 2X50 MVA, 132/66 KV transformers at Banga with 2X100 MVA, 220/66 KV Power Transformers to address the issue of overloading. PSTCL agreed for the same subject to the use of power cable to connect 66 KV buses
8	220KV Science City	220/132, 100	86.60%	90.06%	PSTCL apprised that there is no space available for additional T/F requested by PSPCL. So PSPCL may facilitate/arrange adjoining land in Pushpa Gujral Science city.
9.	220KV Butari	220/132, 100	86.87%	90.34%	PSTCL apprised that 220 KV Beas is already planned and an additional connectivity proposal at 220 kV Jandiala with an auto transformer is under study. PSPCL agreed for the same to provide reliable supply to consumers of Amritsar. Work for making 220 kV Bus of Butari as double and shifting of 220/132 KV T/F of Butari to 220kV Jandiala is also proposed.

TABLE 7

BORDER ZONE

Sr. no	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1.	132KV Gurdaspur	132/11, 40	78.85%	82.00%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
2.	220KV Civil Lines Asr	66/11, 2x20	81.25%	84.50%	PSTCL apprised that Addl. 12.5 MVA 66/11 kV already planned vide Amend No. 08/22-23 dated 12.05.22.
3.	132KV Kathunangal	132/11, 1x12.5+1x20	80.86%	84.10%	PSTCL apprised that Aug of 12.5 MVA 132/11 kV to 20 MVA already planned at Sr. No. 63 of 2nd MYT.
4.	132KV Power Colony, Asr	132/11, 2x20	80.93%	84.16%	PSTCL apprised that Addl. 12.5 MVA 132/11 kV already planned vide Amend No. 08/22-23 dated 12.05.22.

5	220KV Rashiana	66/11 [illegible]	79.38%	8[illegible]55%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
6.	132KV Bhikhiwind	132/11, 1x12.566/11, 1x20	85.08%	88.48%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
7.	220KV Algon Kothi	66/11, 1x12.5+1x20	79.45%	82.62%	PSTCL apprised that Aug of 12.5 MVA 66/11 kV to 20 MVA already planned at Sr. No. 46 of 2nd MYT.
8.	220KV Chohla Sahib	66/11, 40	83.00%	86.32%	PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSPCL also agreed to the proposal.
9.	220KV Khasa	66/11, 32.5	85.57%	88.99%	PSTCL apprised that Aug of 12.5 MVA 66/11 kV to 20 MVA already planned at Sr. No. 45 of 2nd MYT.
10.	220KV Chogawan	66/11, 2x20	87.35%	90.84%	PSTCL apprised that Addl. 20 MVA 66/11 kV already planned vide Amend No. 08/22-23 dated 12.05.22.

TABLE 8

Sr no	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1.	220KV Tibber	220/66, 100	79.00%	82.16%	PSTCL informed that 2nd T/F has been commissioned.
2.	132KV Gurdaspur	132/66, 2X50	79.40%	82.58%	PSTCL apprised that the work of upgradation of 220 kV Gurdaspur is under progress.
3.	220KV Udhoke	220/66, 100	77.00%	80.08%	PSTCL apprised that work of Addl. 100 MVA T/F is under progress.
4.	220KV Majitha	220/66, 100	76.97%	80.05%	PSTCL apprised that Addl. 100 MVA has been included in the 2nd MYT
5.	220KV Patti	220/66, 260	93.11%	96.83%	Already discussed at Sr. No. 12 of Table-4
6.	132KV Tarn Taran	132/66, 75	80.47%	83.69%	PSTCL requested PSPCL to shift some 66 KV load from 132 kV Tarar. Taran to Rashiana PSPCL agreed for the same.

7.	220 KV Wadala Granthian	220/132, 200	100.00%	104.00%	PSTCL apprised that Addl. 3rd 100 MVA 220/132KV has already been planned vide Amendment no. 28/2021-22 issued on 9.12.2021
8.	220 Civil Line Asr	220/132, 100	• 87.70% (due to temporarily load by PC Patiala)	91.21%	PSTCL apprised that 2nd T/F under N-1 already stands planned.

SOUTH ZONE

TABLE 9

Sr. No	Agenda item	MOM
1	**220 kV S/S Ablowal**	PSPCL requested for extension in 11 KV control room building but PSTCL suggested PSPCL to shift some 11 kV feeders load from 220 kV S/S Ablowal to new 66 kV S/S Thapar University which will deload 220 kV S/S Ablowal. PSPCL intimated that erection of 11 kV feeders from Thapar university is not possible and thus a new 66 kV S/S nearby is being explored. CE/TS PSPCL suggested a new 66 KV S/S at Power Colony or some other nearby place.
2	**220 kV S/S Bangan-**	PSPCL requested for extension in 11 KV control room building along with augmentation of 20 MVA power T/F to 31.5 MVA. PSTCL apprised that 66 kV bays for Sailwala and Banarasi at 220 kV S/S Bangan have been planned vide Amendment No. 34/2021-22 dated 02.02.22 & 10/2022-23 dated 12.5.22. Further PSPCL requested to augment 20 MVA to 31.5 MVA 66/11 kV T/F along with Control room extension but PSTCL intimated that there is no space for Control room extension. CE/South PSPCL agreed for site visit at Bangan to check Control room extension or PSPCL will establish a new 66 kV S/S nearby.
3	**220 kV S/S Derabassi**	PSPCL requested for augmentation of one 220/66 KV, 100 MVA to 160 MVA and one 66/11 KV, 20 MVA to 31.5 MVA T/Fs. PSTCL apprised that loading is less than 80 %, so no augmentation is required and as and when loading crosses 80%, PSTCL will take action accordingly. PSTCL apprised that augmentation of 1 No. 20 MVA, 66/11kV to 31.5MVA transformer at 220kV S/S Derabassi has been planned vide Amendment No. 08/2022-23 dated 12.5.22 along with control room extension.
4	**220 kV S/S Kharar**	PSPCL requested for extension in 11 KV control room building along with augmentation of 20 MVA power T/F to 31.5 MVA. PSTCL apprised that 1 No. Addl. 20 MVA, 66/11 kV transformer at 220 kV S/S Kharar has been planned vide Amendment No. 8/2022-23 dated 12.5.22 and Augmentation of 100 MVA 220/66kV to 160 MVA has been planned vide amendment no. 25 dated 09.12.2021. PSPCL intimated that land is available near Bhukhdi village but not acquired by PSPCL till now for new 66 kV S/S. Further there is a ROW issue in the 66 kV incoming line at Bhukdi. PSPCL also intimated that there is no scope for further expansion at 220 KV Kharar, so it has proposed to PSTCL to explore the possibility of 66 kV Morinda or Kurali to 220 kV. ROW is not available at Morinda for 220 KV line but Kurali can be upgraded to 220 KV S/S. Proposal may be sent by PSPCL to shift load of Morinda to Kurali.

5	**Overloading at 132 kV S/S Ropar** PSTCL apprised that 2 x 20/25 MVA, 132/66kV transformers already planned at 132kV Chamkaur Sahib vide amendment no. 30/2021-22. PSPCL has intimated that they will explore constructing a new 66 kV S/S in vacant Thermal colony
6	**Up-gradation of 66 kV S/S Old Patiala (bus stand) to 220 KV-** PSPCL requested for the up-gradation of 66 KV Old Patiala to 220 KV S/S. PSTCL has apprised that Up-gradation of 66 kV Old Patiala to 220 kV level is already planned vide PSTCL planning amendment no 18/2021-22. But Right to use of land is still pending from PSPCL. PSPCL has assured to expedite the same.
7	**Up-gradation of 66 kV S/S Mubarakpur to 220 KV-** PSPCL requested for the up-gradation of 66 KV Mubarakpur to 220 KV S/S. PSTCL has apprised that Up-gradation of 66kV Mubarikpur to 220 kV level already planned vide PSTCL planning amendment no. 1/2022-23 dated 12.5.2022. But Right to use of land is still pending from PSPCL. PSPCL has assured to expedite the same.
8	**220 kV S/S Barnala (Handiaya)** PSPCL has requested for additional 20 MVA 66/11 KV T/F along with control room extension. PSTCL has apprised that loading is more than 85% and agreed to include addl. 10/12.5 MVA 66/11 KV T/F in the next MYT. PSPCL has also intimated that 66 kV Khuddi Kalan has also been proposed to deload 220 kV Barnala.
9	**220 kV S/S Malerkotla** PSTCL has apprised that loading is within limit. PSPCL has requested for control room extension at 220 kV Malerkotla. PSTCL agreed upon this.
10	**Establishing new 220 Kv S/S at Aerocity** PSPCL requested that about one acre land owned by GMADA for a new 66 kV substation may be examined by PSTCL for construction of 220 kV GIS substation Aerocity. PSTCL requested PSPCL to provide a copy of the master plan of land so that the possibility of setting up a new 220 kV GIS substation may be examined.

TABLE 10

Sr. no.	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1.	220KV Ablowal	66/11, 2 x 20 MVA	82.325 %	85.16%	As already discussed in sr. No. 1 of Table-9
2	220 KV Devigarh	66/11, 2 x 20 MVA	84.35 %	87.72 %	PSTCL has apprised that Additional 10/12.5 MVA 66/11 KV T/f will be included in 3rd MYT 2023-26.
3	220 KV Dhuri	1x 20 MVA and 1x 12.5 MVA	87.26%	90.75 %	PSTCL has apprised that Aug of 12.5 MVA to 20 MVA already planned at Sr. No. 42 of 2nd MYT.
4	220 KV Dhanaula	2x 20 MVA P/T/F	90 %	93.83 %	PSTCL has apprised that Additional 10/12.5 MVA 66/11 KV T/f will be included in 3rd MYT 2023-26.
5	220 KV Kharar	3x 20 MVA P/T/F	98.6%	102.5%	As already discussed in sr. No. 4 of Table-9

6	220 KV Banı	2x 20 MVA P/T/F	93.7%	97 %	PSTCL has apprised that Addl. 20 MVA 132/11 kV already planned at Sr. No. 44 of 2nd MYT.
7	220 KV Banga	2x 20 MVA P/T/F	81.5%	84.76%	PSTCL has apprised that Addl. 20 MVA 132/11 kV already planned vide Amend No. 08/22-23 dated 12.05.22.
8	132 KV Chamkaur Sahib	2x 132/11 KV, 20 MVA P/T/F	87.97 %	91.49%	PSTCL has apprised that 2 No. 20/25 MVA, 132/66 kV are planned vide Amend No. 30 dated 14.1.22. Further 1 No. 66/11 kV 12.5 MVA will be included in 3rd MYT 2023-26.
9	132 KV Ropar	2x 132/11 KV , 20 MVA P/T/F+ 1x 66/11 KV P/T/F	82 %	85.31%	As already discussed in sr. No. 5 of Table-9
10	220 KV Ghulal	1x 132/11 P/T/F(12.5)+ 2x 20 MVA 66/11 P/T/F	71.42 %	74.28%	PSTCL has intimated that replacement of 132/11 kV (12.5 MVA) with 20 MVA 66/11 kV at Ghulal is already planned.
11	220 KV BBMB Sangrur	1 x16 MVA and 1x 12.5 MVA 66/11 P/T/F	71.39 %	74.22 %	In the scope of BBMB
12	220 KV Kohara	4x20 MVA 66/11 P/T/F	71.60%	82.01%	PSTCL has apprised that Aug of 20 MVA 66/11 kV to 31.5 MVA vide Amend No. 08/22-23 dated 12.05.22 is planned.
13	220 KV Malerkotla	2x20 MVA 66/11 P/T/F	78.45%	82%	As already discussed in sr. No. 9 of Table-9

TABLE-11

Sr. no.	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1.	220 KV Toderpur (Rajla)	1x160 MVA, 1x100 MVA	75.32 %	85.21%	PSTCL apprised that the load is less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this.
2.	220 KV Kaheru (Dhuri)	3x100 MVA	73.15 %	84.61%	PSTCL apprised that the load is less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this.
3.	220 KV Malerkotla	2x160 MVA	77.69 %	82.9 %	PSTCL apprised that Recently 2X100 MVA t/fs got damaged at Malerkotla and 1X160 MVA T/f was installed in place of these two damaged transformers. 1X100 MVA T/f will be installed as and when required.

4.	220 KV Kohara	2x100 MVA	66.09 %	84.15 %	PSTCL apprised that Kohara will be deloaded with the new S/S coming up at Dhanansu.
5.	220 KV Barnala	2x100 MVA	81.64%	84.90 %	PSTCL apprised that the load is less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this.
6.	220 KV Rajpura	3x100 MVA	75.83%	85.75%	PSTCL agreed to augment 100 to 160 MVA on the request of PSPCL if loading in the current paddy season crosses 80%.
7.	220 KV Mohali -1	1x160 MVA, 2x100 MVA	86.5 %	89.96 %	PSTCL has apprised that one more 100 MVA has been augmented to 160 MVA.
8.	220 KV Kharar	1x160 MVA, 1x100 MVA	90.24%	93.85 %	PSTCL apprised that Aug. of 1x100MVA with 160 MVA vide Amendment no. 25/2021-22 issued on 9.12.2021.
9.	220 KV Banur	2x100 MVA	84.88%	88.27%	PSTCL apprised that Aug. of 1x100MVA with 160 MVA vide Amendment no. 2/2022-23 issued on 12.5.2022.
10.	220 KV Sunam	1x160 MVA, 2x100 MVA	77.01%	80.1%	PSTCL apprised that the load is less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this.
11.	132 KV Ropar	2x132/66 KV	92.8%	96.51%	Already discussed in Sr. No. 5 of Table-9
12.	220 KV Ghulal	2x100 MVA, 220/66	81%	81%	PSTCL apprised that Aug. of 1x100MVA with 160 MVA vide Amendment no. 3/2022-23 issued on 12.5.2022.

CENTRAL ZONE

TABLE 12

Sr. No	
1	**220 kV S/S Amloh** PSTCL apprised that 1 No. Addl. 20 MVA, 66/11 kV transformer at 220 kV S/S Amloh has been planned vide Amendment No. 08/2022-23 dated 12.5.22 alongwith control room extension as per demand of PSPCL.
2	**220 kV S/S Ikolaha** On the request of PSPCL to extend control room along with augmentation of 20 MVA T/F, PSTCL informed that there is no further scope of control room extension and PSPCL should shift some 11 kV load to its nearby substations to deload 220kV S/S Ikolaha. PSPCL informed that shifting of loads is already in process.
3	**220 kV S/S Gaunsgarh** On the request of PSPCL to extend control room along with augmentation of 20 MVA T/F, PSTCL apprised that 1 No. Addl. 20 MVA, 66/11 kV transformer at 220kV S/S Gaunsgarh has been planned vide Amendment No. 08/2022-23 dated 12.5.22 alongwith control room extension.
4	**220 kV S/S Lalton Kalan** On the request of PSPCL to extend control room along with augmentation of 20 MVA T/F, PSTCL apprised that load is less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this.

5	**220 kV S/S Humbran** On the request of PSPCL to extend control room along with augmentation of 20 MVA T/F, PSTCL apprised that 1 No. Addl. 20 MVA, 66/11 kV transformer at 220 kV S/S Humbran has been planned vide Amendment No. 08/2022-23 dated 12.5.22 alongwith control room extension.
6	**220 kV S/S GIS Sherpur, Ludhiana** PSTCL informed that Work is in progress and work is likely to be completed by Paddy, 2023. Civil work is in progress. Work allotted in 09/2019 and was to be completed by 03/21. But start of work got delayed due to shifting of 11 kV feeders and dismantlement of old building/ water tank by PSPCL. The site was cleared by PSPCL in March, 2021 and was handed over to the contractor for execution of work. Civil Works in the scope of PSTCL got delayed due to scarcity of material (sand, gravel and good earth).
7	**220 kV S/S Gill Road** PSPCL proposed up-gradation of 66 kV Gill Road to 220 kV which will give relief to overloaded 66 KV Lalton Kalan- Gill road D/C lines as up-gradation of conductor of these lines to HTLS is not possible as line passes over very thickly populated areas. PSTCL agreed to include the work in 3rd CP of MYT 2023-26 subject to the demolition of the 1912 complaint center and offices of DS organization. CE/DS Central & CE/P&M PSPCL gave consent to demolish/shift the complaint center 1912 to Power colony No-2 Sarabha Nagar.
8	**220 kV S/S Jhordan** PSPCL requested PSTCL to set up a new 220 KV S/S at Jhordan on land provided by panchayat to deload overloaded S/S at Pakhowal and overloaded lines from Jagraon as there is no scope for new lines from Jagraon due to ROW issues. PSTCL apprised that Amendment no. 23/2021-22 regarding creation of new 220 KV S/S Jhordan has already been issued by PSTCL. But the work could not be started as the panchayat land had not been handed over to PSTCL. PSTCL has requested to expedite the work of land handover to PSTCL. PSTCL agreed upon installation of 66/11KV T/F along with 11KV VCBs at the s/s as per MOM of CMDs of both the corporations.
9	**220 kV new S/S at 66 kV S/S Bhadson** PSPCL proposed new 220 kV S/S by upgrading 66 kV s/s Bhadson to deload 220 kV Amloh S/S to facilitate release of new connections. PSTCL intimated that this work is being included in 3rd CIP of MYT 2023-26 to evacuate power from PGCIL Patiala as one additional 500 MVA ICT is being installed.
10	**220 kV S/S Pharmaceutical Park, Wazirabad** PSTCL apprised that this work is already included in 2nd CIP of MYT 20-23. However, work could not be started because land to be handed over to PSTCL has not finalised by PSIEC.
11	**220 kV S/S Fatehgarh Neoyan** PSPCL proposed a new 220 kV S/S at Fatehgarh Neoyan to make alternative source of supply to 66 KV Substations fed from 220 KV S/S Mandi Gobindgarh-2 on panchayat land. PSPCL was requested to submit the complete proposal (including 66 kV line connectivity, proposed load and status of land) to PSTCL for further action.
12	**220 kV S/S Sahnewal** PSPCL requested for augmentation of one 20 MVA T/F to 31.5 MVA. PSTCL apprised that augmentation of 1 No. 20 MVA, 66/11 kV to 31.5 MVA transformer along with control room extension at 220 kV S/S Sahnewal has been planned vide Amendment No. 08/2022-23 dated 12.5.22.

13	**220 kV S/S Ghulal** PSPCL requested for augmentation of one 100 MVA T/F to 160 MVA. PSTCL apprised that augmentation of 1 No 100 MVA P/T/F with 160 MVA P/T/F at 220 KV S/S Ghulal has been planned vide amendment no. 3/12.5.22

TABLE-13

Sr. no	Name of S/S	Capacity of T/F's	Overall %age loading of S/S	Loading anticipated	MOM
1	220KV Ajitwal	66/11, 2 x 20 MVA	88.35%	91.88%	PSTCL apprised that Addl. 12.5 MVA 66/11 kV already planned vide Amend. No. 08/22-23 dated 12.05.22.
2	220KV Dharamkot	66/11, 2 x 20 MVA	78.35%	81.48%	PSTCL apprised that the load is less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this.
3	220KV Badhni Kalan	66/11, 2 x 20 MVA	91.49%	95.15%	PSTCL apprised that additional 20 MVA 66/11 KV T/F will be included in 3rd CP of MYT 2023-26.
4	220KV Swaddi Kalan	66/11, 2 x 20 MVA	85%	88.40%	PSTCL apprised that the load was less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this. PSPCL requested for building extension and PSTCL agreed to include the work in MYT.
5	220KV Doraha	66/11, 2 x 20 MVA	85.03%	88.43%	PSTCL apprised that Addl. 12.5 MVA 66/11 kV planned vide Sr. No. 56 of 2nd MYT has been commissioned
6	132KV Sihora	132/11, 2 x 20 MVA	79.07%	82.23%	PSTCL apprised that the load is less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this.
7	220KV Lalton Kalan	66/11, 2 x 20 MVA	82.28%	85.57%	PSTCL apprised that loading is less than 80%. PSTCL will plan as and when required. PSPCL also agreed upon this.
8	220KV Sahnewal	66/11, 3 x 20MVA	83.2%	86.53%	PSTCL apprised that Aug. of 20MVA 66/11kV T/F to 31.5MVA vide Amendment no. 08/22-23 dated 12.5.2022
9	220KV Humbran	66/11, 2 x 20 MVA	77.5%	80.60%	PSTCL apprised that Addl. 20 MVA 66/11 kV has already been planned vide Amend No. 08/22-23 dated 12.05.22 along with control room extension.

10	220KV Pakhowal	66/11, 2 x 20 MVA, 1x12.5	76.76%	79.83%	PSTCL agreed to augment 12.5 MVA T/F to 20 MVA in 3rd CIP of MYT
11	220KV Bassi Pathana	66/11, 2 x 20 MVA	84.08%	87.44%	PSTCL apprised that addl. 20 MVA 66/11 kV T/F has been planned vide Amend No. 08/22-23 dated 12.05.22.
12	220KV Dhandari Kalan -1	66/11, 2 x 20 MVA	78.5%	81.64%	PSTCL has intimated that Addl. T/F's can be planned at both the stations after the execution of the Double Bus bar arrangement.
13	220KV Dhandari Kalan -2	66/11, 2 x 20 MVA	80%	83.20%	
14	220KV Kohara	66/11, 2 x 20 MVA	80%	83.20%	PSTCL has apprised that Aug of 20 MVA 66/11 kV to 31.5 MVA has been planned vide Amend No. 08/22-23 dated 12.05.22.
15	220KV Goraya	66/11, 2 x 20 MVA	90.75%	94.38%	PSTCL apprised that Addl. 20 MVA 132/11 kV T/F has been planned vide Amend No. 08/22-23 dated 12.05.22.
16	220KV Gaunsgarh	66/11, 2 x 20 MVA	78.33%	81.46%	PSTCL apprised that Addl. 20 MVA 66/11 kV T/F along with control room extension has been planned vide Amend No. 08/22-23 dated 12.05.22.
17	400kV Makhu	400/200/33KV, 2 x 315 MVA (ICT-1 &2)	85.52%	88.94%	PSTCL apprised that 1 No. addl. 500 MVA ICT has already been commissioned

TABLE 14

Sr. no.	Name of S/S	MOM	
1	220 KV BBMB Jamalpur	Augmentation of 100 MVA P/T/F to 160 MVA	PSTCL apprised that Work has been completed.
2	220 KV DK-I	Augmentation of T-1 100 MVA P/T/F to 160 MVA (As per technical data in feasibility case of M/s Arora alloys (RID no. 100000015959), the percentage loading of 2 no. 100 MVA P/T/F's (220/66KV) is becoming 102.07%. The action to augment any 1 no. 100MVA P/T/F be carried out.	In the FCC meeting dated 12.05.2022, it was intimated to FCC that 1 No. 100 MVA 220/66 kV transformer at 220 kV Dhandari Kalan–1 substation can be augmented to 160 MVA by PSTCL subject to the condition that a shutdown of 100 MVA 220/66 kV T/f for 45-50 days is made available by PSPCL at the said substation. PSPCL clarified that a shutdown for so many days will not be possible. PSPCL informed in the TPC meeting that shutdown for 4-5 days may be given only after installation of 160 MVA at DK-2.

3	220 KV DK-II	Augmentation of 100 MVA P/T/F to 160 MVA (As per technical data in feasibility case of M/s National Industries (RID no. 100000017578) , the percentage loading of 2 no. 100 MVA P/T/F's (220/66KV) is becoming 103.03%. The action to augment any 1 no. 100MVA P/T/F with 160 MVA P/T/F be carried out)	PSTCL apprised that work has already been planned in MYT 2020 - 23
4	220 KV Ikolaha	Additional P/T/F of 160 MVA	PSTCL apprised that the addl. T/F has been planned under N-1 contingency conditions.
5	220 KV Amloh	Augmentation of Existing 1x 100 MVA P/T/F with 160 MVA or installing additional 1 no. new 1x100 MVA	PSTCL apprised that work has been completed to augment 100 MVA with 160 MVA vide Amendment no. 11/2022-23 issued on 27.5.2022
6	220 KV Sahnewal	Augmentation of Existing 1x 100 MVA P/T/F with 160 MVA (As per technical data in feasibility case of M/s Oster India Pvt. Ltd (RID no. 100000018186), the percentage loading of existing P/T/F's (220/66KV) is becoming 91.02%. The action to augment 100MVA P/T/F with 160 MVA P/T/F is carried out.)	PSTCL apprised that Aug. of 100 MVA with 160 MVA has been planned vide Amendment no. 3/2022-23 issued on 12.5.2022
7	220KV S/S G-3 Mandi Gobindgarh	As per technical data in FCC case of M/s ANJ Metal RECYCLING PVT. LTD., village Tooran, Amloh Road, Mandi Gobindgarh (RID no. 100000008284) , the percentage loading of 2 no. 100 MVA P/T/F's (220/66KV) is becoming 91.73%. The action to augment any 1 no. 100MVA P/T/F with 160 MVA P/T/F be carried out.	PSTCL agreed to include the proposal in next MYT
8	220KV S/S G-1 Mandi Gobindgarh	To expedite the proposal to augment 2 no. 220/66 P/T/F's 100 MVA with 160 MVA at 220KV S/S G-1 Mandi Gobindgarh be carried out.	PSTCL apprised that Aug. of 2x 100MVA with 160 MVA has been planned vide Amendment no. 6/2022-23 issued on 12.5.2022

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ADDITIONAL AGENDA OF PLANNING PSPCL/PSTCL DISCUSSED IN TPC MEETING

TABLE 15

		MOM
1(PSTCL)	Regarding planning of 66 kV bays at 220 kV S/S Sandhwan-132 kV S/S Kotkapura.	The work of 132 kV Kotakpura-Sandhwan 220 kV line has been placed at PSPCL TWL 2019-20 Sr. No. 17/WZ/2019-20/ Annexure-A, TWL 2020-21/2021-22 Sr. No. 15/WZ/2020-21 &2021-22/ Annexure-A & TWL 2022-23 Sr. No. 12/WZ/2022-23/Annex-A for which 2 No. 66 kV line bays each at 220 kV Sandhwan and 132 kV Kotakpura are to be executed by PSTCL. In this regard, clarification of 66 kV bays at 220 kV Sandhwan and 132 kV Kotakpura was sought from Dy. CE/Transmission Planning, PSPCL, Patiala. PSPCL agreed to clarify the same.
2(PSTCL)	Regarding extension of control room building at various s/stns. of PSTCL.	PSTCL informed that a proposal of extension of control room building at various 132/220 kV s/stns.(56 No.) of PSTCL has been received from CE/P&M, PSPCL, Ludhiana to accommodate installation of new VCBs for bifurcation cases/ newly erected 11 kV feeders. In the TPC meeting, PSPCL informed that they will review the list and will send the priority list again to PSTCL.
3(PSTCL)	66kV HTLS lines: PSPCL has planned replacement of ACSR conductor with HTLS conductor at certain 66kV transmission lines emanating from 220kV substations.	PSPCL agreed to provide the list of 66 kV lines which are planned to be augmented to HTLS.
4(PSPCL)	Upgradation of 66 KV Bhabat S/S to 220 KV	PSPCL was requested to send a complete proposal to include the up-gradation of 66 KV Bhabat S/S to 220 KV in 3rd MYT 2023-26.
5(PSTCL)	66 KV Line from 220 KV Kharar to 220 KV S/S Banur	This work has been placed at PSPCL TWL 2019-20 Sr. No. 91/SZ/2019-20/Annex-D, TWL 2020-21/2021-22 Sr. No. 99/SZ/2020-21 &2021-22/ Annex.-D & TWL 2022-23 Sr. No. 125/SZ/2022-23/Annex-D. 1 No. 66 KV line bay for 66 KV Ansal Plaza at 220 KV S/S Kharar has already been planned vide PSTCL amendment No. 38/2014-15 dated 11.03.15. Clarification regarding the requirement of an additional 66 kV bay at Banur has been sought from PSPCL Planning. CE/South informed that no bay is required at Kharar. Further, PSPCL/Planning will also clarify the same.

6(PSTCL)	66 KV Line from 220 KV Rashiana to 66 kV Focal Point Taran Taran	It is submitted that this work has been placed at PSPCL TWL 2019-20 Sr. No. 21/BZ/2019-20/Annexure-A, TWL 20-21/21-22 Sr. No. 21/BZ/20-21&21-22/ Annex-A & TWL 2022-23 Sr. No. 13/BZ/2022-23/Annex-A. 1 No. 66 KV line bay for 66 kV Focal Point Taran Taran at 220 KV S/S Rashiana has already been planned vide PSTCL amendment No. 38/2014-15 dated 11.03.15. Clarification regarding the requirement of an additional 66 kV bay at Rashiana has been sought from PSPCL Planning. PSPCL/Planning will clarify the same.
7(PSTCL)	66 KV line line from 220 KV Patti to 66 KV Toot.	It is submitted that this work has been placed at PSPCL TWL 2019-20 Sr. No. 33/BZ/2019-20/Annex-B, TWL 20-21/21-22 Sr. No. 36/BZ/20-21&21-22/ Annex-B & TWL 2022-23 Sr. No. 32/BZ/2022-23/Annex-B. It was intimated to PSPCL vide this memo No. 1711 dtd. 09/09/20 (email dtd. 10/09/20) & 1314 dtd. 03/06/21 (email dtd. 03/06/21) that there is no space available in the yard at 220 KV Patti for construction of 66 KV line bay. To give relief to Patti, up-gradation of Toot to 220 KV is being included in 3rd CP of MYT 2023-26.
8(PSTCL)	Upgradation of 66 kV substation Chaheru to 220 kV	PSPCL requested for up-gradation of 66 KV Chaheru to 220 KV to give relief to Jamsher, Phagwara and Rihana Jattan. PSTCL apprised that upgradation of 66 kV substation Chaheru to 220 kV will be included in 3rd CP of MYT 2023-26.

LIST OF SUBSTATIONS BEING PROPOSED IN 3rd MYT 2023-26 BY PSTCL			
1	Upgradation of 132 kV Samadh Bhai to 220 kV level	LILO of both circuits of 220 kV Baghapurana – Bajakhana line (LILO Length –8km, 0.4Sq").	PSTCL apprised that this S/S will give relief to Bajakhana & Himmatpura. Shifting of load of Deena Sahib and Patto Heera Singh from Himmatpura and Bhagta Bhai Ka from Bajakhana. PSPCL informed that 2X160 MVA power T/Fs are overloaded at GHTP Lehra Mohabbat also. So they need up-gradation of Bhagta Bhai Ka to 220 KV also along with Samadh Bhai. PSPCL plans to shift from GHTP two 66 KV S/Ss to Bhagta and one 66 KV S/S to Bhagta Bhai Ka as per proposal submitted by CE/P&M PSPCL & CE/DS (West). PSTCL agreed for the same

2	Upgradation of 66 kV Bija/Chawa to 220 kV level with installation of 2 X 100 MVA, 220/66 kV transformers.	For evacuation of Dhanansu by LILO of one circuit of Dhanansu- Doraha	PSTCL apprised that proposal of this substation was received from PSPCL for upcoming loads in and around Sahnewal/ Doraha. Therefore it will be included in 3rd CP of MYT 2023-26 by PSTCL.
3	Upgradation of 66 kV Chourwala to 220 kV level with installation of 2X160 MVA, 220/66 kV transformers.	LILO of both circuits of 400 kV Rajpura – 220 kV Gobindgarh-1 line (HTLS) (8 km, 0.4Sq" equivalent)	Proposal of up-gradation has been received from CE/Central PSPCL to de-load 220 KV S/S G-1 to facilitate release of new connections. PSTCL agreed to include the upgradation of this S/S in 3rd CP of MYT.
4	Upgradation of 132 kV Jandiala Guru to 220 kV level with installation of 2 X 100 MVA, 220/132 kV transformers.	LILO of 220 kV Butari – Verpal circuit on multi-circuit/moder techniques (4km, 0.4Sq")	To address the problems in the walled city of Amritsar a committee was constituted by Director/T. As per recommendation of committee to give reliable supply to Amritsar city it was proposed to upgrade Jandiala by shifting 220/132 Kv 100 MVA auto T/F from Butari to inject power at Verka to provide reliable supply in event of constraints in Batala- Verka D/C line or 132 KV bus at Verpal.
5	Upgradation of 132 kV Sri Hargobindpur to 220 kV level with installation of 1 X 100 MVA, 220/132 kV & 1X100 MVA 220/66 KV transformers.	D/C From 400 KV Wadala Granthian (28km, 0.4Sq")	PSTCL apprised that this substation is required for evacuation of power as a downstream network of 400 kV Wadala Granthian. In addition it will address the problems of constraints at MHP when all the machines are shut due to low water or silt as MHP is a run off the river project. PSPCL agreed to the proposal.
6	Upgradation of 66 kV Giaspura to 220 kV level with installation of 2X160 MVA, 220/66 kV transformers.	LILO of 400 kV Ludhiana – 220 kV Dhandari Kalan (1.5km , 0.4Sq") Multi circuit towers/Modern techniques	Proposal of up-gradation has been received from CE/Central and CE/P&M PSPCL to de-load 220 KV S/S Sahnewal to facilitate release of new connections in Kanganwal area and shift 66 KV Singla Cycles. PSTCL agreed to include the upgradation of this S/S in 3rd CP of MYT.

7	400KV Wadala Granthian	LILO of both circuits of 400KV Kullu/Banala - Amritsar/Jalandhar line of PGCIL **OR** LILO of both circuits of 400KV Jalandhar - Samba line of PGCIL **OR** LILO of both circuits of 400KV Moga - Kishenpur of PGCIL	To increase ATC/TTC limit of State in future

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